

MEETING NOTES

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

August 10, 2017

Final KMK 09-05-17

ATTENDEES:

Bill Argentieri (SCE&G)	Dick Christie (SCDNR)
Ray Ammarell (SCE&G)	Bill Marshall (SCDNR)
Randy Mahan (SCE&G)	Ron Ahle (SCDNR)
Corbin Johnson (SCE&G)	Andrew Hook (SCDNR)
Caleb Gaston (SCE&G)	Gerrit Jobsis (American Rivers)
Brandon Stutts (SCE&G)	Bill Stangler (Congaree Riverkeeper)
Melanie Olds (USFWS)	Henry Mealing (Kleinschmidt)
Rusty Wenerick (SCDHEC)	Alison Jakupca (Kleinschmidt)
Pace Wilber (NOAA) via conf. call	Kelly Kirven (Kleinschmidt)
Fritz Rohde (NOAA) via conf. call	

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 this meeting was to review and discuss Appendix A of the Comprehensive Relicensing Settlement Agreement (CRSA) including the revised Adaptive Management Plans (AMPs) and Monitoring Plans, and Appendix B including the off-license agreements under development.

CRSA Appendix A

Gerrit said that a sentence should be added to the introduction that says the agreements listed in Appendix A will be incorporated as proposed license articles. Gerrit said he thought we would submit draft license articles to FERC later. The group agreed to include a new appendix to the CRSA (Appendix E) that will include proposed wording for the license articles. The group agreed that if FERC changes a particular plan, that plan will be replaced in Appendix A with the FERC-approved version and will be marked as such on the cover page.

Bill M. said that for some of the Duke Energy projects he has worked on, the settlement agreements included specific information on the proposed protection, mitigation and enhancement (PM&E) measure, such as Recreation Management Plan (RMP) improvements. This way, if FERC changes the RMP, the improvements agreed to by the licensee and stakeholders are still captured in the settlement agreement.

Henry said that the current Entrainment Report can be modified to include PM&E measures, renamed as the Entrainment Plan, and included in Appendix A.

Downstream Flow Fluctuations AMP

Pace said that he is afraid that the Protective Resources Division (PRD) of NOAA Fisheries will not view this AMP as sufficient in addressing sturgeon concerns. He said that any supplemental information that could show the quantitative reduction in peaking would be helpful. Henry reminded the group that Parr is not a storage project and that the group has been struggling with this for over a year because the fluctuation and the affected river hydrology are unpredictable and change, year to year, month to month, and day to day. This makes it difficult to predict with scientific accuracy, a percentage of fluctuation reductions. Gerrit said that the goal is to minimize fluctuations and make the downstream flow mimic natural flow as closely as possible. He said he has been looking at other projects that reregulate flows from upstream. Dominion developed an optimization model to help their plants coordinate operations. The optimization model used inflow forecasting to predict flows ahead of time, allowing operators to better control the projects. Gerrit said this is something that could be done at the Parr Project. Ray said he has tried to do this in a basic way. Right now, SCE&G is proposing to man the plant 24/7 during the four week spring spawning period to control reservoir levels with gate positions and reduce the downstream fluctuations. He said right now, SCE&G isn't looking to develop a model that tracks flows. SCE&G has committed to the AMP as it is written. Ray said he was hoping that over the course of the 5-year AMP, results would show that automating the system would be best. While SCE&G is not in a position to commit to a model at this time, this is something that could be examined during the AMP. Ray said that language can be added to the AMP that mentions the possible development of a model. Gerrit will provide this language and reference other projects where an optimization model has been developed.

Dick said that, while the AMP provides the opportunity to evaluate options to optimize the project, he heard Pace ask for additional information now. Ray said he can look at some spreadsheets that might show how the measures proposed in the Downstream Flow Fluctuation AMP will work. Pace said that he can guarantee that if this information isn't included in the AMP, PRD will ask for it. Providing the information now will allow the process to run more smoothly and hopefully allow NOAA to sign the CRSA. He asked if the list of meeting notes referenced in the AMP can be consolidated for easier viewing – perhaps in a PowerPoint presentation. Henry said yes, Kleinschmidt will summarize the notes and send it out to stakeholders by the end of September. Pace said that the PRD needs to ensure there are no issues with NOAA's section 7 consultation, or they will have to withdraw from the CRSA. Bill A. also offered SCE&G's help with the presentation of the information to the PRD if that would help with the approval process.

Minimum Flow AMP

Bill M. sent in comments regarding the operation margin language in the AMP. The group reviewed his edits and everyone agreed to include them in the final AMP.

West Channel AMP

Ron said he still has issues with the goals and objectives section in the AMP. He said that the goal of the AMP should be to increase flows with an outcome of increased DO, stabilized temperature

and improved or maintained aquatic habitat. Ron said that, during the low minimum flow period, if the channel is able to carry 200 cfs to the west channel when the overall minimum flow is 1000 cfs, and he knows that the 200 cfs is going to the west channel during these low flow periods, then he is okay with that. The lowest flow going to the west channel will always be 200 cfs (unless inflow doesn't allow for this). When flows are higher, more flow will go to the west channel. Ron said that there should be the possibility of a gate being dropped to flush out the west channel during extremely low flow periods.

The group agreed that existing IFIM data could be used to determine whether the increased flows also are increasing aquatic habitat. SCE&G and Kleinschmidt will revise the AMP to include a section on how IFIM data could be used to examine aquatic habitat changes. Brandon mentioned that wording also needs to be added to the AMP about the potential for a critical habitat designation for sturgeon in the west channel by NOAA Fisheries. The NOAA ruling on sturgeon will be issued publicly on August 18, 2017 and the group will include pertinent sections applicable to the Parr AMP.

SCDNR Memorandum of Understanding

Dick said that one goal of the Memorandum of Understanding (MOU) is to establish better communication with SCE&G on different issues, including the draining and filling of the Broad River Waterfowl Area impoundment. SCDNR proposed a simple protocol that addresses this issue. Andrew said that SCDNR's primary goal is to flood the impoundments during the peak migration times (November 1-15). SCDNR should be able to completely or almost completely fill the impoundments in 72 hours without the use of pumps or additional work from staff, if Parr Reservoir is held at a high elevation. SCDNR requested that SCE&G inform them when the reservoir level is going to be lowered, so that they can close the gates and not lose the water they already have in the impoundments. Basically, SCDNR would like to be notified when there is going to be a change in water level. Bill A. said Parr Reservoir isn't usually above 265' at that time of the year. He asked Andrew if a level of 262' or 260' would work. Andrew said yes, that would work with the addition of the pumps. He said that even 24 hours would be helpful, if a full 72 hours isn't possible. Andrew and Bill A. also discussed the best scenarios for draining the impoundments each year. Andrew said that a reservoir level of 258' or lower for 12 hours would be acceptable. SCDNR prefers to drain the impoundments by March 1st, so that the land can dry out and be planted during the summer. Andrew noted that the requested elevations for just a few hours a day to flood and drain the fields, would be beneficial to SCDNR. The main takeaway from the discussion was that increased communication between SCDNR and SCE&G is needed. Henry noted that SCDNR should contact SCE&G at the beginning of October and February to schedule these activities and not place that responsibility on SCE&G. Bill A said he would revise this section of the proposed agreement as discussed in the meeting and check with System Control's ability to support this request. If agreed to, a test run could be done this fall and next spring.

Towards the end of the meeting, the group revisited the SCDNR MOU. The group discussed 1) the marking of boating hazards in the Project reservoirs and 2) channel navigation in Cannon's Creek and Heller's Creek. Henry asked about the proposed selective removal of stumps in the creeks. What would this effort include? Bill M. said he isn't sure of the extent of the problem, but he doesn't envision this being a big project. Dick said you would first need to mark a channel, then removal the stumps that are within that channel. Brandon said that this would require underwater cutting to cut the stumps out. Pulling them out could lead to sedimentation and would remove fish

habitat. Regarding the marking of boating hazards in the reservoirs, it was questioned whether this was feasible for Parr since there is a large number of potential hazards to be marked. Bill M. said the proposal on marking of hazards in reservoirs should be changed to refer to Monticello only. Henry suggested including these agreements with SCDNR as an off-license agreement, rather than in a separate MOU, so that this doesn't get included as a license article that doesn't have any flexibility.

American Eel Monitoring Plan

Melanie said that she likes the flexibility of developing a study plan after the American Eel Monitoring Plan is approved by FERC. Bill A. said he doesn't think 120 days after the license is issued is enough time to develop a study plan. The group agreed to change the schedule to say that a study plan will be submitted to FERC within 180 days after the license is issued.

Freshwater Mussel Monitoring Plan

The group approved the edits to the mussel monitoring plan. Bill A. asked that the schedule be changed to say that a study plan will be submitted to FERC within 180 days after the license is issued and the group agreed.

CRSA Appendix B

Gerrit said that an introductory statement should be included in Appendix B, similar to the one that is in Appendix A.

Ron said that he doesn't believe the Shoreline Management Plan Handbook should be included in the off-license agreements. The group discussed this and agreed to remove it from this appendix.

The group agreed to discuss the various off-license agreements and then return to the Appendix B and discuss its structure.

SCDNR Land Proposal and Habitat Enhancement Program

Bill M. said that SCDNR previously expressed interest in land conservation and recommend land protection as an additional PME measure during meetings of March 2017. He said that SCDNR informally shared a set of maps with SCE&G in March that included 14 properties they were interested in setting aside for land conservation. Bill M. said that their interest in land protection is flexible. Permanent protection is preferred by SCDNR but understanding SCE&G's position, SCDNR is suggesting that land protection be established for the license term by: 1) developing a relicensing agreement to limit uses and sale of parcels, 2) bringing parcels into the Project Boundary, or 3) leasing parcels to an entity for public recreation and conservation purposes. Bill A. asked if SCDNR could prioritize the parcels according to which ones they believe are more important for protection. Bill M. said that the 7 parcels on the Broad River near the islands (Haltiwanger and Huffman) are highest priority. Among these, the five parcels on the west bank in Richland County would have higher priority since Richland County has a higher potential for development and future possibilities for establishing public access might be greater there among the identified properties. Parcels in Fairfield County are second in priority.

Bill A. asked if, in the term “forestry” in the suggested language that SCDNR provided to include within a relicensing agreement, means that SCE&G could still use the land for timbering. Bill M. said yes. SCDNR is interested in protecting the land from being sold for future development. Melanie said she has concerns about forestry practices. Corbin said the land department follows Best Management Practices (BMPs) from the Forestry Commission. Melanie said beyond BMPs, she would like to see the lands enhance or provide additional habitat. She said that many times, BMPs only specify avoidance, and she would rather see enhancement for the conservation of bat species. Henry asked if any of the land protection agreements that SCDNR has developed at other projects have an element for enhancement. Dick said there is separate funding to help with enhancement, but the land protection agreements don’t contain any enhancement measures. Henry asked Melanie to bring forward any restrictions she would want on the lands so that SCE&G can consider it. He also asked her to pick out high priority properties that might be good for enhancement. Melanie said she wouldn’t propose any restrictions, but instead is encouraging SCE&G to take voluntary actions to provide protection to bats. She will provide a list of these actions to SCE&G.

Henry asked if the lands that SCDNR has proposed for protection are accessible to the public. Corbin said that the lands are accessed by crossing private property. Bill M. said that SCDNR is proposing that the identified SCE&G lands could be leased to provide public access in anticipation that sometime in the future other necessary lands might be acquired to help with access.

Gerrit said he wants to see a differentiation in what mitigation measures are for aquatic resource impacts versus recreation impacts. American Rivers doesn’t support land protection as mitigation for aquatic resource impacts. Bill M. said that although they are thinking of the land protection as a broad mitigation rather than in kind, they are sympathetic to the idea that mitigation for aquatic impacts should be separate.

Henry said the SCDNR proposed Habitat Enhancement Program (HEP) could be included in the license, including the funding, which could help SCE&G obtain a longer license term. The longer the license, the longer the land protection occurs.

Henry said that SCE&G would need to be a member of the Proposal Review Committee. Bill S. suggested that HEP membership could begin with founding members and include a process to allow in new members, similar to the language that is included in the CRSA.

Gerrit said that Alcoa’s Tapoco Project developed an aquatic resources fund with a fiduciary board that solicits proposals for spending the money. This is similar to the Broad River Mitigation Fund. Gerrit will distribute the Alcoa fund agreement to the group. Bill M. said that the funds for the Keowee-Toxaway and Catawba-Wateree HEPs are held by a non-profit organization similar to the Central Carolina Community Foundation.

Henry said that SCE&G needs to look at the land proposal and determine if they want to include any of the lands in the Project Boundary, or keep the land proposal off-license.

Bill A. will need to discuss the HEP fund with his management. Henry said that the SCDNR’s proposal designates an annual donation of \$183,000 into the HEP fund based on the recreation value for fisheries at Monticello Reservoir. However, Henry said that the recreation value for fisheries in Parr Reservoir should be much lower. Bill M. said that the cost for the Monticello

fishery was developed per acre, and then transferred to Parr. Henry said that he believes these values are high for determining the recreation value at Parr. Henry also noted that the recreation value at the Project may also be less now that the V.C. Summer nuclear expansion project has been abandoned. The population in the area is decreasing, so there are less people utilizing the recreation sites. Henry added that SCE&G has also agreed to a list of enhancements at the recreation sites to mitigate for recreation loss. Henry asked SCDNR to consider reducing the annual donation to the HEP fund down from \$183,000, based on more realistic estimations of the Parr recreational fishery impacts. Melanie said that she is interested in mitigation for all aquatic species and these numbers are based only on the recreational fishery. Later in the meeting, Bill A. asked Bill M. if SCDNR would provide a new value for their proposed HEP fund and Bill M. asked SCE&G to propose a number they could live with.

Subsequent to the meeting, SCDNR provided the following paragraph to clarify their value of the recreational fishery at the Project Reservoirs:

“The recreational fishing value that SCDNR attributed to Parr Reservoir is derived from recreational creel survey data collected from 1987-1999 at Monticello, a timeframe that precedes VC Summer expansion activity by 10 to 20 years. Using the creel survey data, an average annual value of the fishery was calculated, then adjusted to 2017 dollars, and finally converted to an annual value per acre of reservoir. For the proposed HEP contribution, the value per acre was multiplied by Parr Reservoir surface acreage that is frequently fluctuating (2994 acres) because of operations at the Project. Again, the recreational fishing value suggested by SCDNR is based on fishing activity that preceded the effects of VC Summer expansion activity by 10 to 20 years.”

Gerrit said that he thinks it is unrealistic that SCE&G will get a 50 year license term and he doesn't want this settlement agreement to fall apart if the license term is less than 50 years. He suggested putting in different measures for different length terms.

American Rivers Recreation Maps

Bill A. said that, originally, SCE&G was going to develop a simple map showing recreation access areas at the Project. However, American Rivers shared a better example of a recreation map that would encompass more area than solely that within the Parr Project Boundary. SCE&G is willing to provide funding to print 2,500 maps after American Rivers developed the maps. Gerrit said, from their perspective, they would like to include the Broad River and the Enoree River. He said there is a process to developing a map. Recreational access must be identified, including islands that SCE&G has control over and private property owners. Historical content must be developed. Then a contractor would be hired to lay out the map, which would cost a couple thousand dollars for one section (each map would have two sections). Finally, there are printing costs to consider, which would be a few dollars per map. American Rivers would like to have funding that includes the cost to develop the information, hire the contractor, and print the maps. Henry asked if American Rivers could lay out the process and total cost for each of the three phases of this effort. Gerrit said he would be glad to lead the process and encourages other CRSA signatories to be involved as they are interested.

Navigational and Minimum Flow Verification

Several stakeholders are interested in viewing the 1,000 cfs minimum flows in certain areas downstream of the project. Gerrit is also interested in viewing the flows from a navigation standpoint. The group agreed that October might be the best timeframe. Henry will resend his email to stakeholders requesting feedback on this outing.

The meeting was adjourned. Action items are listed below.

ACTION ITEMS:

- SCE&G and Kleinschmidt will develop an Appendix E with draft wording for license articles.
- Kleinschmidt will summarize the meeting notes from the Downstream Flow Fluctuation AMP into a PowerPoint presentation and distribute to NOAA Fisheries and stakeholders.
- Gerrit will provide language to include in the Downstream Flow Fluctuation AMP about the possibility of developing an optimization model.
- Kleinschmidt will revise the West Channel AMP to include information about the use of IFIM data to examine aquatic habitat.
- Stakeholders will add wording at the next CRSA meeting (August 30) to the West Channel AMP about NOAA Fisheries' critical habitat designation for sturgeon in the area.
- Bill A will check with System Control's ability to support the request from SCDNR for flooding and draining the Broad River Waterfowl Area.
- Melanie will provide a list of voluntary actions that she would like SCE&G to take to provide protection to bats on lands to be offered in response to SCDNR's request for conservation protection.
- SCDNR will revisit their original request of \$183,000 annual donation by SCE&G into the HEP fund to determine if that figure is reflective of the recreation fishery impacts in Parr Reservoir.
- Gerrit will distribute information on the Tallasse Fund that was developed with Alcoa as part of their Tapoco Project relicensing.
- Gerrit will lay out a process and total cost for each of the three phases for the development of the recreation maps.
- Henry will resend his email on the verification flow plan to the stakeholders.
- Kleinschmidt will revise Appendix A of the CRSA to match the revised titles of the AMPs and Monitoring Plans.
- Kleinschmidt will revise all AMPs to include new wording from the CRSA on Review Committee membership.