

MEETING NOTES

**SOUTH CAROLINA ELECTRIC & GAS COMPANY
Joint RCG Meeting**

July 18, 2017

Final KMK 08-21-17

ATTENDEES:

Bill Argentieri (SCE&G)	Dick Christie (SCDNR)
Ray Ammarell (SCE&G)	Bill Marshall (SCDNR)
Randy Mahan (SCE&G)	Ron Ahle (SCDNR)
Caleb Gaston (SCE&G)	Bill Stangler (Congaree Riverkeeper)
Brandon Stutts (SCE&G)	Henry Mealing (Kleinschmidt)
Beth Trump (SCE&G)	Alison Jakupca (Kleinschmidt)
Melanie Olds (USFWS)	Kelly Kirven (Kleinschmidt)
Fritz Rohde (NOAA) via conf. call	Jordan Johnson (Kleinschmidt)
Alex Pellett (SCDNR)	

These notes are a summary of the major points presented during the meeting and are not intended to be a transcript or analysis of the meeting.

Henry opened the meeting with a safety moment and introductions. The purpose of the meeting was to review the remaining Adaptive Management Plans (AMPs) and Monitoring Plans that were not discussed at the previous AMP meeting on July 13, 2017. Specifically, stakeholders discussed the West Channel AMP, the Monticello Habitat Enhancement Plan, the Erosion Monitoring Plan, the Entrainment/Hydroacoustics study plan, the Turbine Venting Plan, and the revisions made to the Recreation Management Plan.

West Channel AMP

The group began with a discussion of the West Channel AMP, starting with the randomized sampling grid that Ron developed for the plan. Henry said that Kleinschmidt modified the grid by removing areas that stay de-watered due to higher elevations. Henry also said that Kleinschmidt added a line in the text to specify that sampling could occur anywhere within a chosen grid, not necessarily at the mid-point.

Ron said he would like to simplify the goals and objectives section of the AMP. He stated that he believes the goal of the AMP is to enhance aquatic habitat by increasing flows and improving oxygen levels. Henry said that SCE&G's goal is to increase the dissolved oxygen (DO) to a level that is acceptable to SCDHEC. Henry said that in order to accomplish that goal flows would need to be increased in the west channel. Increased flows and increased DO would create improved habitat. Ron said that he believes the health of the aquatic ecosystem is the overall goal and, while increased DO is an important part of that goal, it is not the overall goal. Bill A. said that his concern is if DO is improved but species abundance and diversity doesn't increase, does that mean

the objective has failed. Ron said that he doesn't think that would indicate failure because the habitat was still improved. Henry noted that SCDNR's goal all along is to improve the aquatic habitat in the west channel. The reason that SCE&G pursued the issue is because SCDHEC said the DO in the area would be an issue for obtaining a 401 water quality certification. Dick said that the goals and objectives are not very well defined in the AMP. He said if SCE&G could agree that the overall goal of the AMP is to enhance aquatic habitat, the objectives could be to try to meet state DO standards specifically during the summer months and to maintain and/or enhance flows to the area.

Ron said that transects for the IFIM study were picked in the west channel area to see what flows are best for certain species. Henry said that other stakeholders have expressed concern over how much flow is going to be removed from the east channel to the west channel and how this will affect the species in the east channel. Henry also stated that he believes the habitat in the west channel is never going to be as good as that in the east channel. Ron asked why. Henry said that 70 percent of the west channel area is a long deep pool area. Ron said he believes there is a lot of potential habitat in the west channel that could be improved.

Henry said when channel modifications to admit more water to the west channel begin, it should be done incrementally and in consultation with the Review Committee, to determine how the modifications affect the east and west channels. Melanie said that the USFWS is interested in improving the west channel, but they don't want those improvements to negatively affect the east channel.

The group agreed to revise the goals and objectives section. Henry said that the plan should be clear and concise so that it isn't misconstrued later. Ron said that he doesn't believe meeting the state standard for water quality and DO is what should indicate success in the west channel. He believes that increased WUA is important and the AMP shouldn't focus solely on water quality. The group reached consensus on the revised goals and objectives for the AMP.

In the AMP, wording was added to explain that channel modifications are contingent upon US Army Corps of Engineers permitting. Brandon said that these permits are good for two years. Henry said that other considerations for the timing of channel modifications should include spawning seasons and potential future critical habitat designations in the area – Atlantic sturgeon for example.

The group discussed additional modifications to the DO random sampling grid. Melanie said that the grids where the continuous sampling will occur should be removed. The grids should also be renumbered.

Melanie said that the plan should specify the minimum number of random samples that will be taken in the west channel and at what frequency. The group agreed that 10 percent of the sites should be sampled. The sites should be chosen randomly and should be stratified, with a greater number of samples being taken upstream of the 213 bridge. The group agreed that a study plan will need to be developed and submitted to FERC after the license is issued. The group also agreed to change the title of this AMP to "Adaptive Management Plan: Enhancements to the West Channel Downstream of Parr Shoals Dam."

Monticello Reservoir Habitat Enhancement Plan

Henry said that the group should focus specifically on Section 5.0 of this plan, where the protection, mitigation and enhancement (PME) measures are spelled out. Henry said he believes that after SCE&G files this plan, FERC will ask for a study plan explaining how enhancements will be implemented.

Melanie said that the wording included in the plan regarding no long term monitoring was confusing and seemed to imply that short term monitoring would take place. This wording was changed to specify that no monitoring would occur. Dick said that SCDNR may do some monitoring with grad students. Melanie also asked if any maintenance of the structures would occur. Caleb said that SCDNR requested the installation of the structures and assured the group that the structures are effective, based on past studies. These structures are also permanent and will not fall apart over time, so maintenance shouldn't be necessary.

Ron said that the structures should be fitted with labels that include owner information. Signs should also be installed at each public boat ramp informing the public that a habitat enhancement program is underway and not to disturb the structures if they encounter them.

Erosion Monitoring Plan

The group discussed the comments that Bill M. submitted on the Erosion Monitoring Plan. Bill M. asked that more details be included within each erosion category. Ray said that vegetation was included as part of each erosion category description because it is used to visually indicate how much erosion is occurring. If trees are downed along the shoreline, then the area is likely eroding. Bill M. asked where they are looking for vegetation. Ray said they look in areas with scarp. If root balls are visible and if trees have recently fallen at the base of the scarp, this indicates erosion. Ray said that the categories are subjective, so they try to have the same person perform the monitoring every year to reduce variability.

Bill M. said he would like the category descriptions to be more measureable. He said that at the Keowee-Toxaway Project, scarp height was used to indicate erosion. Ray edited the plan to specify that if an area of active shoreline erosion is identified, measurements will be taken or reference pins will be installed to verify the severity of the erosion quantitatively. Bill A noted that the revised wording will need to be agreed to by the Dam Safety Department prior to finalization.

Entrainment/Hydroacoustic Study Plan

Henry told the group that SCE&G and Kleinschmidt performed additional analysis as part of the Entrainment Study using information that Bill M. sent over from previous Duke Energy studies. Dick said that the additional analysis wasn't completed exactly how SCDNR expected.

Henry said that SCE&G has committed to performing a hydroacoustic study in August, to examine species composition and how lights at the Project intake areas affect entrainment. Don Degan with Aquacoustics, Inc. will be working with Kleinschmidt and SCE&G to perform the study. Dick asked if Don has done a similar type of "lights on/lights off" evaluation previously. Henry said yes, at Lake Russell. Dick asked if there was an idea of the number of hours or the amount of effort that was going to be dedicated to the "lights on/lights off" experiment. Ray said operations will be off

each night for approximately three hours. Dick said he was a little concerned about a snap shot approach, but it sounds like that will be covered. Henry said that he talked with Don about timing of the study, and he indicated that August is the best time of year to examine how lights affect shad. Dick said if data is collected that shows what he thinks is happening (a relationship between entrainment and lights), improving entrainment will be a matter of modifying the lighting at the Project. However, if the data doesn't verify this relationship, the question is raised as to whether a relationship exists or is more data needed.

Henry said that stakeholders can observe the study if they are interested. An email will be sent out closer to the study to see if anyone is interested.

Melanie asked if the enhancements that are planned for Monticello Reservoir are located far away from the intakes. Henry said yes, that was taken into account when the enhancements areas were chosen. Melanie said that if entrainment is an issue for the reservoir, why would you want to enhance habitat and produce more fish? Henry said the habitat enhancement is being completed to help offset entrainment, but it could also encourage entrainment. The enhancements will be used to increase densities of fish higher in the lake, away from the intakes. Information on how site selection was made is included in the Monticello Habitat Enhancement Plan. This information will also be reflected in the analysis section of the Final License Application.

Turbine Venting Plan

All stakeholders indicated they were fine with this plan as it stands.

Recreation Management Plan

Alison explained that the land on which the Enoree River Bridge Recreation Site sits is owned by the US Forest Service (USFS). So before enhancements are completed at this site, SCE&G will need to gain approval for these enhancements from the USFS. Two footnotes were added to the Recreation Management Plan indicating this. Alison said that the USFS will likely need to complete the NEPA process and contact the SHPO about these enhancements, which will affect how long it will take to implement the enhancements. Alison said that the USFS may want to categorically exclude this from NEPA. They will still need to consult with SHPO, however, this process should be fairly straightforward.

Alison also discussed the existing sand-mining operation located in the Parr Reservoir, near the Highway 34 Recreation Site. She said that some of the stakeholders may be aware of a similar operation at the Duke Energy 99 Islands Project. Duke is in the process of obtaining a license amendment from FERC to allow the sand-mining operation to continue. SCE&G will likely have to do something similar to address sand-mining in the Parr Reservoir. Bill S. told the group that he receives phone calls every few months regarding the oil sheen from fuel spills/leaks from the sand-mining operation. Bill A. said that he spoke with the contractor who runs the sand-mining operation and he indicated that he would like to continue to operate in the area. Bill A. said he spoke with FERC and they asked him to write a letter explaining the situation. FERC will then respond by asking SCE&G to either file a request for non-Project use of Project lands and waters, or shut down the operation. SCE&G will need to consult with the agencies on this matter. SCE&G will also include this issue in the Final License Application.

Following this discussion, the meeting adjourned. Action items are listed below.

ACTION ITEMS:

- SCE&G and Kleinschmidt will make all of the edits to the West Channel AMP, Monticello Habitat Enhancement Plan, and Erosion Monitoring Plan that were discussed in the meeting.
 - West Channel AMP - the grids where the continuous sampling will occur should be removed
 - West Channel AMP - the grids should also be renumbered
 - West Channel AMP - ten percent of the sites should be sampled.
 - West Channel AMP - the sites should be chosen randomly and should be stratified, with a greater number of samples being taken upstream of the 213 bridge
 - Monticello Reservoir Habitat Enhancement Plan - the structures should be fitted with labels that include owner information
 - Monticello Reservoir Habitat Enhancement Plan - Signs should also be installed at each public boat ramp informing the public that a habitat enhancement program is underway and not to disturb the structures if they encounter them
 - Erosion Monitoring Plan – changes were incorporated during the meeting
- Kleinschmidt will send an email to stakeholders prior to the hydroacoustic study to see if anyone is interested in observing.
- SCE&G Dam Safety Department will need to approve changes to Erosion Monitoring Plan.
- Kleinschmidt will include write-up of the mining operation in the Final License Application.