

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

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

August 28, 2025

Draft JAG 9/1/25

MEETING ATTENDEES¹:

Ray Ammarell – Dominion Energy	Paula Marcinek
Will Barnes – Dominion Energy	Elizabeth Miller – SCDNR
Jason Bettinger – SCDNR	Melanie Olds – USFWS
Amy Bresnahan – Dominion Energy	Bill Post – SCDNR
Caleb Gaston – Dominion Energy	Will Pruitt – Kleinschmidt
Aaron Gray – GAWRD	Andrew Rollins – Dominion Energy
Jenn Güt – Kleinschmidt	Paul Vidonic – Dominion Energy
Andy Herndon – NMFS	Ellen Waldrop – SCDNR
Fritz Hoogakker – Dominion Energy	Keith Whalen – USFS
Alison Jakupca – Kleinschmidt	Pace Wilber – NMFS
Bjorn Lake – NMFS	

Not in Attendance: Not Applicable

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.

MEETING PURPOSE: The purpose of the meeting was to review future planning for fisheries surveys and prescriptions (Rx) for the Stevens Creek Hydroelectric Project (Stevens Creek Project or Project).

Alison Jakupca, Kleinschmidt, began the meeting with a welcome and safety moment for Fish Passage Technical Working Committee (FPTWC) members (also referred to herein as group or committee).

¹ Abbreviations/Acronyms: GAWRD = Georgia Department of Natural Resources, Wildlife Resources Division; Kleinschmidt = Kleinschmidt Associates; NMFS = National Oceanic and Atmospheric Administration, National Marine Fisheries Service; SCDNR = South Carolina Department of Natural Resources; USFWS = United States Fish and Wildlife Service; USFS = United States Forest Service

Regional Fish Passage Updates

Andy Herndon, NMFS, provided an update on fish passage at NSBLD², which is the most downstream obstruction to fish passage in the Savannah River. As discussed during the June 2025 FPTWC meeting, new language in the WRDA³ 2024 has instructed USACE⁴ to “fully repair” the “lock and dam structure” which will allow for construction of a fishway in a bypass channel on the SC⁵-side of the dam. According to Andy, USACE is planning a two-pronged approach. They have contracted with a third party to conduct a full inspection of the dam. Concurrently, USACE has asked NMFS to pull together a team to develop different fish passage design alternatives that would meet the intent of the revised WRDA 2024 language while still meeting the requirements of NMFS’s BiOp⁶. There are no updates on the overall timeline of fish passage construction at NSBLD currently.

American Eel Studies

Caleb Gaston, Dominion Energy (DE), presented additional analyses from the Spring 2025 Eel Sampling Study Report. In summary, the eel ramp and GA⁷ shoreline had similar length distributions of American eels. The first shoal and section of the dam in front of the 4-foot flashboards showed a lack of smaller eels. There was an overlap of smaller eels collected by both electrofishing and the ramp; however, there appeared to be some size selectivity associated with the eel ramp as large eels were collected via electrofishing that did not show up in the ramp. Regarding CPUE⁸ of eels, Caleb noted that there have only been four events thus far, and it is, therefore, difficult to draw conclusions from minimal data. However, based on the data collected in 2025, the GA shoreline, the navigation lock, and the toe of the dam in front of the 5-foot flashboards have the highest CPUE compared to the other sites.

Caleb presented a figure that illustrated the cumulative number of eels with various environmental factors. Bill Post, SCDNR, commented that what he can interpret from the figure is that there is a pulse of eel movement following a high flow event once temperatures reach 15-20 °C, which is consistent with what SCDNR has seen via eel traps.

The results Caleb presented will be in the Spring 2025 Eel Sampling Study Report that is in development. The graphs will include p-values where appropriate.

² NSBLD = New Savannah Bluff Lock and Dam

³ WRDA = Water Resources Development Act

⁴ USACE = United States Army Corps of Engineers

⁵ SC = South Carolina

⁶ BiOp = Biological Opinion

⁷ GA = Georgia

⁸ CPUE = Catch Per Unit Effort

Caleb discussed some modifications proposed for the Spring 2026 Eel Sampling Study, including extending ramp and electrofishing operations into June and removing eel pot sampling. DE additionally proposes to add six electrofishing transects in the Project reservoir: two in GA tributaries; two in Stevens Creek; and two in the main reservoir – one likely within the J. Strom Thurmond (JST) dam tailrace. Caleb proposes to discontinue electrofishing along the ledge of the vacant bay (only one eel has been collected here) and add a transect around the debris island that has formed at the toe of the Project dam between the 4-foot and 5-foot flashboards.

Paula Marcinek asked SCDNR where eels were encountered during their efforts sampling in the Stevens Creek Project reservoir. Jason Bettinger, SCDNR, responded that a few eels were collected at the boat ramp for the Project powerhouse and between the two creeks above (unnamed creek/cove and Jones Creek). Eels were also collected in the JST tailrace and near Kiokee Creek. Jason shared a figure of SCDNR's sampling site locations. The transect locations in the reservoir will be further defined.

There was general consensus among the FPTWC with the six transects in the reservoir and switching transect locations below the dam from the vacant bay to debris island. Removing eel pot sampling was also generally agreed upon.

DE is proposing to begin surveying for eels in the ramp once per week and adjust to twice per week once eels are collected. DE can adjust as needed based on temperatures and/or ramp collection numbers. Temperature probes will remain in the Project tailrace and in the ramp live well.

Keith Whalen, USFS, noted that in 2025 eels were collected via electrofishing and placed in the ramp live well for scent; Keith asked if there were plans to do something similar in 2026. Caleb replied that no eels were collected using this method in 2025, but DE is open to continuing the methodology if the committee feels that it is beneficial. Bill responded that through his experience and literature he has come across that using scent as an attraction is advantageous and suggested persisting with the effort, to which Caleb agreed.

The group discussed the maximum length of eels for coded wire tagging below the Project dam. It was confirmed among the FPTWC that 400 millimeters would be the cut-off.

Caleb will revise and distribute the Spring 2026 Eel Study Plan for committee review and include both a track change and clean version.

Paula asked for the reasoning behind tagging eels with coded wire and not PIT⁹ tags. She noted that thinking long term, GAWRD carries PIT tag detectors in their boat for sampling

⁹ PIT = Passive Integrated Transponder

and can scan eels collected for a tag. GAWRD no longer carries coded wire detectors because they tend to be finicky. Paul Vidonic, DE, recalled that the committee selected coded wire tags because of the small size of the eels collected in the Project area. Jason asked Caleb where on the body the eels are tagged, to which Caleb responded just behind the dorsal fin. Caleb requested that SCDNR and/or GAWRD keep any tagged eel that they may collect within the Project reservoir. Alison asked Caleb what the time difference may be for implanting a PIT tag compared to a coded wire tag as handling time was a concern during the 2025 sampling effort. Bjorn Lake, NMFS, commented in the meeting chat that he believes six inches is the minimum size for PIT tagging an eel; individuals smaller than those are collected at the Project. DE will continue tagging eels with coded wire tags.

Draft Preliminary Fishway Prescription(s)

Neither NMFS nor USFWS had any updates on the draft preliminary Rx(s) for the Project.

Turbine Replacement – Unit #4

Alison introduced the planned turbine runner replacement of unit #4¹⁰ at the Stevens Creek Project. While turbine runner replacement is not necessarily intertwined with the FPTWC, DE wanted to take the opportunity to proactively consult with agencies on the matter, which FERC¹¹ procedure favors. On July 25, 2025, DE filed a letter with FERC notifying them that DE intends to perform maintenance on a unit at the Project. Ray Ammarell, DE, further explained the reason for unit #4 maintenance. In 2021, a mechanical failure caused significant damage to the unit. As such, a new 14-blade runner is currently being manufactured to replace the original 16-blade runner. Despite the change in blade count, the runner replacement is considered “in-kind” as it is engineered to operate under the same hydraulic and mechanical parameters as the existing unit. All principal dimensions of the new turbine runner match those of the original. The replacement will enable DE to fully restore the Project’s capacity for re-regulation of JST flows. No impact is expected to reservoir levels or the operation of the other units during replacement. DE expects to install the new runner along with new wicket gates and other ancillary equipment this fall.

Alison discussed that Kleinschmidt, at DE’s request, re-ran the Stryke model to estimate entrainment of blueback herring with the new runner since there was a reduction in the number of blades. In 2022 when the Stryke model was initially run, the survival rate of blueback herring was approximately 95.2 percent compared to 96.7 percent in the original 1990s assessment. The updated Stryke model indicates that the survival rate of blueback herring with the 14-blade unit is approximately 98.0 percent. Ultimately, there is a nominal difference in entrainment between the 14-blade and 16-blade unit.

¹⁰ Francis turbine

¹¹ FERC = Federal Energy Regulatory Commission

Alison reminded the FPTWC that analysis of entrainment of American eels at the Project was through a literature search. Because eels are believed to ball up when passing through a turbine, the Stryke model was not suitable. Eels have an estimated survival rate of approximately 92.7 percent compared to a similar project with 16-blade units. With the blade reduction, eel entrainment through unit #4 is now anticipated to be somewhere between 93.5 and 97.9 percent survivability based upon estimates cited in literature. DE will also be consulting with the GA SHPO¹² about the historic aspects of the Project and proposed maintenance in line with the HPMP¹³.

Amy Bresnahan, DE, asked for agencies to provide their agreement with the maintenance plan of unit #4 and/or any comments. Confirmation that the plan was acceptable was received from USFS during the meeting. Subsequent to the meeting confirmation of the planned maintenance was received from other consulting agencies.

Elizabeth Miller, SCDNR, inquired if FERC is expected to conduct an EA¹⁴ on the turbine runner replacement. Alison responded that it is not anticipated that an EA will be issued as the "in-kind" replacement or the runner is considered a categorical exclusion (CE). An EA will be issued for the Parr Project¹⁵ because the request to extend the turbine venting period is beyond three weeks, which is considered a license variance. Because there are no proposed changes to operations for the Stevens Creek Project, it is believed that the unit maintenance falls under a CE. It was noted, however, that FERC guidance could change and an EA could be required.

Elizabeth commented that the Saluda Project's¹⁶ new turbine runner has vents within the blades to increase dissolved oxygen in the water. The group discussed that aeration occurs through the Project air breaker valves and venting is "natural". Amy noted that compared to the Saluda and Parr projects, the operations at the Stevens Creek Project include running all available units at a lower gate setting to avoid vegetation issues in any particular unit, and therefore, aeration in the Stevens Creek Project tailrace is better compared to the Saluda and Parr projects. Ray added that the Saluda Project head is 180 feet compared to only 35 feet of head at the Stevens Creek Project, and the units are accordingly designed for the different operating conditions.

Alison commented that DE is requesting agency comments on the turbine unit replacement as soon as possible as the topic is currently under FERC review.

¹² SHPO = State Historic Preservation Office

¹³ HPMP = Historic Properties Management Plan

¹⁴ EA = Environmental Assessment

¹⁵ Parr Hydroelectric Project, FERC No. 1894

¹⁶ Saluda Hydroelectric Project, FERC No. 516

Elizabeth asked if there would be an addendum to the Turbine Survival Study Technical Report filed with the Project FLA.¹⁷ Alison responded that DE did not believe an addendum was necessary since the Stryke model did not show any significant differences in entrainment.

The PowerPoint slide regarding the unit maintenance will be distributed for agency comment. DE is available to discuss any questions that may arise.

The next in-person meeting is scheduled for October 29, 2025, starting at 10:30 am in North Charleston, SC.

The meeting was adjourned.

ACTION ITEMS:

- DE to provide the Spring 2025 Eel Sampling Study Report prior to the next FPTWC meeting

¹⁷ FLA = Final License Application; filed with FERC October 27, 2023