

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

Joint Meeting

February 25, 2021

Final KMK 4-14-2021

ATTENDEES:

Amy Bresnahan (DESC)
Caleb Gaston (DESC)
Randy Mahan (DESC)
Paul Vidonic (Dominion Energy)
Taylor Allen (Dominion Energy)
Jason Moak (Kleinschmidt)
Bret Hoffman (Kleinschmidt)
Kevin Nebiolo (Kleinschmidt)
Stan Simpson (USACE)
Don Imm (USFWS)
Eric Bauer (USFWS)
Keith Whalen (USFS)
Paula Marcinek (GDNR - WRD)
Steve Schleiger (GDNR- WRD)
Bill Post (SCDNR)
Ellen Waldrop (SCDNR)
Mark Scott (SCDNR)
Bruce Azevedo (SUOWPC)
Tom Proctor (Landowner)

Ray Ammarell (DESC)
Billy Chastain (DESC)
Matt Long (DESC)
Pete Sturke (Dominion Energy)
Alison Jakupca (Kleinschmidt)
Kelly Kirven (Kleinschmidt)
Jordan Johnson (Kleinschmidt)
Henry Mealing (Kleinschmidt)
Kathryn Feingold (USACE)
Melanie Olds (USFWS)
Twyla Cheatwood (NOAA)
Derrick Miller (USFS)
Jay Payne (GDNR - WRD)
Rusty Wenerick (SCDHEC)
Elizabeth Miller (SCDNR)
Jason Bettinger (SCDNR)
Tonya Bonitatibus (SRK)
Ashley Reid (SUOWPC)

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 review and discuss the 2021 study schedule, including any accompanying comments on the PAD/Study Requests and associated study plan revisions; review Project operations; and review the remaining relicensing schedule.

Upcoming 2021 Study Schedule and Requested Updates/Revisions

The water quality monitors were installed at the end of January/beginning of February due to high flows. The monitors will collect data for a full year and will be removed end of January/beginning of February 2022.

The recreation study will continue as planned in 2021, despite the ongoing pandemic. Recreation clerks will wear masks and practice social distancing. The recreation user forms were updated to account for GADNR comments received previously. Derrick indicated that the USFS is fine with data collection at Chota Drive but reiterated the USFS current stance that they do not support recreation improvements at the site.

The mussel study plan was modified to specify the use of a secchi disk to collect turbidity information during field work. Alison added that a malacologist reviewing the study plan noted that the study plan and SCDNR SOP indicated different survey lengths (100m vs. 400m). Elizabeth M. said that she would check with Morgan Kern (SCDNR) on the difference and let the group know the appropriate survey length. This study will be conducted in late summer (August/September) 2021.

Project Survival Study Discussion

The Project Survival Study was requested following PAD distribution for the purpose of informing Section 18 fish passage prescriptions. Alison noted that following the comments, Kleinschmidt ran the blade strike model to guide discussions for today's meeting. The Kleinschmidt model is very similar to the one used by USFWS. The software (Stryke) is a Monte Carlo model. Kevin provided an overview of the results. The model ran 300 fish per simulation for 30 simulations, based on known information of Stevens Creek Dam. To be as conservative as possible, 100% of fish were routed through the units, although it is likely that some fish will pass via spill over the spillway. Jordan said that the model used blueback herring as the target species and length was assumed to be 10-12 inches, which is longer than would be expected for the landlocked population of herring passing downstream from Thurmond. The model was also run using American eel. Results showed survival rates of 84% and 79% for blueback herring and American eel, respectively. Don asked if the model has the capability to look at the benefits of existing avoidance and minimization measures. Kevin said yes, but we would need more data to input into the model.

Alison said that the existing RMC entrainment study from the mid-1990s showed that herring survival rates were around 94%. The blade strike model runs included very conservative estimates, so it can be assumed the range of survival is likely between 84 and 94 percent.

Bill Post noted that more life stages of eels could be included in the model even though there is not a lot of evidence for larger eels reaching that far up the system.

The group discussed linear regression modeling for American eels. Kevin noted that as a statistician, he has noticed several issues with applying linear regression. He recommended using a beta regression model, which has a response variable. Kleinschmidt would also need additional data to run this type of model.

The group agreed that this is a good discussion to continue during the next Fish Passage TWC meeting. Kleinschmidt will send the model results out to stakeholders for review. Twyla will send this information to the NMFS fish passage engineer for comment. Kleinschmidt will also add silver eels into the blade strike model and send this information out to stakeholders.

Upstream and Downstream Fish Passage Feasibility Study

An Upstream and Downstream Fish Passage Feasibility study was requested following PAD distribution with the purpose of informing Section 18 fish passage prescriptions. This study will be conducted after the Project Survival Study is completed. Alison said that the Fish Passage TWC is planning to go to the Project in 2021 to look at the lock and dam and discuss various alternatives for passage of alosines and American eel. This information may be included in the Aquatic Habitat

Whitepaper. This study request will continue to be discussed as more information on passage at the downstream Augusta Project becomes available.

Later during the meeting, Tonya asked if Robust Redhorse should also be considered during the fish passage feasibility study. Paula said that Robust Redhorse have not been seen above the downstream lock and dam in many years, although targeted surveys have not been completed in years. Melanie said that the USFWS has considered including them, however, passage above Stevens Creek does not open up much additional habitat for the species. She said that passage considerations based solely on this species might not be warranted since it would not open a significant amount of additional habitat. However, the USFWS always takes this species into consideration. Don added that he doesn't believe the Robust Redhorse's natural habitat and preference is in a lake. Alison said that one of the goals of the aquatic habitat whitepaper is to identify the habitat available above Stevens Creek Dam as it compares to the needs of certain species. The group agrees to circle back to this issue later when fish passage downstream is complete.

Bartram's Bass Discussion

SCDNR requested a Bartram's Bass study at the Project. SCDNR has conducted studies on this species to better understand the species and its specific threats. One known threat is hybridization with non-native spotted bass. SCDNR wants to know if hybridization is happening in the vicinity of the Project. The group discussed this study's project nexus. SCDNR said that they are interested in how Project operations may be affecting this species.

Alison said that during the mussel surveys, tidbit samplers will be installed to determine the extent of the project effects on Stevens Creek. This will also inform project effects in the area where Bartram's Bass is expected to occur. Alison also said that SCDNR can consider requesting funds from the Stevens Creek Habitat Enhancement Fund, as this study may fit within the requirements of that fund. This study would be conducted in 2022.

Keith added that additional fish access to the Project could cause the issue of hybridization to become worse. Melanie said that this species is not listed as an At-Risk Species (ARS) yet as this species is just starting to get on the USFWS' radar.

Land Ownership Map, Recreation Access in Georgia, Aquatic Vegetation Control

Alison said that DESC will plan a meeting to talk about additional access to the Project, including a downstream fishing pier and/or canoe access on the Georgia side of the river. Alison also said that DESC will be developing a land ownership map during relicensing and will distribute that to stakeholders when it's complete.

Don noted that aquatic vegetation (specifically Hydrilla) has been indirectly linked to coot and bald eagle brain lesion, however aquatic vegetation should not be eradicated as it is good for juvenile fish. Alison asked what control methods are safe with no effects to water quality. Tonya said that spraying was conducted several times at Augusta and harvesting was conducted as well. The spraying wasn't effective due to water movement. Henry said that the USACE has been successful

at minimizing Hydrilla on Lake Thurmond, although he's not sure of their methods. The group will continue to discuss this issue.

Project Operations

Alison said that there seemed to be some confusion regarding operations at Stevens Creek and their function to re-regulate flows from the upstream Thurmond Dam. Stevens Creek Reservoir fills in approximately 4 hours when both projects are running at full capacity. There is agency concern over reservoir fluctuation and fish spawning, however, when Thurmond is operating in a peaking pattern, there is a significant amount of water coming downstream that Stevens Creek has to re-regulate. This results in reservoir fluctuation. To steady levels in the Stevens Creek Reservoir, downstream flows would have to fluctuate. Either the reservoir or the river downstream of Stevens Creek Dam must fluctuate when Thurmond operates. Don agreed that the Project purpose is to modulate flow as it heads toward Augusta and downstream effects would be negative for all species without the Stevens Creek Project. Stan added that Thurmond has a maximum capacity of about 37,000 cfs and is limited to a minimum flow of 3,600 cfs, so it's hard for Stevens Creek hydro to stabilize the reservoir level for spawning. During fish spawning, the USACE tries to stabilize their lakes, which makes it extremely difficult for DESC to keep the Stevens Creek reservoir stable.

Schedule

The group discussed upcoming events related to relicensing. A Fish Passage TWC site visit may be planned for spring 2021. The recreation study officially begins in April 2021. The mussel study will be conducted in late summer 2021. A study season review meeting will likely be planned for late fall 2021. Alison asked the group if they were still under individual restrictions from their agencies to conduct in-person visits. USFWS can travel and do outside field visits in small groups. NMFS has more restrictions but potential for upcoming in-person visits is increasing. SCDNR and GADNR can conduct outside visits. USFS noted that there is a federal order in place that masks be worn on all federal property, so visits to USFS property would require masks, even when outside and 6 feet apart.

Alison said she would put together a draft list of agency attendees for a small group to visit the Project tentatively in May.

Action items from this meeting are listed below.

ACTION ITEMS:

- Elizabeth will check with Morgan on survey lengths for mussel survey.
- Kleinschmidt will add silver eel to linear regression data and send out the excel file with the formulas.
- Kleinschmidt will put together draft list of agency attendees for a site visit tentatively in May.