

MEETING NOTES
Stevens Creek Hydroelectric Project (FERC No. 2535)

Dominion Energy South Carolina, Inc.
Fish Passage Technical Working Committee

August 16, 2023

Final JAG 9/15/23

ATTENDEES:

Caleb Gaston – DESC	Andy Herndon* – NMFS
Ray Ammarell – DESC	Bjorn Lake* – NMFS
Paul Vidonic – Dominion	Fritz Rohde* – NMFS
Taylor Allen – Dominion	Twyla Cheatwood – NMFS
Alison Jakupca – Kleinschmidt	Kevin Mack – NMFS
Henry Mealing – Kleinschmidt	Keith Whalen – USFS
Jason Moak* – Kleinschmidt	Eric Bauer* – USFWS
Jenn Güt – Kleinschmidt	Melanie Olds – USFWS
Will Pruitt – Kleinschmidt	Clint Peacock* – GADNR
Bill Post – SCDNR	Rusty Wenerick* – SCDHEC
Elizabeth Miller – SCDNR	Paula Marcinek – TNC

* attended virtually

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.

The purpose of the meeting was to continue to develop the Fish Passage Technical Working Committee (FPTWC) Charter and work plan for fish passage implementation during the new license term of the Stevens Creek Hydroelectric Project (Stevens Creek Project or Project).

Following a welcome and introduction, Paul, Dominion, provided the committee with a safety moment regarding cautious driving. Alison, Kleinschmidt, stated the purpose of the meeting, with the particular goal of filling out Section 8.2, *Implementation Methodology – Study Planning*. Alison requested a basin status update from members of the FPTWC regarding the Robust Redhorse (RR) Species Status Assessment (SSA), the Augusta Canal Hydropower Project (Augusta Project) fishway prescription, and the New Savannah Bluff Lock and Dam (NSBLD) legal proceedings. Melanie, USFWS, stated that the RR SSA was ongoing but that she could not provide any updates at the time. Andy, NMFS, provided an update on the Augusta Project fishway prescription. NMFS had provided FERC and the City

of Augusta with a courtesy copy of the draft Biological Opinion (BiOp). The City provided comments back that have raised some questions. There is a follow-up meeting scheduled for late September to discuss the Augusta Project BiOp. It is anticipated that FERC will public notice the meeting but may or may not be taking comments. Regarding the NSBLD, Andy informed the committee that a federal appeals court hearing in January 2023 ruled in favor of USACE sending the suit back to the U.S. District Court.

Twyla, NMFS, requested a status update on the Stevens Creek Project 2023 Water Quality Study Plan. Jenn, Kleinschmidt, stated that the plan would be sent to stakeholders by August 18, 2023. Jason, Kleinschmidt, provided a progress report on the study. Provisional data has indicated so far that dissolved oxygen (DO) in the Stevens Creek arm of the reservoir is better in 2023 than it was during the 2021 study; DO levels have not been recorded below 4 milligrams per liter during longitudinal profiles performed during the 2023 study. Some off-channel habitats appear to be contributing higher DO water whereas others are contributing low DO water to the creek. Alison noted that the study would be complete after the Final License Application has been submitted. DESC will host a meeting to review the results, and the final report will be submitted to FERC as supplemental information.

Alison reviewed the FPTWC Charter introduction. As is currently drafted, the introduction section includes information on current legal proceedings (NSBLD and Augusta Project). The question was raised as to whether to leave the document with the current information or revise it to be more general. Caleb, DESC, said that provided the document is dated, there should be no issues. The introduction could remain as is with a statement that the presented information is representative of the date on the document.

The committee discussed example material from which to base the FPTWC Charter, including Proposed License Article 1 in the Roanoke Rapids and Gaston Power Stations (Roanoke-Gaston Project) Settlement Agreement, which led to the creation of the DFRTAC. However, the group had trouble at that time finding the document¹ and proceeding forward in the meeting.

Alison asked NMFS and USFWS if they had intentions of including the Charter into either 10(j) recommendations or Section 18 prescriptions. Twyla said that Section 18 only allows NMFS to include a fishway prescription. There was concern with using 10(j) as FERC has leeway not to include 10(j) provisions. NMFS noted that ideally members would sign the Charter so that there is an agreement in place. Alison noted that in that case, settlement agreement language may need to be added to the Charter. Henry, Kleinschmidt, expressed that during the settlement agreement process for the Parr Hydroelectric Project (Parr

¹ Taylor, Dominion, sent the referenced information to members of the FPTWC during the meeting.

Project), the longest part was getting signatory legal counsel to agree to the language in the document. He noted that the sooner that counsel is consulted, the better.

Twyla asked DESC why NMFS was not consulted on the recent revised Operations Plan filed with FERC. Ray, DESC, located the current license requiring the development of the Operations Plan (Article 403); it required that USFWS, GADNR, SCDNR, and USACE be included in consultation of the plan.

The committee circled back to the DFRTAC as guidance to the Charter. Fritz, NMFS, said that the main component of the fishway prescription for the Roanoke-Gaston Project, which formed the DFRTAC, was the dispute resolution. This was due to some initial disagreements regarding the bypass reach.

The committee worked on revisions to the Charter mission statement and general objectives. "Safe, timely, and effective" fish passage was added to the mission statement based on feedback. The current mission statement is provided in full in the attached Charter (Attachment A). For the general objectives, Kevin, NMFS, commented that a good rule to follow is to have SMART (specific, measurable, attainable, reasonable, timely) objectives. Twyla noted that the general objectives as they were currently written were aimed toward the beginning studies but that they should also include implementation of fish passage and an adaptive management process. Henry discussed that the trigger for fish passage at the Parr Project is a specific number of fish and he asked NMFS if they had similar goals or triggers for the Stevens Creek Project. Twyla stated that the Project fishway prescription would not be drafted like the one for the Parr Project. Passage for American Eel would be prescribed immediately, and other passage would be triggered with passage at NSBLD. The committee continued to work on drafting the objectives, which are provided in the attached Charter.

The committee had further discussion on the Roanoke-Gaston Project fishway document. Fritz noted that the referenced project is the first dam for passage, unlike the Stevens Creek Project. Therefore, it was understood that passage would be implemented at the Roanoke-Gaston Project; the adaptive management component was added later. Twyla commented that because the Stevens Creek Project is not the most downstream dam, the process is starting adaptively (dependent on proceedings for NSBLD and the Augusta Project).

Twyla read some of the goals from the Diadromous Fish Restoration Plan for the Middle Savannah River, pointing out that the document lists the objective of restoring and/or maintaining habitat for diadromous fishes. Habitat language was added to the FPTWC Charter objectives.

The committee moved to Section 8.2 in the Charter. Henry asked if the group wanted specifics in the document regarding the studies to be conducted, such as whether it would be density, siting, etc. Based on discussions from the May 2023 FPTWC meeting, the Charter was split on discussing American Eel from the other species because passage of these other species is tied to downstream actions. NMFS stated that they believe eel are directly below the Project dam and studies could be conducted immediately upon license issuance. The committee discussed how downstream fish passage would impact passage at the Project. NMFS believes downstream passage would affect a density study as the volume of upstream passage would increase; however, the eel would likely pass at the same location at the Project during siting studies pre and post downstream passage. Following some back and forth between DESC and NMFS, it was determined that a siting study should be the first study. Bill, SCDNR, expressed that the Charter should stand on its own and separate study plans should be developed as a group at a later date, as downstream actions will change in the future. Rather than making implementation of the Charter time dependent, it could be more general. The Charter was revised to reflect a Year 0, Year 1, etc.

It was asked if a future fish passage structure would serve eels in addition to other fishes. Kevin said that a nature-like fishway would but that, typically, eels and Alosines (shad) would use different passages from one another. Taylor, Dominion, asked if for shad, a transfer and dump from below the Augusta Project dam to above the Project dam would be feasible. NMFS noted that this was not the ideal solution.

Kevin noted that previous Project relicensing meetings had discussed conducting an eel population survey both above and below the dam. If eel numbers are higher below the dam than above it, then there may be an obstruction to passage. If there are equal numbers both above and below the dam, then perhaps current passage is effective enough. Melanie stated that if eels are in equal numbers, then the study results would lend itself to the Project not needing eel passage. Paula, TNC, said that she believes previous research indicates that eels are more abundant below the Project dam; it would be an extensive survey to find out for sure. Melanie articulated that the USFWS would like to assume that the Stevens Creek Project dam is causing some sort of impediment to fish passage and to develop a study plan that implements passage. Henry noted that eel could be stacking up at the Augusta Project dam and asked NMFS if the Augusta Project's fishway prescription will require a siting study below their dam. NMFS did not require eel studies for the Augusta Project as it is the assumption that eels would use the proposed fishway and existing, historic fishway to get over the dam. Paul stated that if we knew the population above and below the Project dam, it could mean that only a slight modification to the Project dam structure would be needed for eel passage. Bjorn, NMFS, expressed that he was confident that eels can crawl over the Augusta Project dam and are likely getting over the Stevens Creek Project dam as well. Bjorn suggested conducting a siting study first

and then the group could determine if passage is meeting species goals. Bjorn referenced guidance developed by Alex Haro and Steve Gephard².

The group moved to Section 8.3, *Dispute Resolution*. After working through some language, the committee concluded that the language from the Roanoke-Gaston Project fishway prescription was too elaborate for the purposes of the FPTWC Charter. As stated previously, there were some contentious issues with the bypass of the Roanoke-Gaston Project leading to the involved dispute resolution language.

The committee discussed implementation of the Charter. As stated previously, the Charter could not be included in Section 18 but could be included in 10(j) recommendations or 10(a) relating to the comprehensive plan for the basin. Bjorn pointed out the language in the Charter about the Federal Advisory Committee Act and his hesitancy to include it as it would require each meeting to be public noticed and put on the Federal Register. The language was deleted from the Charter.

It was mentioned that the Roanoke-Gaston Settlement Agreement included language for specific license articles to be included in that project license. Alison stated the same could be done for the Charter if the FPTWC wanted to go in that direction.

Fritz brought up the Santee Cooper Hydroelectric Project (Santee Cooper Project) Resource Management Team Rules of Operation (RMT Rules). In addition to the section on dispute resolution, other parts of the RMT Rules applicable to the Charter according to Elizabeth are the designation of a representative and alternate for each member and the requirement for a quorum for voting purposes. The verbiage of "rules of operation" compared to "charter" was discussed. Melanie noted that at the time the RMT Rules were drafted, it was USFWS guidance that "rules of operation" held less legal significance than "charter" requiring less detailed agency review. Melanie will investigate current USFWS guidance on the different terms. The "reserve authority" section of the RMT Rules was also mentioned. There was discussion if the RMT Rules could be shared with the FPTWC. Access was granted by Santee Cooper Project representatives and the RMT Rules was shared by SCDNR with the FPTWC. Kleinschmidt will add the dispute resolution, designation of member and alternate, and reserve authority language to the Charter.

The frequency of the meetings was discussed next by the committee. During the May 2023 meeting, the FPTWC considered holding a meeting quarterly until license issuance and then quarterly for eel and annually for shad. Melanie inquired about other species. The Charter language was revised to reflect more general language that the FPTWC would meet regularly following license issuance and that additional meetings could be requested by members of the committee.

² Twyla, NMFS, shared the guidance with Dominion.

The committee circled back to the Charter implementation methodology section. The group reviewed Appendix B of the Roanoke-Gaston Project Technical Settlement Agreement. Paula pointed out language in the document that lists all diadromous fishes as target species but that initial management objectives are for eel and shad. Alison asked Melanie about the inclusion of the RR in the Charter. Melanie answered that the USFWS is interested in preserving the habitat downstream but unsure about passing them upstream. Language in the implementation methods was revised to reflect "target species" rather than specific species to ensure RR could be considered at a later date. NMFS confirmed that while siting study length differs based on the project, many studies are conducted over a five-year period. The Charter was drafted for the siting study to be conducted from Year 1 to Year 5 (Year 0 was to form the FPTWC and review newly available information). Fish passage would be implemented and effectiveness studies conducted from Year 6-10 and Year 10-40 was for an adaptive management approach. Twyla noted that typically effectiveness studies are a set period rather than grouped but Keith, USFS, provided an explanation that the grouping allowed for more flexibility.

Since implementation within the Charter was not separated by species, the group discussed how shad would be addressed during Year 0 since upstream passage at downstream projects would not yet be implemented. It was determined that separate implementation could be done for shad and Year 0 would be when passage is implemented downstream. Along this topic, further discussion took place about the generalization of the Charter based on Bill's previous comment. Rather than call out the species by name (eel or shad), the language in the Charter implementation methodology was changed to "target species" and steps replaced years. Twyla commented that FERC will likely require a timeline, and it was determined that years could be identified in the study plans.

Alison asked the FPTWC their opinions of the literature review section. The group noted that the Project Aquatic Habitat Whitepaper contains most of the information and could serve as the location to compile and maintain it. The literature review section will be removed from the Charter and Kleinschmidt will review the Aquatic Habitat Whitepaper for what has already been included and what will need to be added.

Paula identified that many charters include specifics regarding the meeting schedule to establish that they are conducted at times to appropriately inform studies. This is mainly in reference to a "passage season". Language was added to the Charter to ensure appropriately timed meetings. Caleb suggested that language be added that states progress reports can be issued in lieu of meetings if approved by the FPTWC; the committee agreed and language was added. It was noted that the RMT Rules were developed post license; therefore, language should likely be added to the FPTWC Charter stating that members are not limited to information in the Charter (i.e., documents related

to fish passage at the Augusta Project and/or NSBLD issued after the Charter's approval may inform fish passage at the Project).

The committee had further discussion on incorporation of the Charter into the Stevens Creek Project license. Twyla believed that the Charter in its current state could not be something signed by NMFS as its primary focus was the formation of a group. Alison asked if the FPTWC would like to present license article language to FERC regarding the formation of the committee. The proposed license article could include language that states the article is intended to be incorporated into the Project license without modification and if FERC were to modify the article, the FPTWC would need to meet to discuss modifications (similar to the Saluda Hydroelectric Project Comprehensive Relicensing Settlement Agreement). Melanie would prefer the Charter not be a settlement agreement (something that needs signatures) as it would require another level of review and work. Henry suggested that the FPTWC could be included in the Final License Application under the Proposed Action, which would not require signatures. Twyla explained that as the Charter exists now it is not enforceable by FERC, and she thinks it will be kicked back as an off-license agreement. Henry agreed and expressed that the inclusion of the FPTWC in the Proposed Action along with agency 10(j) recommendations would make it difficult for FERC to not approve the Charter. Keith may be able to include it in USFS 4(e) conditions to further solidify the groups inclusion in the Project license. Keith will discuss the possibility internally with USFS staff. Language could also be added to the proposed license article that if it is not incorporated into the Project license, that Dominion agrees to make it an off-license agreement.

The committee discussed the development of an Adaptive Management Plan (AMP) regarding fish passage implementation. If an AMP is developed, it could be used as a Protection, Mitigation, and Enhancement measure. The Parr Project West Channel AMP was recommended as a potential example of the general structure of an appropriate AMP. The question was raised as to whether development of the AMP should wait until the BiOp for the Project is issued. Alison said AMP language could be added to the Charter with a footnote that it may be further informed by the BiOp. Alison asked the committee if they thought an AMP would be more enforceable by FERC if it included a requirement to submit annual reports to them (see Wallace Dam Hydroelectric Project license). Henry stated that in either case, the AMP could be appended to the Charter as a lot of work had already gone into planning for passage implementation via the Charter. The committee's final decision was to develop the skeleton of an AMP to be included with the FPTWC Charter. It could have rules of operation and include the report requirement. If FERC were to not include it in the Project license, Dominion would work through the AMP via an off-license agreement.

Elizabeth asked if Dominion intended to develop AMPs for other Project resources. Alison answered that currently, only an AMP for fish passage was planned. However, the AMP could incorporate other related resources, such as habitat and water quality.

Melanie asked Dominion if there are certain measures that could be incorporated into a fishway prescription that are concerning and that Dominion considers "hard 'no's'". She indicated that she thought the present meeting may have gone into further discussions about attraction flows, structures, etc. She requested Dominion consider its options when developing the AMP and decide what they are willing and not willing to do. Ray answered that his biggest concern is that the Operations Plan is tied to USACE releases and that alterations to flow and/or reservoir levels may be sticking points, particularly during the low-flow season, due to the Project's re-regulation function. Caleb also noted that Obermeyer gates may not be a feasible option due to economic concerns with implementation costs. Elizabeth expressed that CHEOPS³ modeling may be potentially helpful in visualizing flow. Ray indicated that he did not envision flows for eels (which are anticipated to be insignificant) during the high-flow season initially being an issue. Timing of passage implementation would be the hardest "no" if it was to occur before passage at downstream facilities was proven effective. In addition, Dominion is not interested in rehabilitating the lock structure. Previous discussions indicated that the agencies agree rehabilitating the lock is not a preferred option.

Melanie inquired why Robust Redhorse (RR) habitat was not assessed during relicensing. Alison answered that it was intended for the Aquatic Habitat Whitepaper to inform the species' available habitat within the Project area. Will, Kleinschmidt, explained that a reconnaissance survey of the Project substrates was conducted, and substrates were assessed during mussel surveys. The only available spawning habitat within the Stevens Creek Project reservoir is just below the J. Strom Thurmond Dam. The sediment in the Stevens Creek arm is very sandy and not conducive to RR spawning. Melanie indicated that data is showing that shad might be migrating earlier, overlapping with RR movement; they begin migrating in March and spawn in May. These changes in shad movement may result in a longer duration of passage operation. Melanie noted that the Augusta Shoals are a primary spawning location for RR and the Savannah River population is the most stable and does not currently need human intervention; it is USFWS's desire to keep it that way.

Henry asked NMFS if they intended to include prescribe flows for sturgeon for the Project. Andy commented that the draft BiOp for the Augusta Project includes a flow requirement, but it is unknown how that may play into Stevens Creek Project releases. NMFS conducted instream flow analysis in the vicinity and determined that the City of Augusta should be able to provide adequate flows to the canal and the shoals approximately 99 percent of the time.

³ CHEOPS modeling is proprietary to HDR, Inc. Kleinschmidt's HEC-RAS modeling is comparable.

Henry asked if the agencies would be willing to share some bullet points on what they are hoping to see with fishway passage at the Project so Dominion could prepare. Melanie likes this approach as USFWS would prefer to have the FPTWC essentially draft the prescription together on the front end. Twyla indicated she would need to consult internally before agreeing to share information upfront.

The committee agreed to continue to meet quarterly. The next meeting was scheduled for Wednesday, November 8, 2023 in Columbia, South Carolina.