

MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY
Water Quality TWC Meeting

September 10, 2013

Final KDM 10-09-13

ATTENDEES:

Bill Marshall (SCDNR)	Bill Argentieri (SCE&G)
Ron Ahle (SCDNR)	Milton Quattlebaum (SCANA)
Rusty Wenerick (SCDHEC)	Steve Summer (SCANA)
Alison Jakupca (Kleinschmidt)	John Knight (SCE&G)
Henry Mealing (Kleinschmidt)	Byron Hamstead (USFWS)
Kelly Miller (Kleinschmidt)	Tom McCoy (USFWS)
Dan Dieter (Kleinschmidt)	David Eargle (SCDHEC)
Bill Stangler (Congaree Riverkeeper)	Kerry Castle (SCDNR)
Ray Ammarell (SCE&G)	Dick Christie (SCDNR)
Fritz Rohde (NOAA) via conference call	

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

Alison opens the meeting with introductions and then leads the group in a discussion on the Baseline Water Quality Report. Byron asks if there are any monitoring sites further upstream than the SCDHEC B-047 monitoring site, which was included in the report. He explains he would like data from that area to compare against downstream data. Byron believes that current baseline data from this area is needed to use as a control. The next monitoring station is the USGS gage at Carlisle. Henry mentions that we can add more data into the report however we will not be able to find a monitoring site that is not impacted, since Neal Shoals is located above the Parr Fairfield Project. However, a site above the Project would represent conditions in the free-flowing part of the river before it becomes impounded. The group agrees that data from the Carlisle gage will be added to the report.

Byron also asks for more analysis to be completed on the existing data that is exhibited in the baseline report. He agrees to write a list of what he would like to see and submit that to Kelly to include in the report. Kelly will also work with Steve to determine if any more data has been collected by SCE&G. Kerry offers to send turbidity data collected by SCDNR to add in the report. Rusty adds that he would like to see any additional data collected above, within and below the Project regarding metals, since there is a historical Copper reading at a discontinued SCDHEC monitoring site located downstream of the Project. Steve says he will check to see what SCE&G metals data is available and will pass that along to Kelly. Rusty adds that there are also issues with phosphorus and pH at some of the SCDHEC stations at the Project. Rusty refers to the map he shared at the February 28th meeting, which was included as an appendix to the meeting notes. He says that the phosphorus is most likely coming from the watershed however he would like to see the

phosphorus levels documented. Rusty added that SCDHEC is responsible for developing a TMDL to address nutrients in the watershed; however, in so far as the project may be able to adjust operations to mitigate the problem while still achieving the project purpose, SCDHEC would ask SCE&G to consider that. Steve says he will also search for phosphorus data collected at the Project by SCE&G. Rusty and Steve both agree to search for additional information on copper, phosphorus and pH in the upper portion of Lake Monticello and elsewhere. Rusty said that SCDHEC would submit written comments and would help with downloading any additional SCDHEC data. Dick mentions that SCE&G can address nonpoint source concerns in the future through shoreline management, even though this isn't included as part of the 401 water quality certification.

Ron says that the pH and temperature at Lake Monticello raised some red flags. He would like to see more information on the mixing zone permit from SCDHEC to be included in the report. The thermal study that was performed at Lake Monticello will be added as an addendum. Ron says it is important to see what is permitted at the V.C. Summer Nuclear Station to understand what isn't going to change regarding water quality at Lake Monticello.

The group then begins discussion of the Baseline Macro/Mussel Report. David mentions that he would like to see another upstream site, on the flowing part of the river, included in the report. Milton says he will talk with Dan Carnagey to see what other data is available. Byron asks if five samples are enough to be representative of an area. Milton explains that the transects are representative and that they are compared over time, not to each other.

David requested that a separate mussel study be performed in Lake Monticello. He said the specifics of the study can be determined by John Alderman. Shane and Milton are currently talking with Alderman to develop a study plan. David said that the study should examine a few important spots over a day or so to characterize the reservoir.

Milton then gives a presentation on his findings from a study of the substrate in the Fairfield tailrace. He found sand, rock and *Corbicula spp.* at the three spots he examined along three transects. Overall, he found a hard, scoured bottom. Ray shows the group pictures of the tailrace as the plant was being built. The information collected by Milton will be consolidated and included in the Baseline Macro/Mussel Report as an addendum.

The group then discusses the Water Quality in the West Area Study Plan. Ron says he would like to see one more monitoring station added on the tailrace side of dam to use as a control. Henry mentions that there is a USGS gage on that side of the dam that can be used for this purpose. Byron says he would also like to see a control monitoring station located further down Henderson Island on the east bank of the river. The group agrees that a fourth monitor will be located in the east channel near the bridge that crosses the mid-point of the island. Milton says that access should be fairly easy by boat or walking for all four proposed monitoring sites. Rusty mentions that this could be an opportunity to collect more data (such as water quality grab samples for nutrients or metals) and Byron agrees. Ron points out that eight months of monitoring may not be enough to accurately portray the water quality of that area. Henry says that we can monitor for one 8-month season, then evaluate whether further study is needed. Ron agrees and would like for a caveat to be added to the study plan explaining this. The group defines this statement, which is included below.

“This study may be extended based on a review of the results from the initial eight month period as determined by the Water Quality TWC.”

Ron also adds that the proposed data collection interval of 15 minutes can be scaled back to hourly collection intervals. The group also decides to shift the study season one month to extend from April to November.

The group discusses the comments submitted via email by Vivianne Vejdani regarding the need to collect turbidity and conductivity within this study, in addition to dissolved oxygen (DO) and temperature. The group agrees that a YSI meter will be used each month to collect DO, water temperature, and conductivity when data is downloaded from the HOBO meters. In addition, pH will also be collected at that time, but with a separate meter. These discussed changes will be incorporated into the study plan and the final will be sent out to the TWC.

After lunch Bill A. gives a presentation on the sediment situation in Parr Reservoir, which indicated that the reservoir sediment levels are in “equilibrium”. The presentation can be viewed at the Project website at www.parrfairfieldrelicense.com. Ron says that sediment seems to be passing through Parr Hydro. The reservoir does not appear to be “filling in,” as it did at Neal Shoals. The topography maps show remnants of existing islands that have been in the reservoir prior to the original dam being built. Ron mentions that the area at the mouth of Cannon’s Creek is very shallow and can be difficult to navigate. He says that this might be something that should be examined further in the process, through the Recreation TWC. Bill A. shows the group a presentation on the trash rake that is located immediately upstream of Parr Hydro. This depicts how the area immediately in front of the powerhouse is kept clear of debris and sediment. Bill M. says that the upper end of Parr Reservoir might still have sedimentation issues. Bill A. says that there is a sand mining operation located at the upper end of the reservoir, and also points out that Fairfield operations help to keep sediment stirred up and moving through the reservoir.

The group then discusses future meeting dates and agrees to hold the next Water Quality TWC meeting in January 2014 to discuss the updated and finalized Baseline Water Quality Report and Water Quality in the West Area Study Plan. Rusty reminds the group that it was agreed at the first meeting, held in February, that requests for additional water quality data would be deferred until after the final Baseline Water Quality Report was reviewed and discussed. Kelly will send out a Doodle Poll for this and other upcoming meeting dates. Action items stemming from this meeting are listed below.

ACTION ITEMS:

- Steve will find out what other SCE&G water quality data is available and will send this data to Kelly to add in the Water Quality Report.
- Rusty will search for additional copper, phosphorous and pH data for the upper portion of Monticello Reservoir
- Kerry will send the SCDNR turbidity data to Kelly to add in the Water Quality Report.
- Byron will submit a list of the edits and additions he wants for the Water Quality Report.

- Kelly will make additions and edits to the Water Quality Report and resubmit to the TWC for review. These changes will include at least the following: metals downstream (including copper), USGS gauge at Carlisle data, phosphorous, pH, new nuclear SCDHEC mixing zone permit parameters.
- Shane Boring will begin developing a Mussel Study Plan for Monticello Reservoir.
- Kelly will make edits to the Water Quality in West Area Study Plan and resubmit to the TWC for review.
- Milton will talk with Dan Carnagey regarding other available macro data on Broad River upstream of the Parr Project to be included in the macro report.