

Exhibit E-1 Summary of Consultation cont.

APPENDIX A

**STAKEHOLDER CONSULTATION AND CORRESPONDENCE
PART 5**

From: [stuart](#)
To: [Kelly Miller](#)
Cc: [Gerrit Jobsis](#)
Subject: Re: Follow-up from Recreational Flows Focus Group
Date: Thursday, January 15, 2015 5:04:10 PM

body{font-size:10pt;font-family:arial,sans-serif;background-color:#ffffff;color:black;}p{margin:0px;}

Kelly: Thank you for the email. There were two comments that I neglected to make at our meeting and would like to submit them to you:

1) A few years ago, Joey Holleman wrote an article in the State Newspaper describing a potential paddle. He suggested starting at the Peak Landing, paddling upstream to the dam, then downstream on river-left to the trestle and back up to Peak Landing on river-right. This would be a great paddle, but not possible at low water levels. If a relatively small amount of water were spilled at the west end of the dam, this float would be possible.

2) Your proposed portage around the west side of the dam would be a tough one, since that is the "dry side". If a small amount of water could be spilled there, the portage would be possible.

Thanks, Stuart

-----Original Message-----

From: Kelly Miller
Sent: Jan 7, 2015 4:46 PM
To: "sgreeter77@earthlink.net"
Subject: Follow-up from Recreational Flows Focus Group

Hi Stuart,

I hope you had a nice holiday season! At the Recreational Flows Focus Group I told you I would send you the map that shows where the proposed canoe portage is located at Parr Dam. This map is attached. Also, the website for the Parr Relicensing Project is www.parrfairfieldrelicense.com. At this website, you can find all of the study plans we have developed for the Project, including the Recreation Use and Needs Study Plan and the Recreational and Navigational Flows study plans.

If you have any questions on the Project, or would ever like to be added to a distribution list, where you will receive documents and meeting invites, just let me know.

Thanks!
Kelly

Kelly Miller
Regulatory Coordinator
[cid:image001.gif@01D02A99.74BE8430]
Office: 803.462.5633
www.KleinschmidtGroup.com

From: [Edge Joyner](#)
To: [Kelly Miller](#)
Subject: Re: Follow-up from Recreational Flows Focus Group
Date: Thursday, January 08, 2015 8:00:16 AM

Thank you Kelly. Please add me to the meeting invites/distribution lists; I am very interested in the process and want to be a responsible and active river advocate. I passed along to Karen Kustafik that I thought the meeting was productive, informative, and a positive step in cooperative efforts amongst diverse groups.

edye

----- On Wed, 07 Jan 2015 16:49:35 -0500 **Kelly Miller**<Kelly.Miller@KleinschmidtGroup.com> wrote -----

Hi Edye,

I hope you had a nice holiday season! At the Recreational Flows Focus Group I told you I would send you the map that shows where the proposed canoe portage is located at Parr Dam. This map is attached. Also, the website for the Parr Relicensing Project is www.parrfairfieldrelicense.com. At this website, you can find all of the study plans we have developed for the Project, including the Recreation Use and Needs Study Plan and the Recreational and Navigational Flows study plans.

If you have any questions on the Project, or would ever like to be added to a distribution list, where you will receive documents and meeting invites, just let me know.

Thanks!

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

<http://www.kleinschmidtusa.com/>

From: [stuart](#)
To: [Kelly Miller](#)
Cc: [Gerrit Jobsis](#)
Subject: Re: Follow-up from Recreational Flows Focus Group
Date: Thursday, January 15, 2015 5:04:10 PM

body{font-size:10pt;font-family:arial,sans-serif;background-color:#ffffff;color:black;}p{margin:0px;}

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1) A few years ago, Joey Holleman wrote an article in the State Newspaper describing a potential paddle. He suggested starting at the Peak Landing, paddling upstream to the dam, then downstream on river-left to the trestle and back up to Peak Landing on river-right. This would be a great paddle, but not possible at low water levels. If a relatively small amount of water were spilled at the west end of the dam, this float would be possible.

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Thanks, Stuart

-----Original Message-----

From: Kelly Miller
Sent: Jan 7, 2015 4:46 PM
To: "sgreeter77@earthlink.net"
Subject: Follow-up from Recreational Flows Focus Group

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I hope you had a nice holiday season! At the Recreational Flows Focus Group I told you I would send you the map that shows where the proposed canoe portage is located at Parr Dam. This map is attached. Also, the website for the Parr Relicensing Project is www.parrfairfieldrelicense.com. At this website, you can find all of the study plans we have developed for the Project, including the Recreation Use and Needs Study Plan and the Recreational and Navigational Flows study plans.

If you have any questions on the Project, or would ever like to be added to a distribution list, where you will receive documents and meeting invites, just let me know.

Thanks!
Kelly

Kelly Miller
Regulatory Coordinator
[cid:image001.gif@01D02A99.74BE8430]
Office: 803.462.5633
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From: [Jon Durham](#)
To: [Alison Jakupca](#); [harkinsg@dnr.sc.gov](#); [rmills84@hotmail.com](#); [Jennings, Jason E -FS](#); [stokess@dnr.sc.gov](#); [Bill Marshall](#); [edcole67@gmail.com](#)
Cc: [BARGENTIERI@scana.com](#); [Henry Mealing](#); [Kelly Miller](#); ["BOOZER, THOMAS C"](#)
Subject: Re: Draft Waterfowl Focus Group Meeting Summary
Date: Sunday, January 25, 2015 6:17:37 PM

Hello everyone,

A couple of things I would contribute.

- In the "Personal Preferences" bullet points, Keitts Bridge appears to be referenced as being on Parr Reservoir. That landing is on the Enoree, upriver of the Enoree Waterfowl Area.
- In the "Project Area Preference and Needs" bullet points, there is a reference to the foot bridge bridge in the Enoree Waterfowl Area. That bridge already exist. The conversation was about the fact that the bridge may be contributing to the over - crowding issue in the area. It does provide easier access to the far side of the area. Previously, that area was a long *walk* around the impoundment. Now wading to that area is possible because the foot bridge gets you over the creek channel out in the middle of the water.
- In the "Project Area Preference and Needs" bullet points, there is mention of "improving hunting opportunities" regarding the SCE&G property upstream of the Enoree Waterfowl Area. To be clear, the intent of the suggested enhancements to the area is to restore wetland habitat for waterfowl and other wetland dependant organisms.... critters. With it's proximity to the Enoree Waterfowl Area, it is possible that the improved area would be a sanctuary. While this would contribute to overall habitat, I am not sure it directly contributes to "hunting opportunities". Waterfowl hunters have long correlated habitat conservation and restoration with sustaining populations conducive to hunting, but the two efforts are distinct.

Chris, Ed, Rawls and I had a good wood duck shoot in a bottom off the Enoree to close the season. Over all, I had a good season, wood duck numbers were great up and down the Tyger and Enoree, heard there were some numbers of mallards in the Tyger River area. The Enoree Waterfowl area seemed less crowded, I had a good day in there during December with wood ducks, mallards, some mergansers. I hope the rest of you had an enjoyable season as well.

Jon Durham

(803) 271 6701

----- Original Message -----

From: [Alison Jakupca](#)
To: [harkinsg@dnr.sc.gov](#) ; [rmills84@hotmail.com](#) ; [Jon Durham](#) ; [Jennings, Jason E -FS](#) ; [Sam Stokes](#) ([stokess@dnr.sc.gov](#)) ; [Bill Marshall](#) ; [edcole67@gmail.com](#)
Cc: [BARGENTIERI@scana.com](#) ; [Henry Mealing](#) ; [Kelly Miller](#) ; ["BOOZER, THOMAS C"](#)
Sent: Friday, January 23, 2015 4:24 PM
Subject: Draft Waterfowl Focus Group Meeting Summary

Good Afternoon All,

I trust that everyone had a nice Christmas and New Years. Attached is a meeting summary from the December 9th Waterfowl Focus Group that you attended. Please let me know if you have any corrections, or if there are any additions that you would like to make. Any new additions will be added to the end of the summary as "Comments Submitted Subsequent to the Meeting". If you have any corrections or additions, please let me know by February 6th. At that time these notes will become final.

Thank you again for your participation at this focus group. We will certainly let you know in advance of any future waterfowl focus group meetings. Have a wonderful weekend. Alison

Alison Jakupca

Regulatory Coordinator

Kleinschmidt Associates

Office: 803.462.5628

| www.Kleinschmidtusa.com

From: [Shane Boring](#)
To: [Gerrit Jobsis](#); [Kelly Miller](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congareeriverkeeper.org\)](#); [Brandon Kulik](#); [BRESNAHAN, AMY](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [Dick Christie \(christied@dnr.sc.gov\)](#); [Frank Henning@nps.gov](#); [Fritz Rohde \(Fritz.Rohde@noaa.gov\)](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Karla Reece \(Karla.Reece@noaa.gov\)](#); [Kerry Castle \(castlek@dnr.sc.gov\)](#); [Ley, Amanda](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Ron Ahle](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Harder](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#)
Subject: RE: IFIM Memo
Date: Wednesday, April 22, 2015 5:00:58 PM

Gerrit,

Thank you for your comments; sorry I'm just getting you a response. In regards to your first comment on the high calibration flows, Jon Quebbeman – our IFIM Team Hydrologist, has provided the following explanation:

I reviewed Gerrit's comments and request for modeling flows up to 20,000 cfs. As he notes, the higher flow is an 'estimate' of habitat; this flow rate cannot be verified with transects and velocity measurements, and only stage records of higher flow pulses (subject to hysteresis) may be used to assist in model calibration. Fortunately, these sites are well studied, and high-quality hypsographic information is available for model construction, increasing confidence in model results, including wetted perimeter estimates. Although focus on model calibration and verification will be at lower flow rates, running models at these extrapolated conditions is still feasible.

I discussed your second comment regarding use of the wetted perimeter results at the Transect above Haltiwanger with Brandon. He indicates that the wetted perimeter information at Haltiwanger would be used no differently than at other wetted perimeter transects in that it will be used to develop a flow/stage relationship which can be used to predict the % of habitat wetted at various discharge levels. This at least gives us some measure of habitat without forcing the transect data into a model that won't provide a meaningful output. Keep in mind that the habitat suitability should be well characterized by the transects adjacent to Haltiwanger Island in each of the 2 channels, as well as upstream at Study Site 7.

I have distributed this response to remainder of the TWC to make certain that others do not have additional recommendations regarding the use of the wetted perimeter transect data at Haltiwanger.

Shane Boring
Environmental Scientist
Office: 803.462.5625

From: Gerrit Jobsis [mailto:gjobsis@americanrivers.org]

Sent: Monday, April 06, 2015 12:06 PM

To: Kelly Miller; Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congaareeriverkeeper.org); Brandon Kulik; BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Chad Altman (altmankc@dhec.sc.gov); Dick Christie (christied@dnr.sc.gov); Frank_Henning@nps.gov; Fritz Rohde (Fritz.Rohde@noaa.gov); Greg Mixon (mixong@dnr.sc.gov); Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Karla Reece (Karla.Reece@noaa.gov); Kerry Castle (castlek@dnr.sc.gov); Ley, Amanda; Pace Wilber (Pace.Wilber@noaa.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Ron Ahle; Rusty Wenerick (weneriwr@dhec.sc.gov); Scott Harder; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Subject: RE: IFIM Memo

Kelly,

I have reviewed the memo and have the following comments.

- I am fine with using the 9,800 cfs level logger WSEL data as a surrogate for 10,000 cfs and adding a 6,000 cfs WSEL. This is with the understanding that the 400 cfs and 2,000 cfs WSELs will still be collected and that we find a way to use the 6,000 cfs and 9,800 cfs WSELs to provide an estimate habitat availability up to our target of 20,000 cfs. As the graph below shows, project operations can affect flows between 15,000 and 20,000 cfs.
- I understand the problem with lateral flows and PHABSIM transect data. The collection of a wetted perimeter transect will be useful. I recommend the TWC discuss and reach agreement on how best to use the WP information at an upcoming meeting.

Gerrit



Gerrit Jobsis, American Rivers
Senior Director, Southeast Conservation Programs
215 Pickens Street
Columbia, SC 29205
(O) 803.771.7114 (C) 803.546.7926

Communities removed 72 dams in 2014, restoring 730 miles of rivers! How many were removed in your state? www.AmericanRivers.org/2014DamRemovals

Please consider the environment before printing this e-mail.

From: Kelly Miller [<mailto:Kelly.Miller@KleinschmidtGroup.com>]

Sent: Tuesday, March 24, 2015 5:04 PM

To: Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareriverkeeper.org); Brandon Kulik; BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Chad Altman (altmankc@dhec.sc.gov); Dick Christie (christied@dnr.sc.gov); Frank_Henning@nps.gov; Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis; Greg Mixon (mixong@dnr.sc.gov); Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Karla Reece (Karla.Reece@noaa.gov); Kelly Miller; Kerry Castle (castlek@dnr.sc.gov); Ley, Amanda; Pace Wilber (Pace.Wilber@noaa.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Ron Ahle; Rusty Wenerick (weneriwr@dhec.sc.gov); Scott Harder; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Subject: IFIM Memo

All,

Attached is a memo with progress updates on IFIM study activities. Please note that two changes to the study methodology are proposed in the memo. Please provide concurrence or your reason for not concurring with recommended changes by April 3rd.

Thanks,
Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

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From: [Jeff Carter](#)
To: [Kelly Miller](#)
Cc: [randy.mahan@sc.rr.com](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Mark Davis](#); [Alison Jakupca](#); [Steve Summer](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [btrump@scana.com](#); [Frank Henning@nps.gov](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [William Hendrix \(HendrixWB@dot.state.sc.us\)](#); [Edye Joynes](#); [Dick Christie \(dchristie@comporium.net\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [John Fantry \(jfantry@bellsouth.net\)](#); [STUTTS, BRANDON G](#); [Bill Stangler \(CRK@congareeriverkeeper.org\)](#); [Henry Mealing](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [BRESNAHAN, AMY](#); [Merrill McGregor \(merrillm@sccl.org\)](#); [Joe Wojcicki](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [ARGENTIERI, WILLIAM R](#); [rammarell@scana.com](#); [Lorianne Riggini \(RigginiL@dnr.sc.gov\)](#); [Jay Maher](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [David Haddon \(dhaddon@scana.com\)](#); [tboozer@scana.com](#); [Corbin Johnson \(Corbin.Johnson@scana.com\)](#); [Randy Mahan \(randolph.mahan@scana.com\)](#)
Subject: Re: draft LLM TWC meeting notes - 8/20/15
Date: Monday, September 14, 2015 7:49:56 PM

Kelly, I was unable to attend the meeting but would like to request clarification of WMA property within the PBL. Although I fully support no hunting above Highway 34 which is my current understanding, however, there appears to be a question as to if the entire Parr Reservoir is or is not WMA.

Please refer to page 71 of the SCDNR 2015-2016 Hunting & Fishing Regulation Guide and it identifies the entire 4,400 acres within WMA.

Additionally, I visited the State Office of DNR and was informed by a Law Enforcement Officer that they allow hunting on all PBL property above Hwy. 34. My question is as follows; Does all PBL property north of Highway 34 considered within the designated SCWMA and therefore available to be hunted by the public?

Would you allow this to be part of the follow up from the meeting held August 20, 2015?

Sent from my Verizon Wireless 4G LTE Tablet

On Sep 14, 2015 4:23 PM, Kelly Miller wrote:

All,

Attached are the draft notes from our LLM TWC meeting held on August 20, 2015. Please review and return any edits or comments to me by Friday, September 25th.

Thanks,

Kelly

Kelly Miller

Regulatory Coordinator



Office: 803.462.5633

From: [Hendrix, William B.](#)
To: [Kelly Miller](#); [Jeff Carter](#)
Cc: [randy mahan \(rmahan@sc.rr.com\)](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Mark Davis](#); [Alison Jakupca](#); [Steve Summer](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [btrump@scana.com](#); [Frank_Henning@nps.gov](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Edye Joyner](#); [Dick Christie \(dchristie@comporium.net\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [John Fantry \(jfantry@bellsouth.net\)](#); [STUTTS, BRANDON G.](#); [Bill Stangler \(CRK@congareriverkeeper.org\)](#); [Henry Mealing](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [BRESNAHAN, AMY](#); [Merrill McGregor \(merrillm@scccl.org\)](#); [Joe Wojcicki](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [ARGENTIERI, WILLIAM R](#); [rammarell@scana.com](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [Jay Maher](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [David Haddon \(dhaddon@scana.com\)](#); [tboozr@scana.com](#); [Corbin Johnson \(Corbin.Johnson@scana.com\)](#); [Randy Mahan \(randolph.mahan@scana.com\)](#)
Subject: RE: draft LLM TWC meeting notes - 8/20/15
Date: Thursday, September 17, 2015 9:17:52 AM

Kelly, I am somewhat confused by your reply to Mr. Carter. It was my recollection of the meeting that this matter of public hunting on Non-WMA property was covered by the revision that was made during the meeting to Paragraph 6.2.2 (Hunting) of the Parr SMP. As you will recall, during the meeting I pointed out that the paragraph was not accurate as written as there is hunting on SCE&G lands that are not designated WMA, as SCE&G currently leases the land within the PBL north of Hwy. 34 to its employees for hunting. It was my recollection that Bill revised the paragraph to read "Public Hunting is not allowed..." Is this not the case? Can you please forward this page with the tracking changes shown?

I think there is certainly such a degree of confusion in regards to the lands within the PBL above Hwy. 34 that warrant making this topic an agenda item for the next meeting. I would think the committee would certainly want to produce a final product free of any "gray areas."

Thank you.

Billy Hendrix

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]

Sent: Wednesday, September 16, 2015 10:23 AM

To: Jeff Carter

Cc: [randy mahan \(rmahan@sc.rr.com\)](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Mark Davis](#); [Alison Jakupca](#); [Steve Summer](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [btrump@scana.com](#); [Frank_Henning@nps.gov](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Hendrix, William B.](#); [Edye Joyner](#); [Dick Christie \(dchristie@comporium.net\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [John Fantry \(jfantry@bellsouth.net\)](#); [STUTTS, BRANDON G.](#); [Bill Stangler \(CRK@congareriverkeeper.org\)](#); [Henry Mealing](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [BRESNAHAN, AMY](#); [Merrill McGregor \(merrillm@scccl.org\)](#); [Joe Wojcicki](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [ARGENTIERI, WILLIAM R](#); [rammarell@scana.com](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [Jay Maher](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [David Haddon \(dhaddon@scana.com\)](#); [tboozr@scana.com](#); [Corbin Johnson \(Corbin.Johnson@scana.com\)](#); [Randy Mahan \(randolph.mahan@scana.com\)](#)

Subject: RE: draft LLM TWC meeting notes - 8/20/15

Mr. Carter,

Thank you for your comment regarding WMA lands within the Parr PBL. In order to fully and accurately answer your question, we also consulted with Bill Marshall with SCDNR. Here is a summary of the information we collected.

Shoreline around the Nuclear Exclusion Zone and some other specific lands owned by SCE&G are designated as part of the Property Watch Program, where SCE&G does not allow public hunting. This is enforced by SCDNR. Currently, the land within the PBL upstream of Hwy 34 has not been communicated to SCDNR as land that needs to be included in this program. However, if SCE&G does not want to allow public hunting above Hwy 34, they can communicate this with SCDNR for enforcement.

Right now, it appears that the lands in question are in a "gray area," where they are not part of the WMA (please see the SCDNR Map #4 attached), and they are also not included in the Property Watch Program. Public hunting is not encouraged, but it is also not prohibited.

To answer your question, all PBL property north of Hwy 34 is **not** designated within South Carolina's WMA, however, it has also not been designated to SCDNR as an area where hunting is prohibited to the public.

We will include your question and this response as part of the meeting notes record.

I hope this answers your question and if you have any further questions or comments, please let me know. As always, we appreciate your continued participation in the Lake and Land Management TWC, and the Parr Hydro Project Relicensing.

Thanks,

Kelly

Kelly Miller
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

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From: Jeff Carter [<mailto:jmcarter00@sc.rr.com>]

Sent: Monday, September 14, 2015 7:50 PM

To: Kelly Miller <Kelly.Miller@KleinschmidtGroup.com>

Cc: randy mahan (rmahan@sc.rr.com) <rmahan@sc.rr.com>; Erich Miarka (erich.miarka@gillscreekwatershed.org) <erich.miarka@gillscreekwatershed.org>; Robert Stroud (StroudR@dnr.sc.gov) <StroudR@dnr.sc.gov>; Mark Davis <mddavis629@gmail.com>; Alison Jakupca <Alison.Jakupca@KleinschmidtGroup.com>; Steve Summer <ssummer@scana.com>; Malcolm Leaphart (mwleapjr@att.net) <mwleapjr@att.net>; btrump@scana.com <btrump@scana.com>; Frank_Henning@nps.gov <Frank_Henning@nps.gov>; J. Hagood Hamilton Jr. (jhamilton@scana.com) <jhamilton@scana.com>; Pace Wilber (Pace.Wilber@noaa.gov) <Pace.Wilber@noaa.gov>; Bill Marshall (marshallb@dnr.sc.gov) <marshallb@dnr.sc.gov>; William Hendrix (HendrixWB@dot.state.sc.us) <HendrixWB@dot.state.sc.us>; Edye Joyner <edye@bteamkayaking.com>; Dick Christie (dchristie@comporium.net) <dchristie@comporium.net>; Chuck Hightower (hightocw@dhec.sc.gov) <hightocw@dhec.sc.gov>; Scott Collins (secollins@scana.com) <secollins@scana.com>; Wayne and Ginny Boland (wayneboland@bellsouth.net) <wayneboland@bellsouth.net>; John Fantry (jfantry@bellsouth.net) <jfantry@bellsouth.net>; STUTTS, BRANDON G <BSTUTTS@scana.com>; Bill Stangler (CRK@congareriverkeeper.org) <CRK@congareriverkeeper.org>; Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; Greg Mixon (mixong@dnr.sc.gov) <mixong@dnr.sc.gov>; Rusty Wenerick (weneriwr@dhec.sc.gov) <weneriwr@dhec.sc.gov>; Jaclyn Daly (Jaclyn.Daly@noaa.gov) <Jaclyn.Daly@noaa.gov>; Gerrit Jobsis (gjobsis@americanrivers.org) <gjobsis@americanrivers.org>; BRESNAHAN, AMY <Amy.Bresnahan@scana.com>; Merrill McGregor (merrillm@scccl.org) <merrillm@scccl.org>; Joe Wojcicki <bypas2000@yahoo.com>; Jon Durham

(jondurham@bellsouth.net) <jondurham@bellsouth.net>; Byron Hamstead
(Byron_hamstead@fws.gov) <Byron_hamstead@fws.gov>; ARGENTIERI, WILLIAM R
<BARGENTIERI@scana.com>; rammarell@scana.com <rammarell@scana.com>; Lorianne Rigg
(RigginL@dnr.sc.gov) <RigginL@dnr.sc.gov>; Jay Maher <Jay.Maher@KleinschmidtGroup.com>;
Charlene Coleman (cheetahtrk@yahoo.com) <cheetahtrk@yahoo.com>; David Haddon
(dhaddon@scana.com) <dhaddon@scana.com>; tboozier@scana.com; Corbin Johnson
(Corbin.Johnson@scana.com) <Corbin.Johnson@scana.com>; Randy Mahan
(randolph.mahan@scana.com) <randolph.mahan@scana.com>

Subject: Re: draft LLM TWC meeting notes - 8/20/15

Kelly, I was unable to attend the meeting but would like to request clarification of WMA property within the PBL. Although I fully support no hunting above Highway 34 which is my current understanding, however, there appears to be a question as to if the entire Parr Reservoir is or is not WMA.

Please refer to page 71 of the SCDNR 2015-2016 Hunting & Fishing Regulation Guide and it identifies the entire 4,400 acres within WMA.

Additionally, I visited the State Office of DNR and was informed by a Law Enforcement Officer that they allow hunting on all PBL property above Hwy. 34. My question is as follows; Does all PBL property north of Highway 34 considered within the designated SCWMA and therefore available to be hunted by the public?

Would you allow this to be part of the follow up from the meeting held August 20, 2015?

Sent from my Verizon Wireless 4G LTE Tablet

On Sep 14, 2015 4:23 PM, Kelly Miller <Kelly.Miller@KleinschmidtGroup.com> wrote:

All,

Attached are the draft notes from our LLM TWC meeting held on August 20, 2015. Please review and return any edits or comments to me by Friday, September 25th.

Thanks,

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: cmccrary.netsourceek12.com
To: [Kelly Kirven](#)
Subject: Re: Parr Reservoir waterfowl hunting
Date: Thursday, February 25, 2016 11:34:06 AM

Hey Kelly,

My apologies for the late response. I've been swamped lately.

A little back story on me, I'm a waterfowl hunter and fisherman from the Santee Cooper lakes area. Over the last 6 years I've become really involved with Santee Cooper Electric Co-op, SCDNR, and the Aquatic Plant Management Council (APMC) as an advocate for expansion of native beneficial submersed aquatic vegetation (SAV) on the lakes for wildlife habitat. The Santee Cooper lakes have a long history with SAV starting with hydrilla 25 years ago. Since then our lakes have been a rollercoaster of up and down in terms of biological stability.

With the drought of 2008 a new native plant showed up on the scene down here. *Vallisneria Americana*. Val is a native perennial SAV that is a top priority food source for all waterfowl. It makes up 70% of the diet of canvasbacks wintering in the Chesapeake Bay. It's a vital food source for other ducks such as gadwalls, pintails, widgeon, and ring-necked ducks.

As of now I am working with Santee Cooper to hopefully install some SAV enclosures this summer to introduce *vallisneria* in some new areas of the lakes.

Call and speak to Larry McCord (Director of Analytical and Biological Services) at Santee Cooper on *vallisneria*. He's a great guy and full of knowledge as it relates to aquatic plant benefits for wildlife.

As for Parr -

I think that *vallisneria* would be perfect for the reservoir as a food source and for cover for fish. It's a great filter plant that provides water clarity in the shallows. The backwater areas such as Cannon's Creek and Heller's Creek would be great introduction test sites. There is a diked area just south of the VC Summer water intake canal that would be a perfect introduction site as well. *Vallisneria* is a shallow water plant that won't grow in waters deeper than about 5ft so concerns about the intake canal don't apply.

Another idea - There are several ridges and islands that occur due east of Heller's creek and run southeast down the reservoir towards the dam.

As of now, these islands are covered in cattails. A great benefit to waterfowl would be to burn the islands and then re-seed them with native wild millets, bulrush, spikerush, button bush, Pennsylvania smartweed, all important food sources for waterfowl and all other wildlife.

Parr could be one of the best waterfowl habitats in the state and we would love to help with any labor needed to install enclosures and transplanting. I would love to be involved in any upcoming meetings on this, and would like to involve SCDNR if possible.

There are many South Carolina hunters that would benefit from Parr's wintering waterfowl,

and with Broad River WMA just up the river, if we add a vital food source to Parr, the wintering waterfowl population would sky-rocket.

Not to mention what SAV would do for the fishery.

Please keep me involved, I would love to help.

Thanks

Clark McCrary

Carolina Waterfowl Syndicate

803-378-3250.

On February 18, 2016 at 1:21 PM Kelly Kirven wrote:

Hi Clark,

This email is just to follow up from our recent conversation about waterfowl hunting on Parr Reservoir. Thank you for your feedback in response to our survey efforts. We appreciate any and all information you can provide about waterfowl hunting on the reservoir.

If you would like any additional information about the Parr Hydro Project relicensing, please visit our website at www.parrfairfieldrelicense.com.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com

From: [Congaree Riverkeeper](#)
To: [Kelly Kirven](#)
Cc: [Alex Pellett \(PellettC@dnr.sc.gov\)](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [BRESNAHAN, AMY](#); [btrump@scana.com](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Dick Christie \(dchristie@comporium.net\)](#); [Edye Joyner](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Frank Henning@nps.gov](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Jay Maher](#); [Jeff Carter \(jmcarter00@sc.rr.com\)](#); [Joe Wojcicki](#); [John Fantry \(jfantry@bellsouth.net\)](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Karen Swank Kustafik \(kakustafik@columbiasc.net\)](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [Mark Davis](#); [Merrill McGregor \(merrillm@sccccl.org\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy.mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [tboozar@scana.com](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [William Hendrix \(HendrixWB@dot.state.sc.us\)](#)
Subject: Re: draft Downstream Navigational Flow Assessment
Date: Friday, April 15, 2016 6:32:25 PM
Attachments: [CRK - Navigational Flow Assessment Comments.pdf](#)

Congaree Riverkeeper's comments on the Downstream Navigational Flow Assessment are attached.

--

Bill Stangler
Congaree Riverkeeper

On Fri, Apr 1, 2016 at 10:36 AM, Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com> wrote:

Good morning,

Attached is the draft Downstream Navigational Flow Assessment. Please review and submit any comments or edits by Friday, April 15th. We will discuss this document at the upcoming Recreation TWC meeting, to be scheduled for some time in May.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: [803.462.5633](tel:803.462.5633)

Cell: [803.917.4528](tel:803.917.4528)

www.KleinschmidtGroup.com

From: [Gerrit Jobsis](#)
To: [Kelly Kirven](#); [Alex Pellett \(PellettC@dnr.sc.gov\)](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [btrump@scana.com](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Dick Christie \(dchristie@comporium.net\)](#); [Edye Joyner](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Frank_Henning@nps.gov](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Jay Maher](#); [Jeff Carter \(jmcarter00@sc.rr.com\)](#); [Joe Wojcicki](#); [John Fantry \(jfantry@bellsouth.net\)](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Karen Swank Kustafik \(kakustafik@columbiasc.net\)](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [Mark Davis](#); [Merrill McGregor \(merrillm@sccl.org\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy.mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [tboozier@scana.com](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [William Hendrix \(HendrixWB@dot.state.sc.us\)](#)
Subject: RE: draft Downstream Navigational Flow Assessment
Date: Friday, April 08, 2016 5:49:48 PM
Attachments: [AmericanRiversNavigationFlowsStudyComments.pdf](#)

Here are American Rivers' comments.

Gerrit Jöbsis, American Rivers
Senior Director, Conservation Programs
215 Pickens Street
Columbia, SC 29205
(O) 803.771.7114 (C) 803.546.7926

Rivers connect us. Show your support for clean water and healthy rivers at www.AmericanRivers.org/Donate
Please consider the environment before printing this e-mail.

From: Kelly Kirven [mailto:Kelly.Kirven@KleinschmidtGroup.com]
Sent: Friday, April 01, 2016 10:37 AM
To: [Alex Pellett \(PellettC@dnr.sc.gov\)](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [btrump@scana.com](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Charlene Coleman \(cheetahrk@yahoo.com\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Dick Christie \(dchristie@comporium.net\)](#); [Edye Joyner](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Frank_Henning@nps.gov](#); [Gerrit Jobsis](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Jay Maher](#); [Jeff Carter \(jmcarter00@sc.rr.com\)](#); [Joe Wojcicki](#); [John Fantry \(jfantry@bellsouth.net\)](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Karen Swank Kustafik \(kakustafik@columbiasc.net\)](#); [Kelly Kirven](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [Mark Davis](#); [Merrill McGregor \(merrillm@sccl.org\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy.mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [tboozier@scana.com](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [William Hendrix \(HendrixWB@dot.state.sc.us\)](#)
Subject: draft Downstream Navigational Flow Assessment

Good morning,

Attached is the draft Downstream Navigational Flow Assessment. Please review and submit any comments or edits by Friday, April 15th. We will discuss this document at the upcoming Recreation TWC meeting, to be scheduled for some time in May.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator



Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com

From: [Gerrit Jobsis](#)
To: [Kelly Kirven](#); [Alex Pellett \(PellettC@dnr.sc.gov\)](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [David Eargle \(eargleda@dhec.sc.gov\)](#); [Fritz Rohde \(Fritz.Rohde@noaa.gov\)](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Kerry Castle \(castlek@dnr.sc.gov\)](#); [Ley, Amanda](#); [Lorianne Riggan \(RigganL@dnr.sc.gov\)](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Ron Ahle](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Castleberry \(castlews@dhec.sc.gov\)](#); [Shane Boring](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#)
Subject: RE: Final Parr Shoals Dam Turbine Venting Report
Date: Friday, April 22, 2016 5:52:29 PM
Attachments: [AmericanRiversTurbine VentingStudyComments.pdf](#)
[AmericanRiversWestChannelWaterQualityStudyComments.pdf](#)

Dear Kelly,
Please find attached American Rivers comments and recommendations for the turbine venting and west channel water quality study reports.
Gerrit

Gerrit Jöbsis, American Rivers
Senior Director, Conservation Programs
215 Pickens Street
Columbia, SC 29205
(O) 803.771.7114 (C) 803.546.7926

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Please consider the environment before printing this e-mail.

From: Kelly Kirven [mailto:Kelly.Kirven@KleinschmidtGroup.com]
Sent: Tuesday, April 19, 2016 1:20 PM
To: [Alex Pellett \(PellettC@dnr.sc.gov\)](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [David Eargle \(eargleda@dhec.sc.gov\)](#); [Fritz Rohde \(Fritz.Rohde@noaa.gov\)](#); [Gerrit Jobsis](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Kelly Kirven](#); [Kerry Castle \(castlek@dnr.sc.gov\)](#); [Ley, Amanda](#); [Lorianne Riggan \(RigganL@dnr.sc.gov\)](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Ron Ahle](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Castleberry \(castlews@dhec.sc.gov\)](#); [Shane Boring](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#)
Subject: Final Parr Shoals Dam Turbine Venting Report

Good afternoon,

Attached for your record is the Final Parr Shoals Dam Turbine Venting Report. This document will also be available at the project website at www.parrfairfieldrelicense.com.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com

From: [Henry Mealing](#)
To: [Kelly Miller](#); BARGENTIERI@scana.com; [Steve Summer](#)
Subject: FW: Entrainment Memo #4
Date: Monday, February 09, 2015 3:58:34 PM
Attachments: [image002.png](#)

For the files.

Henry

From: Fritz Rohde - NOAA Federal [mailto:fritz.rohde@noaa.gov]

Sent: Monday, February 09, 2015 3:37 PM

To: Henry Mealing

Subject: Re: Entrainment Memo #4

I emailed Shane earlier that I can't participate. Have another meeting. But I have no issues
On Mon, Feb 9, 2015 at 3:26 PM, Henry Mealing <Henry.Mealing@kleinschmidtgroup.com>
wrote:

Hey TWC,

I pulled together some additional data from the turbine mortality database to answer Byron's
questions that he posed for the group discussion. I know this doesn't give you much time, but
we just finished pulling data together this afternoon.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

Lexington, SC 29072

[706-339-3209](tel:706-339-3209)

www.KleinschmidtGroup.com

From: Kelly Miller

Sent: Friday, January 30, 2015 11:35 AM

To: Alison Jakupca; BARGENTIERI@scana.com; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler
(CRK@congariverkeeper.org); BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Chad
Altman (altmankc@dhec.sc.gov); Dick Christie (christied@dnr.sc.gov); Fritz Rohde (Fritz.Rohde@noaa.gov);
Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon (mixong@dnr.sc.gov); Hal Beard (BeardH@dnr.sc.gov);
Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Karla Reece (Karla.Reece@noaa.gov); Kelly
Miller; QUATTLEBAUM, MILTON; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy
mahan (rmahan@sc.rr.com); Robert Stroud (StroudR@dnr.sc.gov); Ron Ahle; Sam Stokes (stokess@dnr.sc.gov);
Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Subject: Entrainment Memo #4

All,

Attached for your review is the Entrainment Hold Point Memo #4. The memo provides the
proposed survival estimates for fishing passing through Parr and Fairfield turbines. We will
discuss this memo during a conference call, scheduled for February 10th.

Thanks!

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: [803.462.5633](tel:803.462.5633)

www.KleinschmidtGroup.com

From: [ARGENTIERI, WILLIAM R](mailto:ARGENTIERI.WILLIAM.R)
To: "Wenerick, William 'Rusty'"<WENERIWR@dhec.sc.gov>
Cc: [SUMMER, STEPHEN E](mailto:SUMMER.STEPHEN.E); [Henry Mealing](mailto:Henry.Mealing); [Kelly Miller](mailto:Kelly.Miller); [Hightower, Charles](mailto:Hightower.Charles)
Subject: RE: Parr Hydro Relicensing - Water Quality Memo
Date: Friday, February 06, 2015 10:19:13 AM

Rusty,

Thank you for the quick response. This is very helpful. We will work on a plan to use the existing equipment at Parr to provide aeration during the appropriate times. Our aim will be to finalize the plan during the relicensing process and make it part of the settlement agreement.
Bill

From: Wenerick, William "Rusty" [<mailto:WENERIWR@dhec.sc.gov>]

Sent: Friday, February 06, 2015 9:51 AM

To: ARGENTIERI, WILLIAM R

Cc: SUMMER, STEPHEN E; Henry Mealing; Kelly Miller; Hightower, Charles

Subject: Re: Parr Hydro Relicensing - Water Quality Memo

***This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Dear Bill,

It was a pleasure meeting with you the other day to discuss the additional water quality data you collected this past summer and fall, and to discuss the results of your tests on the aeration capabilities of the existing equipment at Parr. DHEC does not see any need to collect additional data; however, we would like to request that you explore developing a plan for using your existing equipment to provide aeration at those times when you anticipate DO excursions in your discharge based on data from the USGS station. The goal of the plan should be to meet the DO standard in your discharge at all times.

Thanks very much for all your efforts to facilitate our review. Please don't hesitate to call me or Chuck Hightower, should you have any questions.

Rusty Wenerick

William R. "Rusty" Wenerick, Project Manager

DHEC Bureau of Water

2600 Bull Street, Columbia, SC 29201

Phone: (803) 898-4266

Fax: (803) 898-7344

Email: Rusty.Wenerick@dhec.sc.gov

401/WQC Website:

<http://www.scdhec.gov/environment/WaterQuality/401Certification/Overview/>

Nav Waters Website: <http://www.scdhec.gov/environment/WaterQuality/NavigableWaters/>

Research: <http://link.springer.com/article/10.1007/s00267-013-0158-x>

From: Kelly Miller <Kelly.Miller@KleinschmidtGroup.com>

Sent: Monday, January 26, 2015 1:39 PM

To: Hightower, Charles; Wenerick, William "Rusty"

Cc: ARGENTIERI@scana.com; SUMMER, STEPHEN E; Henry Mealing

Subject: Parr Hydro Relicensing - Water Quality Memo

Good afternoon Chuck and Rusty,

We wanted to follow up with you on our relicensing activities regarding the Project's water quality issues. In our original Water Quality Report and Addendum, we identified some historic low dissolved oxygen (DO) readings at the tailrace USGS monitor and researched those a little further. We performed some additional collections in the tailrace and forebay in late summer/fall 2014 during which we did not observe any low DO readings. We also did some initial testing on the Parr Shoals turbines to see if they could aerate for potentially increasing DO levels in the turbine discharge.

We have attached a memo that summarizes the results of our recent investigations and would like to have a meeting with y'all to discuss our findings and how they relate back to the information needed to obtain a 401 Certificate for the Parr Hydroelectric Project. We have identified February 3 and 4 as two dates that we have availability all day long to meet with you. We think that it will take up to 2 hours for our discussions. Please let us know if you would be available on these days and if so, what time will work best for you.

Thank you for your continued cooperation with SCE&G in the relicensing of the Parr Hydroelectric Project.

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Eargle, David A.](#)
To: [Kelly Kirven](#)
Cc: [Glover, James](#)
Subject: Re: draft Monticello Mussel Report
Date: Tuesday, February 02, 2016 10:31:52 AM

Hi Kelly,

I had a chance to read over the mussel survey report. Looks like it will serve as good baseline data for us. Most of the species they found are what you might expect in a reservoir like Monticello. No shock that they didn't find *Toxolasma pullus* or *Lasmigona decorata*. While the surveyors suggested that it was a little unusual to have that many *Elliptio angustata* in a reservoir, I've seen them there myself and so wasn't surprised by that either. Of course the reservoir is full of *Corbicula fluminea* but we all knew that already.

What was surprising to me was first that there were essentially no mussels in the recreational part of the lake whereas the main impoundment had a fairly diverse and evenly-distributed fauna. Also, the presence of *Villosa vaughaniana* at four sites was not expected (by me). From my experience, this guy is pretty rare even in its preferred habitat and would be an unlikely find in Lake Monticello. I'm not sure what to make of these findings. We will probably have to think a little more about this.

As for the snails, *Campeloma* is to be expected. *Cipangopalodina japonica* is an invasive that is spreading around the state. I found it in Lake Monticello several years ago. As for the *Viviparus georgianus* this is the first I've heard of it being in Lake Monticello. I contacted snail expert Dr. Rob Dillon in Charleston and he was also unaware. He had received reports of its recent spread into a few other water bodies in SC. It has been in Lakes Marion and Moultrie since the 1990s. It seems the jury is still out on whether the spread of these species is likely to cause any ecological trouble.

Just a few thoughts.

David

From: Kelly Kirven
Sent: Thursday, January 21, 2016 10:25 AM
To: Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareriverkeeper.org); BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Caleb Gaston (caleb.gaston@scana.com); Altman, Chad; Eargle, David A.; Gerrit Jobsis (gjobsis@americanrivers.org); MixonG@dnr.sc.gov; Henry Mealing; Jay Maher; Glover, James; Karla

Reece (Karla.Reece@noaa.gov); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Sam Stokes (stokess@dnr.sc.gov); Castleberry, William; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Subject: draft Monticello Mussel Report

All,

Attached for your review is the draft Monticello Mussel Report. Please provide any comments or edits to this report by Friday, February 5th. We will discuss this report at the upcoming RTE TWC meeting (date TBD).

Please note that the Word version is included for comment and the PDF version is included because it has site photos in Appendix B.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com

From: [Wenerick, William "Rusty"](#)
To: [Henry Mealing](#); [Kelly Kirven](#)
Cc: [Bill Argentieri - SCE&G \(BArgentieri@scana.com\)](#); [Shane Boring](#); [Eargle, David A.](#); [Hightower, Charles](#); [Glover, James](#)
Subject: Re: Genetics Testing of Mussel - Monticello Reservoir
Date: Thursday, April 21, 2016 1:40:29 PM
Attachments: [image003.png](#)
[image002.png](#)

Henry and Kelly,

We are OK with not asking for genetic testing given this language in the report:
"However, the seven individuals identified as Carolina Creekshell were done so based on conchological (shell), and soft part anatomy characteristics, and should be considered as such until further study proves otherwise."

Thanks for your patience and please call if you have any questions.

Sincerely,
Rusty Wenerick

William R. "Rusty" Wenerick, Project Manager
DHEC Bureau of Water
2600 Bull Street, Columbia, SC 29201
Phone: (803) 898-4266
Fax: (803) 898-7344
Email: Rusty.Wenerick@dhec.sc.gov
401/WQC
Website: <http://www.scdhec.gov/environment/WaterQuality/401Certification/Overview/>
Nav Waters Website: <http://www.scdhec.gov/environment/WaterQuality/NavigableWaters/>
Research: <http://link.springer.com/article/10.1007/s00267-013-0158-x>

From: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>
Sent: Monday, March 28, 2016 11:35 AM
To: Eargle, David A.; Wenerick, William "Rusty"; Hightower, Charles
Cc: Kelly Kirven; Bill Argentieri - SCE&G (BArgentieri@scana.com); Shane Boring
Subject: Genetics Testing of Mussel - Monticello Reservoir

David, Rusty, and Chuck

At our last Parr Relicensing - RTE TWC meeting, SCE&G/Kleinschmidt was given an action item to follow up with genetic testing for verification of the Carolina creekshell specimens found in Monticello Reservoir during the 2015 surveys. During the TWC meeting, David told us that Three Oaks stated that the genetic testing would cost around \$500. Shane and I followed up

on this item, and Three Oaks told us that the costs for the genetic testing would require the collection of additional specimens and the costs for genetic analysis through a lab.

Based on the information that we currently have, the costs to do the genetic testing for Carolina creekshell is actually between \$3,500 to \$5,000.

From the “relicensing standpoint”, we know that the species “might” be in Monticello Reservoir. The Carolina creekshell is not federally protected, but is a priority species for the State. We are developing habitat enhancements for fish in the lake that could enhance habitats for mussels in general. We are having a difficult time finding a compelling reason to push forward on this effort.

Before we commit to spend this extra expense, I wanted to find out from SCDHEC if we really need to spend the money on genetic testing for this species in addressing required SCDHEC issues/concerns.

I will be glad to follow up with you on a call to talk it through if requested. Thanks for your input on this topic.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane

Suite 301

Lexington, SC 29072

706-339-3209

www.KleinschmidtGroup.com



From: [Bill Marshall](#)
To: [Kelly Miller](#); [Alison Jakupca](#); BARGENTIERI@scana.com; [Bill Stangler \(CRK@congariverkeeper.org\)](mailto:Bill.Stangler@congariverkeeper.org); [BRESNAHAN, AMY](#); [Bret Hoffman](#); [Bruce Halverson](#); [Byron Hamstead \(Byron.hamstead@fws.gov\)](mailto:Byron.hamstead@fws.gov); [Dick Christie](#); [Frank Henning@nps.gov](mailto:Frank.Henning@nps.gov); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](mailto:Gerrit.Jobsis@americanrivers.org); [Greg Mixon](#); [Henry Mealing](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](mailto:J.HagoodHamilton@scana.com); [Jay Maher](#); [Joe Wojcicki](#); [Malcolm Leaphart \(mwleapjr@att.net\)](mailto:Malcolm.Leaphart@att.net); [Pace Wilber \(Pace.Wilber@noaa.gov\)](mailto:Pace.Wilber@noaa.gov); rammarell@scana.com; [Randy Mahan \(randolph.mahan@scana.com\)](mailto:Randy.Mahan@scana.com); [randy mahan \(rmahan@sc.rr.com\)](mailto:randy.mahan@sc.rr.com); [Scott Harder](#); [Steve Summer](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](mailto:Tom.McCoy@fws.gov); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](mailto:Wayne.and.Ginny.Boland@bellsouth.net)
Subject: RE: Operations Model - Historic Scenario Period of Record
Date: Wednesday, February 18, 2015 12:57:50 PM

Hi Kelly,

Thanks for providing this information. I think DNR staff are okay with the proposed period of record (referenced in your email) to be used for the model verification needs which were discussed at the Sept 17, 2014 Operations RCG mtg.

Bill Marshall
SCDNR

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]
Sent: Monday, January 26, 2015 4:51 PM
To: Alison Jakupca; BARGENTIERI@scana.com; Bill Marshall; Bill Stangler (CRK@congariverkeeper.org); BRESNAHAN, AMY; Bret Hoffman; Bruce Halverson; Byron Hamstead (Byron.hamstead@fws.gov); Dick Christie; Frank_Henning@nps.gov; Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon; Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jay Maher; Joe Wojcicki; Kelly Miller; Malcolm Leaphart (mwleapjr@att.net); Pace Wilber (Pace.Wilber@noaa.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Scott Harder; Steve Summer; Tom McCoy (thomas_mccoy@fws.gov); Wayne and Ginny Boland (wayneboland@bellsouth.net)
Subject: Operations Model - Historic Scenario Period of Record

Good afternoon RCG members,

After reviewing the available periods of record for the Alston gage flows, Parr and Fairfield hourly generation data, and Parr hourly reservoir stage, we have selected a 2-week period in 2005 that represents normal baseline flows, a range of generation and pumping for the Fairfield development, and contains a high inflow event. We are proposing to use this period of record for the historic scenario requested during the last RCG meeting. Fortunately, SCE&G also has records of the Monticello reservoir for this period of record, which we will include in our results comparison.

Please review this period and indicate to us your agreement (or if you take exception) by next Monday, February 2nd of this period of record sufficient to demonstrate the model accuracy across a range of project operating conditions.

Thanks,
Kelly

Kelly Miller
Regulatory Coordinator

The logo for Kleinschmidt, featuring the word "Kleinschmidt" in a bold, sans-serif font with a green underline.

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Bill Marshall](#)
To: [Kelly Miller](#); [Henry Mealing](#)
Subject: FW: draft Fish Entrainment Report
Date: Tuesday, May 05, 2015 5:31:01 PM
Attachments: [RBR Entrainment Effects 1997 \(2\).pdf](#)

Hi Henry, as discussed earlier, I am forwarding to you the comments from DNR biologist, Ron Ahle along with the attached report on entrainment studies at the Richard B Russell pump storage project.

Let us know if you all have questions.

Thanks,
Bill Marshall
SCDNR
803-734-9096

From: Ron Ahle
Sent: Thursday, April 23, 2015 2:15 PM
To: Bill Marshall
Cc: Hal Beard; Dick Christie; Greg Mixon; Lorianne Riggin
Subject: FW: draft Fish Entrainment Report

Hi Bill,

I have reviewed the draft entrainment report for Parr Hydro Project and have some issues with it. My primary concern is the lack of information on entrainment mortality with an emphasis on clupeid survival. These fragile fish are very different from other fish in their tolerance ranges and generally have high mortality at pumpback operations for reasons other than turbine strikes. The draft report appears to address entrainment mortality in terms of turbine strikes as provided in Table 3-13. This is good information, but this report needs to address the total entrainment mortality to provide a better understanding of the operational impacts. Studies done at Richard B Russell, a pump back project with similar turbines and similar capacity, addressed total entrainment mortality. In the attached RBR document on page 376 it is stated that "Mortality rates ranged from 65.0 to 100.0 percent for clupeids (blueback herring, threadfin shad, and gizzard shad), 29.5 to 85.0 percent for sunfish and crappie, 0.0 to 28.5 percent for catfish, 17.8 to 72.1 percent for yellow perch, and 45.3 to 81.8 percent for Morone sp. (striped bass, hybrid bass, and white perch). A significant positive relationship between water temperature and mortality was found for clupeids, catfish, and Morone sp. (as water temperature increases mortality increases)." Summary tables for immediate, 24 hr, and 48 hr mortality are also provided in the same document in the section entitled "**Pumpback Fish Mortality Studies**" from page 376-395. This type of information is needed in the entrainment report for Parr Hydro Project. I believe this type of project information (from RBR) is more relevant to the Fairfield pump storage development than the turbine studies cited in the EPRI documents. Frankly, the mortality estimates from RBR may be more relevant than the number of fish entrained. In recent TWC meetings, questions were raised about the numbers of clupeids entrained at RBR verses Fairfield mainly based on fish present. This may be a legitimate issue, but it does not change the mortality rate which should be based on the percentage of fish that actually die as a result of entrainment.

Another thing I do not understand about the report is how (as indicated in Table3-13) the Clupeidae family has a lower mortality rate than their surrogate Cyprinadae. Maybe this is a typo.

These are my comments.

Later,

Ron

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]

Sent: Tuesday, April 21, 2015 3:05 PM

To: Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall; Bill Stangler (CRK@congariverkeeper.org); BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Chad Altman (altmankc@dhec.sc.gov); Dick

Christie; Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon; Hal Beard; Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Miller; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Robert Stroud; Ron Ahle; Sam Stokes Jr.; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Subject: draft Fish Entrainment Report

All,

Attached is the draft Fish Entrainment Report for the Parr Hydro Project. Please review and submit any comments or edits by Friday, May 8th. Also attached for your reference is a PDF document containing appendices A, B, and C.

Thanks,

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

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From: [ARGENTIERI, WILLIAM R](#)
To: [Henry Mealing](#); [Shane Boring](#)
Cc: [Kelly Miller](#); [STUTTS, BRANDON G](#)
Subject: FW: Broad River RRH Spawning Aggregation
Date: Friday, May 08, 2015 4:46:31 PM

From: QUATTLEBAUM, MILTON
Sent: Friday, May 08, 2015 4:39 PM
To: SUMMER, STEPHEN E; ARGENTIERI, WILLIAM R
Subject: FW: Broad River RRH Spawning Aggregation

FYI

From: Scott Lamprecht [<mailto:LamprechtS@dnr.sc.gov>]
Sent: Friday, May 08, 2015 3:08 PM
To: Shane Boring; QUATTLEBAUM, MILTON
Subject: Broad River RRH Spawning Aggregation

*****This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.**

Shane & Milton,

On Wed. May 6 we shocked the stretch below Parr Dam looking specifically for RRH juveniles (water 20 C, 3200 cfs). We were not successful in capturing any. However, we did collect 18 adults in spawning condition; flowing tuberculate males and egg flowing females. 15 of these came in a small area depicted in the attached file, located at Lat 34.253442 lon -81.326967 (slightly different than google screen shot). This shoot was characterized by fast flow and woody debris; downstream of a slight bend in the river against Henderson Island. The number of fish was significant in that it represented one of the highest concentration of spawning condition fish I have seen. This site is worthy of further habitat characterization. We could have collected more if we had more dippers and could handle the boat better in the fast water. We may have dipped 60% of the fish observed. This is with one boat only. Pretty exciting.

Scott Lamprecht
Freshwater Fisheries Coordinator Region IV
SC Department of Natural Resources
305 Black Oak Road
Bonneau, SC 29431
843 825-3387
843 870-5810



From: [Shane Boring](#)
To: [Bill Marshall](#); [Kelly Miller](#)
Subject: RE: Rocky Shoals Spider Lily Survey
Date: Thursday, May 21, 2015 3:07:05 PM

Thanks, Bill. Bill Stangler has indicated that we're much less likely to see anything on day 2, and since it's a straight channel (no islands), we plan to hit it with a skeleton crew to make sure we cover the study area. Point is, you won't miss much on Day 2. We'll count you in for Day 1.

Shane Boring
Environmental Scientist
Office: 803.462.5625
www.KleinschmidtGroup.com

From: Bill Marshall [mailto:MarshallB@dnr.sc.gov]

Sent: Thursday, May 21, 2015 2:50 PM

To: Kelly Miller; Shane Boring

Subject: RE: Rocky Shoals Spider Lily Survey

Kelly and Shane,

I'd like to join you all for the Day 1/Tuesday survey if that still works for you. I cannot go on Day 2.

Looks like I do need to bring a boat.... but please let me know if do not need to bring a boat.

Thanks,

Bill

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]

Sent: Thursday, May 21, 2015 12:58 PM

To: Shane Boring; Henry Mealing; Jordan Johnson; Jared Porter; STUTTS, BRANDON G; Caleb Gaston (caleb.gaston@scana.com); BRESNAHAN, AMY; Bill Stangler (CRK@congareriverkeeper.org); Bill Marshall; Katy Langley

Subject: Rocky Shoals Spider Lily Survey

Good afternoon!

This email is only being sent to those members of the RT&E TWC that indicated an interest in participating in the Rocky Shoals Spider Lily (RSSL) Survey. As promised, below are details about next week's survey.

Day 1 (Tuesday, May 26th)

Attendees: Shane Boring, Henry Mealing, Jordan Johnson, Jared Porter, Brandon Stutts, Amy Bresnahan, Caleb Gaston, Bill Stangler, Bill Marshall (?)

Boats: 3 single kayaks (Henry), 1 single kayak (Shane), 1 single kayak (Brandon), 1 single kayak (Bill S.), 1 single kayak (Amy B.), Kleinschmidt's Riverhawk

Meeting location: **Meet at the Columbia Rowing Club at 7:00am**; Logan from River Runner Outdoor Center will meet us there to load boats and transport up to the put-in location at Haltiwanger Island

Field Equipment: All field equipment will be provided by Kleinschmidt; **please bring your lunch and snacks, and your kayak (if indicated)**

Day 2 (Wednesday, May 27th)

Attendees: Jared Porter, Katy Langley, Brandon Stutts, Amy Bresnahan, Caleb Gaston, Henry Mealing (?), Bill Marshall (?)

Boats: Riverhawk x2 (Katy and Jared), 1 single kayak (Brandon), 1 single kayak (Amy B.), 3 single kayaks (Henry)

Meeting location: **Meet at the Palmetto Trail parking area at the Alston gage at 8:00am**; Jared will

meet Brandon at Fulmer Bottom at 7:30am to leave a car; take out at Fulmer Bottom

Field Equipment: All field equipment will be provided by Kleinschmidt; **please bring your lunch and snacks, and your kayak (if indicated)**

Tuesday will be a long day, so prepare accordingly. If you have any questions, or won't be able to join us as planned, please let myself or Shane know ASAP.

Thanks!

Kelly

Kelly Miller

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Bill Marshall](#)
To: [Kelly Miller](#)
Cc: [Dick Christie](#)
Subject: RE: draft Operations RCG meeting notes - 5/5/15
Date: Thursday, June 11, 2015 3:04:37 PM

Hi Kelly

In regard to the homework assignments from the May 5 meeting, Dick Christie says he has looked into the issue of operation effects on downstream flows in regards to striped bass, and DNR does have a concern that project flows may be disrupting or limiting striped bass spawning success (as well as other diadromous fish species) in the Congaree River. We recommend that this issue be discussed as we go forward in the relicensing process.

Thanks,

Bill Marshall

SCDNR

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]
Sent: Monday, June 08, 2015 10:34 AM
To: Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall; Bill Stangler (CRK@congareriverkeeper.org); BRESNAHAN, AMY; Bret Hoffman; Bruce Halverson; Byron Hamstead (Byron_hamstead@fws.gov); Dick Christie; Frank_Henning@nps.gov; Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon; Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jay Maher; Joe Wojcicki; Kelly Miller; Lorianne Riggis; Malcolm Leaphart (mwleapjr@att.net); Pace Wilber (Pace.Wilber@noaa.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Scott Harder; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov); Wayne and Ginny Boland (wayneboland@bellsouth.net)
Subject: draft Operations RCG meeting notes - 5/5/15

Good morning all,

During the last Operations RCG meeting, held on May 5, 2015, the group discussed the possible need for any additional edits for finalizing the model. At this point, all revisions have been made and the Parr-Fairfield Operations Model is now considered complete. If you would like to have a copy of the model, please let me know and I will make sure you receive one.

Attached are the draft notes from the May 5th Operations RCG meeting. Please review and send any comments or edits back to me by Monday, June 22nd. Please note that the PowerPoint presentation given during the meeting will be attached to the final notes.

Thanks,

Kelly

Kelly Miller
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Dick Christie](#)
To: [Kelly Miller](#)
Subject: RE: Draft Waterfowl Surveys
Date: Thursday, July 02, 2015 4:47:46 PM

You Are welcome. Have a great holiday as well!

From: Kelly Miller [<mailto:Kelly.Miller@KleinschmidtGroup.com>]

Sent: Thursday, July 02, 2015 3:25 PM

To: Dick Christie

Cc: Willie Simmons; Sam Stokes Jr.; Billy Dukes; Bill Marshall; Henry Mealing; ARGENTIERI, WILLIAM R; Alison Jakupca

Subject: Re: Draft Waterfowl Surveys

Thanks for the quick response Dick. And as always, we appreciate DNR's continued participation in the relicensing of Parr Hydro.

Hope you all have a great 4th of July!

Kelly

Sent from my iPhone

On Jul 2, 2015, at 3:17 PM, Dick Christie <ChristieD@dnr.sc.gov> wrote:

[Hi Kelly - we can live with question #2 in the survey.](#)

From: Kelly Miller [<mailto:Kelly.Miller@KleinschmidtGroup.com>]

Sent: Thursday, July 02, 2015 11:28 AM

To: Dick Christie

Cc: Willie Simmons; Sam Stokes Jr.; Billy Dukes; Bill Marshall; Henry Mealing; ARGENTIERI, WILLIAM R; Alison Jakupca

Subject: RE: Draft Waterfowl Surveys

Hi Dick,

Thank you for the comments you submitted regarding the waterfowl surveys. We agree to delete question 4 from the Enoree survey. However, we have some concerns over deleting question 2, as it is a common question asked for recreation surveys, and provides information that FERC typically likes to see. We understand that Enoree can be a busy area for waterfowl hunting, but would like to get the hunter's perception on how crowded they believe the area to be.

We would like to get a little more information from DNR on why this question should be deleted from the survey. We will be glad to have a conference call with you to discuss this issue. Please let me know your availability and I can schedule something in the next two weeks. We hope to have these surveys finalized in the next few weeks so that we can focus on our distribution methods prior to the start of waterfowl hunting season.

As a side note, we distributed these surveys to the US Forest Service, as they also expressed an interest in the waterfowl hunting areas. We are currently waiting to hear back from them, and I will be glad to share their comments once received.

Thanks,

Kelly

Kelly Miller

Regulatory Coordinator

Office: 803.462.5633

www.KleinschmidtGroup.com

From: Dick Christie [<mailto:ChristieD@dnr.sc.gov>]

Sent: Monday, June 15, 2015 1:36 PM

To: Kelly Miller

Cc: Willie Simmons; Sam Stokes Jr.; Billy Dukes; Bill Marshall

Subject: RE: Draft Waterfowl Surveys

Hi Kelly - I have heard from DNR staff regarding the waterfowl surveys. We are good with the surveys for Parr and Monticello. For the Enoree River survey, we are not comfortable with questions 2 and 4 and request that they be deleted. Let me know if you have any other questions. Thanks.

From: Kelly Miller [<mailto:Kelly.Miller@KleinschmidtGroup.com>]

Sent: Friday, May 22, 2015 10:59 AM

To: Willie Simmons; Sam Stokes Jr.; Dick Christie; Bill Marshall; Billy Dukes

Cc: ARGENTIERI, WILLIAM R; Henry Mealing; Alison Jakupca

Subject: Draft Waterfowl Surveys

Good morning gentlemen,

Attached are three draft waterfowl surveys we have prepared for Enoree, Parr and Monticello. Please review and let me know if you have any comments or edits.

Thanks!

Kelly

Kelly Miller

Regulatory Coordinator

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Lorianne Riggin](#)
To: [Kelly Miller](#); [Alison Jakupca](#)
Cc: [Dick Christie](#); [Bill Marshall](#); [Greg Mixon](#)
Subject: Habitat Enhancement Verbiage for Monticello SMP
Date: Thursday, September 03, 2015 9:08:42 AM
Attachments: [Fisheries Habitat Enhancement Verbiage Monticello SMP final.docx](#)

Howdy All!

Attached is the verbiage we are suggesting for the Monticello SMP.
Please let me know if you have any questions or require more info.

Thanks,
Lorianne

Lorianne Riggin
Office of Environmental Programs
South Carolina Department of Natural Resources
1000 Assembly Street, PO Box 167
Columbia, SC 29202
Cell 803-667-2488
www.dnr.sc.gov

From: [Lorianne Riggin](#)
To: [Alison Jakupca](#)
Cc: [Dick Christie](#); [Bill Marshall](#); [Greg Mixon](#); [Bill Argentieri \(bargentieri@Scana.com\)](#); [BOOZER, THOMAS C](#); [Henry Mealing](#); [Randy Mahan](#); [Kelly Miller](#)
Subject: RE: Habitat Enhancement Verbiage for Monticello SMP
Date: Monday, October 26, 2015 2:55:39 PM

Hey Alison,

I think that suits the intentions of SCDNR and SCE&G quite nicely. Kudos to the wordsmiths!

Thanks,

Lorianne

Lorianne Riggin

Office of Environmental Programs

South Carolina Department of Natural Resources

1000 Assembly Street, PO Box 167

Columbia, SC 29202

Cell 803-667-2488

www.dnr.sc.gov

From: Alison Jakupca [mailto:Alison.Jakupca@KleinschmidtGroup.com]

Sent: Monday, October 26, 2015 2:52 PM

To: Lorianne Riggin

Cc: Dick Christie ; Bill Marshall ; Greg Mixon ; Bill Argentieri (bargentieri@Scana.com) ; BOOZER, THOMAS C ; Henry Mealing ; Randy Mahan ; Kelly Miller

Subject: RE: Habitat Enhancement Verbiage for Monticello SMP

Hi Lorianne,

I hope that you are doing well. We revisited the Monticello fisheries habitat enhancement language subsequent to the reservoir fluctuation/habitat enhancement meeting that was held on September 29th. We had a few tweaks for SCDNR's consideration. Please let me know your thoughts and we will get it incorporated into the SMP. Thanks and take care,

Alison

Alison Jakupca

Regulatory Coordinator

Kleinschmidt Associates

Office: 803.462.5628

www.Kleinschmidtusa.com

From: Lorianne Riggin [mailto:RigginL@dnr.sc.gov]

Sent: Thursday, September 03, 2015 9:08 AM

To: Kelly Miller <Kelly.Miller@KleinschmidtGroup.com>; Alison Jakupca

<Alison.Jakupca@KleinschmidtGroup.com>

Cc: Dick Christie <ChristieD@dnr.sc.gov>; Bill Marshall <MarshallB@dnr.sc.gov>; Greg Mixon <MixonG@dnr.sc.gov>

Subject: Habitat Enhancement Verbiage for Monticello SMP

Howdy All!

Attached is the verbiage we are suggesting for the Monticello SMP.

Please let me know if you have any questions or require more info.

Thanks,
Lorianne

Lorianne Riggin

Office of Environmental Programs

South Carolina Department of Natural Resources

1000 Assembly Street, PO Box 167

Columbia, SC 29202

Cell 803-667-2488

www.dnr.sc.gov

From: [Alex Pellett](#)
To: [Gerrit Jobsis](#); [Kelly Kirven](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall](#); [Bill Stangler \(CRK@congareriverkeeper.org\)](#); [BRESNAHAN, AMY](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [Dick Christie](#); [Fritz Rohde \(Fritz.Rohde@noaa.gov\)](#); [Greg Mixon](#); [Hal Beard](#); [Henry Mealing](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Jordan Johnson](#); [Karla Reece \(Karla.Reece@noaa.gov\)](#); [Lorianne Riggin](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud](#); [Ron Ahle](#); [Sam Stokes Jr.](#); [Shane Boring](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#)
Cc: [Scott Harder](#)
Subject: RE: Parr streamflow interactive plots
Date: Wednesday, January 27, 2016 3:48:58 PM

Thanks for the feedback,

I did not modify the data except as described in the footnote in my email below. My intent was to clarify the information presented in figures 1-6 (in the top graph), and figures 7-12 (in the lower graph).

If I understand correctly, the estimated flows have been lagged with a time delay, but they have not been attenuated. The regional regression coefficients could possibly attenuate peaks and troughs (better than straight area proration), but the regression coefficients couldn't be used between the Alston and Congaree gages. So perhaps the blue lines in the app (the red lines in Figures 1-12) are flashier than they should be.

Figures 13-18 allow for comparison of upstream prorated flows to Congaree gage flows, and indeed the prorated upstream flows tend to peak higher.

C. Alex Pellett

Hydrologist, South Carolina Department of Natural Resources

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Fax: (864) 654 - 9168

Cell: (864) 722 - 3212

From: Gerrit Jobsis [mailto:gjobsis@americanrivers.org]

Sent: Tuesday, January 26, 2016 4:16 PM

To: Alex Pellett ; Kelly Kirven ; Alison Jakupca ; ARGENTIERI, WILLIAM R ; Bill Marshall ; Bill Stangler (CRK@congareriverkeeper.org) ; BRESNAHAN, AMY ; Byron Hamstead (Byron_hamstead@fws.gov) ; Caleb Gaston (caleb.gaston@scana.com) ; Chad Altman (altmankc@dhec.sc.gov) ; Dick Christie ; Fritz Rohde (Fritz.Rohde@noaa.gov) ; Greg Mixon ; Hal Beard ; Henry Mealing ; Jay Maher ; Jim Glover (gloverjb@dhec.sc.gov) ; Jordan Johnson ; Karla Reece (Karla.Reece@noaa.gov) ; Lorianne Riggin ; rammarell@scana.com ; Randy Mahan (randolph.mahan@scana.com) ; randy mahan (rmahan@sc.rr.com) ; Robert Stroud ; Ron Ahle ; Sam Stokes Jr. ; Shane Boring ; Steve Summer ; STUTTS, BRANDON G ; Tom McCoy (thomas_mccoy@fws.gov)

Cc: Scott Harder

Subject: RE: Parr streamflow interactive plots

Thanks Alex. This is a great way to look at the data. Just to make sure I am interpreting this correctly, you didn't do any routing to account for attenuation of flows from the upstream gages to the Parr Reservoir headwaters. Assuming that's right it means that shorter term inflow peaks (and probably troughs too) are likely exaggerated from what would actually occur at the upstream project boundary.

Gerrit

Gerrit Jöbsis, American Rivers
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From: Alex Pellett [<mailto:PellettC@dnr.sc.gov>]

Sent: Tuesday, January 26, 2016 3:53 PM

To: Kelly Kirven; Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall; Bill Stangler (CRK@congareriverkeeper.org); BRESNAHAN, AMY; Byron Hamstead (Byron_hamstead@fws.gov); Caleb Gaston (caleb.gaston@scana.com); Chad Altman (altmankc@dhec.sc.gov); Dick Christie; Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis; Greg Mixon; Hal Beard; Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Lorianne Riggis; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Robert Stroud; Ron Ahle; Sam Stokes Jr.; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov)

Cc: Scott Harder

Subject: Parr streamflow interactive plots

Good afternoon,

First of all, thanks for the cordial welcome at the meeting last week. I really appreciate the efforts members of the group made to introduce themselves and help me get oriented.

There was some interest among group members in getting a closer look at the inflow and outflow datasets. Perhaps not everyone is eager to dig through spreadsheets, so I've prepared a few supplementary graphs using the data which Kleinschmidt provided* (specifically, columns H & V of "Inflow vs Outflow" and columns I & K of "Without Parr Influence", from the Peaking Flows.xlsx file distributed on CD).

The graphs can be accessed here: <https://capellett.shinyapps.io/ParrDataViewer/>

The first graph is inflow and outflow at the reservoir. The second graph is at the Congaree gage downstream (estimated natural flow without Parr influence compared to gaged flow).

** With the following, minor, edits: 1) any hour missing data for the Congaree gage was removed from the other datasets as well (73 hours). 2) The hour after the start of daylight savings time (2 am in early March) each year was removed (6 hours). Why was this necessary? I blame the Windows Operating System... I doubt this will effect interpretation of the graphs, just bringing it up for the sake of completeness and clarity.*

Cheers

C. Alex Pellett

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From: Kelly Kirven [<mailto:Kelly.Kirven@KleinschmidtGroup.com>]

Sent: Friday, January 22, 2016 2:46 PM

To: Alex Pellett <PellettC@dnr.sc.gov>; Alison Jakupca <Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; Bill Marshall <MarshallB@dnr.sc.gov>; Bill Stangler (CRK@congareriverkeeper.org) <CRK@congareriverkeeper.org>; BRESNAHAN, AMY

<Amy.Bresnahan@scana.com>; Byron Hamstead (Byron_hamstead@fws.gov)
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Beard <BeardH@dnr.sc.gov>; Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; Jay Maher
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Stroud <StroudR@dnr.sc.gov>; Ron Ahle <AhleR@dnr.sc.gov>; Sam Stokes Jr.
<SamStokesJr@dnr.sc.gov>; Shane Boring <Shane.Boring@KleinschmidtGroup.com>; Steve Summer
<ssummer@scana.com>; STUTTS, BRANDON G <BSTUTTS@scana.com>; Tom McCoy
(thomas_mccoy@fws.gov) <thomas_mccoy@fws.gov>

Subject: FW: Monticello/Parr Aerial Waterfowl Survey Summary 1-19-16

Attached is the correct waterfowl survey summary. Please disregard the previous attachment.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

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From: Kelly Kirven

Sent: Friday, January 22, 2016 2:37 PM

To: Alex Pellett (PellettC@dnr.sc.gov) <PellettC@dnr.sc.gov>; Alison Jakupca
<Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>;
Bill Marshall (marshallb@dnr.sc.gov) <marshallb@dnr.sc.gov>; Bill Stangler
(CRK@congareriverkeeper.org) <CRK@congareriverkeeper.org>; BRESNAHAN, AMY
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<Byron_hamstead@fws.gov>; Caleb Gaston (caleb.gaston@scana.com) <caleb.gaston@scana.com>;
Chad Altman (altmankc@dhec.sc.gov) <altmankc@dhec.sc.gov>; Dick Christie (christied@dnr.sc.gov)
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BRANDON G <BSTUTTS@scana.com>; Tom McCoy (thomas_mccoy@fws.gov)
<thomas_mccoy@fws.gov>

Subject: Monticello/Parr Aerial Waterfowl Survey Summary 1-19-16

Good afternoon,

Attached is a summary of the aerial waterfowl survey that was conducted at Monticello and Parr reservoirs by the Savannah River Ecology Laboratory (SREL) on January 19, 2016. The next survey will be conducted in early February, and a summary will be sent out soon after.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

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From: [Dick Christie](#)
To: [Kelly Kirven](#)
Cc: [Bill Marshall](#)
Date: Tuesday, January 26, 2016 10:26:37 AM
Attachments: [Draft American Eel Abundance Report 121715dcedits.docx](#)

Hi Kelly - thanks for allowing us to review this draft report. The majority of our edits, attached, are offered in an attempt to clarify the discussion.

Dick Christie

SCDNR

1771 Highway 521 bypass S.

Lancaster, SC 29720

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From: [Alison Jakupca](#)
To: [Bob Perry](#); [Bill Marshall](#); [Dick Christie](#); [Willie Simmons](#); [Billy Dukes](#); brockH@dnr.sc.gov; [Sam Stokes Jr.](#); Coates.J@dnr.sc.gov; BranhamW@dnr.sc.gov; arnolde@dnr.sc.gov
Cc: [Tommy Boozer](#); [COLLINS, SCOTT E](#); [Henry Mealing](#); rammarell@scana.com; [RANDOLPH MAHAN](#); [Bill Argentieri](#) (bargentieri@Scana.com); [Kelly Kirven](#); gene.delk@scana.com
Subject: Parr Hydroelectric Project December 8th Meeting Notes
Date: Thursday, January 28, 2016 3:53:58 PM
Attachments: [final_120815_SCDNR_meeting_notes_1-28.doc](#)

Good Afternoon All,

Yesterday, Bill Marshall provided me with a few clarifications to the meeting notes from our December 8th Meeting. I have attached revised meeting notes to this email. These notes are in final form, however if you have any additional edits or clarifications, please do not hesitate to provide them to me. I would like to get them finalized by next Thursday, February 4th if possible.

In summary I have made the following changes to clarify the notes based on SCDNR's comments:

- Deleted the second bullet under: Discussion Points – Monticello Reservoir which previously stated: “SCDNR said that currently, Monticello Reservoir is not listed as a WMA.”
- Modified the third bullet under Discussion Points – Monticello Reservoir to read: “The water and islands of Monticello Reservoir, up to the high water mark, are currently classified as WMA. This WMA allows for waterfowl hunting only, during appropriate seasons. Hunters will be allowed access to the shoreline to perform tasks such as retrieving downed birds.”
- Modified the fourth bullet under Discussion Points – Monticello Reservoir to read: “The group agreed that the Recreation Lake should be classified as an SCDNR Wildlife Sanctuary. This would allow SCDNR law enforcement to enforce the “no hunting” designation. “

Thanks, and please let me know if you have any additional edits by next Thursday. Take care,
Alison

Alison Jakupca
Regulatory Coordinator
Kleinschmidt Associates
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From: [Dick Christie](#)
To: [Kelly Kirven](#)
Cc: [Bill Marshall](#); [Bill Post](#); [Ron Ahle](#); [Chad Holbrook](#)
Subject: FW: draft American Eel Abundance Report
Date: Monday, February 01, 2016 11:48:28 AM
Attachments: [American eel data from 5 year Lower Broad River Study.xlsx](#)

Hi Kelly - attached are Ron's data for American eel (yellow) collected in the Broad River. I think we could conclude 1) that the abundance of yellow American eels at Parr appears to be pretty low (CPUE = 3.5/h of electrofishing), but populations appear to be higher than the data presented in the report would indicate; 2) boat electrofishing appeared to be more effective at capturing yellow eels than either the elver trap, the the fyke net, or the backpack electrofisher. Let me know if you have any questions.

From: [Bill Marshall](#)
To: [Kelly Kirven](#)
Cc: [Dick Christie](#); [Byron Hamstead](#)
Subject: RE: draft Monticello Mussel Report
Date: Friday, February 05, 2016 5:27:31 PM

Hi Kelly,

Here, below, I have some additional information that needs to be included in the Monticello mussel report.

Three of the mussel species found in Monticello reservoir, the Carolina Creekshell, Carolina Lance, and Eastern Creekshell, are described in the mussel report as having some status of conservation concern. This is noted with references in report sections 6.6, 6.1 and 6.5 respectively. In addition to what's referenced in the mussel report, there is the 2015 South Carolina State Wildlife Action Plan (SWAP), which also reports these as species of concern. The SWAP lists and ranks "species of greatest conservation need" and these mussels rank as follows:

Carolina Creekshell – highest priority

Carolina Lance – moderate priority

Eastern Creekshell – moderate priority

Here are related links to the 2015 SWAP:

<http://dnr.sc.gov/swap/index.html>

<http://dnr.sc.gov/swap/main/chapter2-prioritiespecies.pdf>

Let me know if you have questions.

Thanks,

Bill Marshall

SCDNR

From: Kelly Kirven [mailto:Kelly.Kirven@KleinschmidtGroup.com]

Sent: Thursday, January 21, 2016 10:25 AM

To: Alison Jakupca ; ARGENTIERI, WILLIAM R ; Bill Marshall ; Bill Stangler

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; Caleb Gaston (caleb.gaston@scana.com) ; Chad Altman (altmankc@dhec.sc.gov) ; David Eargle

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Lorianne Rigglin ; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com) ; randy

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Boring ; Steve Summer ; STUTTS, BRANDON G ; Tom McCoy (thomas_mccoy@fws.gov)

Subject: draft Monticello Mussel Report

All,

Attached for your review is the draft Monticello Mussel Report. Please provide any comments or edits to this report by Friday, February 5th. We will discuss this report at the upcoming RTE TWC meeting (date TBD).

Please note that the Word version is included for comment and the PDF version is included because it has site photos in Appendix B.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

The logo for Kleinschmidt, featuring the name in a stylized blue font with a green underline.

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From: [Bill Marshall](#)
To: [Kelly Kirven](#)
Subject: Parr Project RTE Species Desktop Assessment
Date: Thursday, March 17, 2016 4:07:47 PM
Attachments: [Final Parr RTE Desktop Assessment 12-7-15 \(Marshall edits\).pdf](#)

Hi Kelly,

In follow-up to our last meeting, I've added comments to the attached PDF suggesting edits on 4 pages. My suggested edits mainly address text where the reference to 2015 SWAP can replace the 2005 CWCS. I also thought it made sense to add the State Priority Levels to the table of bird species in Section 4.5.

To find my comments, look for yellow comment clouds on the follow pages -- PDF pages 10, 36, 47, and 67.

Let me know if you have questions.

Thanks,

Bill

From: [Bill Marshall](#)
To: [Kelly Kirven](#)
Subject: RE: Parr-Fairfield Operations Modeling System - Addendum 2
Date: Friday, April 08, 2016 10:45:14 AM

Hi Kelly,

This addendum-2 report seems clear.

We are wondering if graphs are available to describe the historic and future load scenarios, and perhaps such graphs could be added to the report. This is just a suggestion.

Thanks,

Bill

From: Kelly Kirven [mailto:Kelly.Kirven@KleinschmidtGroup.com]

Sent: Friday, March 25, 2016 7:17 AM

To: Alex Pellett ; Alison Jakupca ; ARGENTIERI, WILLIAM R ; Bill Marshall ; Bill Stangler (CRK@congareriverkeeper.org) ; BRESNAHAN, AMY ; Bret Hoffman ; Bruce Halverson ; Dick Christie (dchristie@comporium.net) ; Frank_Henning@nps.gov; Gerritt Jobsis (gjobsis@americanrivers.org) ; Greg Mixon ; Henry Mealing ; J. Hagood Hamilton Jr. (jhamilton@scana.com) ; Jay Maher ; Joe Wojcicki ; Karen Swank Kustafik (kakustafik@columbiasc.net) ; Kelly Kirven ; Lorianne Rigglin ; Malcolm Leaphart (mwleapjr@att.net) ; Pace Wilber (Pace.Wilber@noaa.gov) ; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com) ; randy mahan (rmahan@sc.rr.com) ; Scott Harder ; Steve Summer ; STUTTS, BRANDON G ; Tom McCoy (thomas_mccoy@fws.gov) ; Wayne and Ginny Boland (wayneboland@bellsouth.net)

Subject: Parr-Fairfield Operations Modeling System - Addendum 2

Good morning,

Attached is the Parr-Fairfield Operations Modeling System – Addendum 2. Please review and let me know of any comments or edits you may have by Friday, April 8th.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

The logo for Kleinschmidt, featuring the word "Kleinschmidt" in a stylized blue font with a green underline.

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From: [Bill Marshall](#)
To: [Kelly Kirven](#); [Alex Pellett](#); [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Stangler \(CRK@congareriverkeeper.org\)](#); [BRESNAHAN, AMY](#); [btrump@scana.com](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Charlene Coleman \(cheetahtk@yahoo.com\)](#); [Chuck Hightower \(hightocw@dhec.sc.gov\)](#); [Dick Christie \(dchristie@comporium.net\)](#); [Edye Joyner](#); [Erich Miarka \(erich.miarka@gillscreekwatershed.org\)](#); [Frank_Henning@nps.gov](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [Greg Mixon](#); [Henry Mealing](#); [J. Hagood Hamilton Jr. \(jhamilton@scana.com\)](#); [Jaclyn Daly \(Jaclyn.Daly@noaa.gov\)](#); [Jay Maher](#); [Jeff Carter \(jmcarter00@sc.rr.com\)](#); [Joe Wojcicki](#); [John Fantry \(jfantry@bellsouth.net\)](#); [Jon Durham \(jondurham@bellsouth.net\)](#); [Karen Swank Kustafik \(kakustafik@columbiasc.net\)](#); [Lorianne Riggins](#); [Malcolm Leaphart \(mwleapjr@att.net\)](#); [Mark Davis](#); [Merrill McGregor \(merrillm@scccl.org\)](#); [Pace Wilber \(Pace.Wilber@noaa.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud](#); [Rusty Wenerick \(weneriwr@dhec.sc.gov\)](#); [Scott Collins \(secollins@scana.com\)](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [tboozier@scana.com](#); [Wayne and Ginny Boland \(wayneboland@bellsouth.net\)](#); [William Hendrix \(HendrixWB@dot.state.sc.us\)](#)
Subject: RE: draft Downstream Navigational Flow Assessment
Date: Thursday, April 14, 2016 3:15:37 PM

Hi Kelly, I have a few comments to offer.

I think the Navigational Flow Assessment provides useful information, and DNR staff will want to consider these results in combination with the Instream Flow Study findings as we further evaluate future flow needs below Parr hydro.

In addition, I think this navigational flow assessment at the two ledges may not capture the more complicated navigational obstruction presented in shoal complexes such as those in the upper Bookman Island complex, particularly the shoals just upstream of Hickory Island (see attached image). I'd be interested in seeing how the Instream Flow Study data collected for Study Site 10 (Bookman Island Complex, 2D data collection) might help us to evaluate navigational flow conditions for that area. Please let us know if those other data might be useful to further evaluating the navigation issues.

Thank you,
Bill Marshall
SCDNR
803-734-9096

From: Kelly Kirven [mailto:Kelly.Kirven@KleinschmidtGroup.com]

Sent: Friday, April 01, 2016 10:37 AM

To: Alex Pellett ; Alison Jakupca ; ARGENTIERI, WILLIAM R ; Bill Marshall ; Bill Stangler (CRK@congareriverkeeper.org) ; BRESNAHAN, AMY ; btrump@scana.com; Caleb Gaston (caleb.gaston@scana.com) ; Charlene Coleman (cheetahtk@yahoo.com) ; Chuck Hightower (hightocw@dhec.sc.gov) ; Dick Christie (dchristie@comporium.net) ; Edye Joyner ; Erich Miarka (erich.miarka@gillscreekwatershed.org) ; Frank_Henning@nps.gov; Gerrit Jobsis (gjobsis@americanrivers.org) ; Greg Mixon ; Henry Mealing ; J. Hagood Hamilton Jr. (jhamilton@scana.com) ; Jaclyn Daly (Jaclyn.Daly@noaa.gov) ; Jay Maher ; Jeff Carter (jmcarter00@sc.rr.com) ; Joe Wojcicki ; John Fantry (jfantry@bellsouth.net) ; Jon Durham (jondurham@bellsouth.net) ; Karen Swank Kustafik (kakustafik@columbiasc.net) ; Kelly Kirven ; Lorianne Riggins ; Malcolm Leaphart (mwleapjr@att.net) ; Mark Davis ; Merrill McGregor (merrillm@scccl.org) ; Pace Wilber (Pace.Wilber@noaa.gov) ; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com) ; randy mahan (rmahan@sc.rr.com) ; Robert Stroud ; Rusty Wenerick (weneriwr@dhec.sc.gov) ; Scott Collins (secollins@scana.com) ; Steve Summer ; STUTTS, BRANDON G ; tboozier@scana.com; Wayne and Ginny Boland (wayneboland@bellsouth.net) ; William Hendrix (HendrixWB@dot.state.sc.us)

Subject: draft Downstream Navigational Flow Assessment

Good morning,

Attached is the draft Downstream Navigational Flow Assessment. Please review and submit any comments or edits by Friday, April 15th. We will discuss this document at the upcoming Recreation TWC meeting, to be scheduled for some time in May.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

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From: [Dick Christie](#)
To: [Henry Mealing](#); [Bill Marshall](#)
Cc: [Bill Argentieri - SCE&G \(BArgentieri@scana.com\)](#); [RAYMOND R AMMARELL \(RAMMARELL@scana.com\)](#); [Kelly Kirven](#); [Jordan Johnson](#)
Subject: RE: Parr Shoals nvigation study questions
Date: Wednesday, March 08, 2017 4:41:22 PM

Thanks, Henry - this is very helpful.

From: Henry Mealing [<mailto:Henry.Mealing@KleinschmidtGroup.com>]
Sent: Wednesday, March 08, 2017 4:39 PM
To: Dick Christie; Bill Marshall
Cc: Bill Argentieri - SCE&G (BArgentieri@scana.com); RAYMOND R AMMARELL (RAMMARELL@scana.com); Kelly Kirven; Jordan Johnson
Subject: RE: Parr Shoals nvigation study questions

Dick,

We went ahead and calculated the distance at 800 and 900 cfs for the Ledge 2 navigation transect. See attached file.

Henry

From: Dick Christie [<mailto:ChristieD@dnr.sc.gov>]
Sent: Thursday, February 23, 2017 3:09 PM
To: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>
Subject: RE: Parr Shoals nvigation study questions

Hi Henry - what took you so long? Just kidding. Assuming we would like to meet 100 of the navigation flow at ledge 2, we are trying to determine what flow would have to be released at the dam to do that. Alex is looking into the contribution from the watershed downstream of Parr Reservoir and the tributaries - which we know won't add a whole lot, but may get us under 1,000 at the dam. And the 700 flow appears to meet the 1' criteria for 66.1 of 80 feet (82%), which is not too bad. How much trouble would it be to calculate the blocks for a 800 cfs flow?

Thanks.

From: Henry Mealing [<mailto:Henry.Mealing@KleinschmidtGroup.com>]
Sent: Thursday, February 23, 2017 1:52 PM
To: Dick Christie; Bill Marshall
Cc: Bill Argentieri - SCE&G (BArgentieri@scana.com); RAYMOND R AMMARELL (RAMMARELL@scana.com); Jordan Johnson; Kelly Kirven; Alison Jakupca
Subject: FW: Parr Shoals nvigation study questions

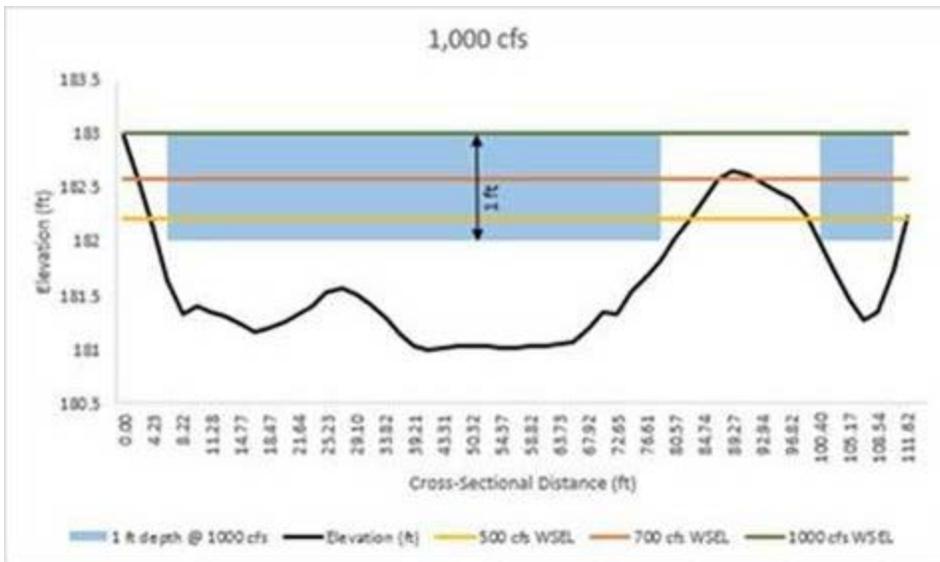
Dick and Bill,

Question 1. The bathymetry data for the 3-D plots of the navigation area were collected with an ADCP unit at a flow of approximately 6,500 cfs. The flow and Water Surface Elevation (WSEL) was measured at each collection site during collections. The way we determined the WSEL for the 1,000, 700, and 500 cfs is from the Level Logger discharge relationship that we developed during the IFIM study. We positioned a Level Logger at each of the navigation transects early in the study just to answer that question. We selected the 1,000, 700, and 500 WSELs for our analysis because we had really good data (accuracy and frequency) for those data points and we didn't need to go any higher to meet the passage guidelines.

This is one of the reasons that we included a field observation for those two navigation constrictions built into the study. Just to verify that all our calculations we giving us what we expected.

Question 2: The exact distances across the transect that is 12 inches deep by "block" (Block A on the left – Block B on the right) and total width added together are as follows:

	Block A	Block B	Total
Flow 1,000 cfs:	72.32 ft	9.67 ft	81.99 ft
Flow 700 cfs:	66.21 ft	0.0	66.21 ft
Flow 500 cfs:	31.69 ft	0.0	31.69 ft



Please let me know if this does not answer your questions adequately or if you want to talk through any specifics.

Henry

From: Dick Christie [<mailto:ChristieD@dnr.sc.gov>]
Sent: Thursday, February 23, 2017 11:55 AM
To: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>
Cc: Bill Marshall <MarshallB@dnr.sc.gov>
Subject: Parr Shoals nvigation study questions

Hi Henry - hope you are doing well. I have a couple of questions regarding the navigation flow study conducted for the Parr Shoals relicensing. First, my understanding is the flows that were evaluated (500, 700, and 1000 cfs) at the two sites represent flows at those sites and not from the dam; and 2) based on Figure 4 (the graph for ledge 2 at 500 cfs), it appears that a flow of 700 cfs would provide at least 12 inches of water depth for much of the channel width - can you determine how much?

Thanks.

Dick Christie
SCDNR
1771 Highway 521 bypass S.
Lancaster, SC 29720
(803)609-7014

From: [Bill Marshall](#)
To: [Bill Argentieri](#); [Henry Mealing](#); [Kelly Kirven](#)
Subject: DNR notes for March 28-30 PME meetings - Parr Relicensing
Date: Tuesday, April 04, 2017 6:30:02 PM
Attachments: [DNR PMEs recommended at March 28-30 mtgs Parr\(2\).docx](#)

Bill, Henry and Kelly,

I am attaching some notes which are intended to help clarify DNR comments and recommendations made during the March 28 and 30 meetings to address the agenda item "other PME measures (not previously proposed)".

I hope these notes will be useful to compiling the meeting summary. Let us know if you have questions. Thanks.

Bill Marshall

From: [Bill Marshall](#)
To: [Henry Mealing](#); [Kelly Kirven](#)
Cc: [Ron Ahle](#); [Dick Christie](#)
Subject: RE: West Channel Grid
Date: Thursday, April 27, 2017 2:16:42 PM
Attachments: [Grid for West Channel \(final w sticky note\).pdf](#)
[MEMO on West Channel Grid.doc](#)

Henry and Kelly,

As follow-up to an action item from previous Parr Hydro TWC meetings, please see the attached grid map and associated memo of explanation from Ron. This presents a stratified random sampling grid for monitoring water quality conditions in the west channel and is proposed for inclusion in the West Channel AMP.

Let us know if you have questions.

Bill Marshall
SCDNR
803-734-9096

From: Ron Ahle
Sent: Thursday, April 27, 2017 12:35 PM
To: Bill Marshall <MarshallB@dnr.sc.gov>
Cc: Dick Christie <ChristieD@dnr.sc.gov>
Subject: West Channel Grid

Hi Bill,

Attached is the long awaited West Channel Grid that I agreed to provide the Fish and Wildlife TWC. Take a look at it and if you have no issues please pass it on to Kleinschmidt.

Thanks,

Ron

Ronald C. Ahle
Freshwater Fisheries Biologist
South Carolina Department of Natural Resources
2726 Fish Hatchery Road
W. Columbia, SC 29172
Bus: (803)-755-9345
Email:Ahler@dnr.sc.gov

From: [LeMaster, Elizabeth -FS](#)
To: [Kelly Miller](#)
Subject: RE: Parr Waterfowl Hunter Surveys
Date: Friday, July 10, 2015 5:38:43 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Hi Kelly – I just realized that I never sent you guys a letter saying that we had met and were involved in the process...

Do you still want/need such a letter from the USFS?

Beth



Beth LeMaster
District Ranger
Forest Service
Sumter National Forest, Enoree Ranger District

p: 803-276-4810
elemaster@fs.fed.us

20 Work Center Road
Whitmire, SC 29178

www.fs.fed.us



Caring for the land and serving people

From: Kelly Miller [mailto:Kelly.Miller@KleinschmidtGroup.com]

Sent: Tuesday, July 07, 2015 9:05 AM

To: LeMaster, Elizabeth -FS

Cc: Evans, Christopher -FS

Subject: Parr Waterfowl Hunter Surveys

Importance: High

Hi Beth,

I just wanted to let you know that after further discussion with SCDNR, they have agreed to include question 2 on the Enoree River Waterfowl Survey. We will be removing question 4 however.

If the USFS has any additional edits or comments on the surveys, please send these in by Friday, July 17th. We want to finalize the surveys in the next few weeks so that we can focus on our distribution methods prior to the start of waterfowl hunting season.

Thanks!

Kelly

Kelly Miller
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Hamstead, Byron](#)
To: [Shane Boring](#); [Henry Mealing](#)
Cc: [Alison Jakupca](#); [BARGENTIERI@scana.com](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [Byron Hamstead \(Byron_hamstead@fws.gov\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [Dick Christie \(christied@dnr.sc.gov\)](#); [Fritz Rohde \(Fritz.Rohde@noaa.gov\)](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Hal Beard \(BeardH@dnr.sc.gov\)](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Karla Reece \(Karla.Reece@noaa.gov\)](#); [Kelly Miller](#); [QUATTLEBAUM, MILTON](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Robert Stroud \(StroudR@dnr.sc.gov\)](#); [Ron Ahle](#); [Sam Stokes \(stokess@dnr.sc.gov\)](#); [Steve Summer](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#)
Subject: Parr Entrainment/Mortality Study Hold Point 3
Date: Tuesday, January 06, 2015 7:07:58 AM
Attachments: [20150105_Parr Entrainment Hold Point 3 USFWS Comments.docx](#)

Shane and Henry,

I regret that I cannot attend today's scheduled conference call. Apologies for the short notice. Attached are my comments and questions.

Thank you,
Byron

Byron Hamstead
Fish and Wildlife Biologist
USFWS Charleston Field Office
176 Croghan Spur Rd., Suite 200
Charleston, SC, 29407

843-727-4707 ext. 205

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From: [Hamstead, Byron](#)
To: [Henry Mealing](#)
Cc: [ARGENTIERI, WILLIAM R](#); [Shane Boring](#); [Kelly Miller](#)
Subject: Re: Delivery delayed:County Species List
Date: Tuesday, September 01, 2015 7:19:27 AM
Attachments: [image001.png](#)

Apologies Henry. I included the Union County list b/c the PBL includes the confluence of the Broad and Enoree Rivers. I mistook the Union county line to extend down to the Enoree-Broad River confluence.

Byron

Byron Hamstead
Fish and Wildlife Biologist
USFWS Charleston Field Office
176 Croghan Spur Rd., Suite 200
Charleston, SC, 29407

843-727-4707 ext. 205

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On Mon, Aug 31, 2015 at 7:14 PM, Henry Mealing
<Henry.Mealing@kleinschmidtgroup.com> wrote:

Byron,

I took a closer look at all of the items you sent me and I noticed that you included Union County as one of the counties in the project influence. The project doesn't touch Union County and we will remove any species from the list that are associated with that specific county list. The major inclusions of species to evaluate are the At Risk Species (ARS). We will add an additional section to cover these species including a short write up – known presence within the PBL – if the project will affect the species.

Thanks again for the complete list. We will get started on this right away.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane

Suite 301

Lexington, SC 29072

706-339-3209

www.KleinschmidtGroup.com

From: Hamstead, Byron [mailto:byron_hamstead@fws.gov]
Sent: Monday, August 24, 2015 10:05 AM
To: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>
Cc: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>
Subject: Re: Delivery delayed:County Species List

Hi Bill,

Per Henry's request, attached is a .xlsx list of federal priority species that may be impacted by the Parr Project. These species were pulled from the USFWS's county lists (Union, Fairfield, Newberry, and Richland Counties), Birds of Conservation Concern (2008) for Bird Conservation Region 29 (Table 27), and our July 9, 2014 proposal to include two mussels for consideration by the RT&E TWC. County lists and other reference documents are attached for your records. Please let me know if you have any questions.

Thanks,

Byron

Byron Hamstead

Fish and Wildlife Biologist

USFWS Charleston Field Office

176 Croghan Spur Rd., Suite 200

Charleston, SC, 29407

843-727-4707 ext. 205

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On Mon, Jun 29, 2015 at 1:08 PM, ARGENTIERI, WILLIAM R
<BARGENTIERI@scana.com> wrote:

Done

His new email address is Henry.Mealing@KleinschmidtGroup.com.

From: Thomas McCoy [mailto:thomas_mccoy@fws.gov]

Sent: Friday, June 26, 2015 3:13 PM

To: ARGENTIERI, WILLIAM R

Subject: FW: Delivery delayed:County Species List

*****This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.**

Hi Bill,

??

Can you send to Henry the species list?

It bounced back.

Tom

??

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??

From: Microsoft Outlook [mailto:postmaster@doi.gov]
Sent: Friday, June 26, 2015 2:55 PM
To: thomas_mccoy@fws.gov
Subject: Delivery delayed:County Species List

??

Delivery is delayed to these recipients or groups:

[Henry Mealing \(HMealing@kassociates.com\)](mailto:HMealing@kassociates.com)

Subject: County Species List

This message hasn't been delivered yet. Delivery will continue to be attempted.

The server will keep trying to deliver this message for the next 1 days, 19 hours and 55 minutes. You'll be notified if the message can't be delivered by that time.

From: [Hamstead, Byron](#)
To: [Kelly Kirven](#)
Cc: [Alison Jakupca](#); [ARGENTIERI, WILLIAM R](#); [Bill Marshall \(marshallb@dnr.sc.gov\)](#); [Bill Stangler \(CRK@congariverkeeper.org\)](#); [BRESNAHAN, AMY](#); [Caleb Gaston \(caleb.gaston@scana.com\)](#); [Chad Altman \(altmankc@dhec.sc.gov\)](#); [David Eargle \(eargleda@dhec.sc.gov\)](#); [Gerrit Jobsis \(gjobsis@americanrivers.org\)](#); [Greg Mixon \(mixong@dnr.sc.gov\)](#); [Henry Mealing](#); [Jay Maher](#); [Jim Glover \(gloverjb@dhec.sc.gov\)](#); [Karla Reece \(Karla.Reece@noaa.gov\)](#); [Lorianne Riggin \(RigginL@dnr.sc.gov\)](#); [rammarell@scana.com](#); [Randy Mahan \(randolph.mahan@scana.com\)](#); [randy mahan \(rmahan@sc.rr.com\)](#); [Sam Stokes \(stokess@dnr.sc.gov\)](#); [Scott Castleberry \(castlews@dhec.sc.gov\)](#); [Shane Boring](#); [Steve Summer](#); [STUTTS, BRANDON G](#); [Tom McCoy \(thomas_mccoy@fws.gov\)](#); [Morgan Wolf](#)
Subject: Re: draft Broad River Spiny Crayfish Report
Date: Wednesday, January 06, 2016 8:36:16 AM
Attachments: [201407XX_ Identification and Distribution of Crayfishes in South Carolina.pdf](#)
[Broad River Spiny Crayfish Report-Draft_Hamstead Comments_20160106.docx](#)

Hi Kelly,

Just a few comments on this one in tracked changes. Also attached is Arnie's 2014 Crayfish report/atlas.

Thanks,
Byron

Byron Hamstead
Fish and Wildlife Biologist
USFWS Asheville Field Office
160 Zillicoa St., Suite B
Asheville, NC, 28801

828-258-3939 ext. 225

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On Mon, Dec 14, 2015 at 10:24 AM, Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com> wrote:

All,

Attached is the draft Broad River Spiny Crayfish Report. Please review and submit any comments or edits by Monday, December 28th. Please note that Appendix A will be included with the final report.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

www.KleinschmidtGroup.com

From: [Thomas McCoy](#)
To: [ARGENTIERI, WILLIAM R](#)
Cc: [Kelly Kirven](#); [Henry Mealing](#)
Subject: RE: American Eel Collections downstream of Parr Dam Final Report 2016
Date: Thursday, February 04, 2016 10:51:43 AM
Attachments: [image001.png](#)
[image002.png](#)

Bill,

Believe me....I am not the American eel expert, but I wonder if we need another year or not, due to the flooding. However, looking at the data from SCDNR, it appears that they are not moving further than Columbia, so I am torn between yes for another year due to the flooding and no due to the five years of data. This is my opinion. In some regards, I think we might not need any more survey work, but defer to our discussion in March with SCDNR and NFMS. You are correct, it could be worked out in the PM&E measures.

Please let me know if I can provide any further assistance.

Tom

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From: ARGENTIERI, WILLIAM R [mailto:BARGENTIERI@scana.com]
Sent: Thursday, February 04, 2016 10:21 AM
To: 'Thomas McCoy'
Cc: Kelly Kirven; Henry Mealing
Subject: RE: American Eel Collections downstream of Parr Dam Final Report 2016

Tom,

Thanks for the comments. KA will incorporate your requested editorial changes. I was curious as to whether you are requesting a second year of eel studies as part of the Accord or as part of our Parr Relicensing. Both study plans were for one year. As far as Parr Relicensing, we need to move forward and start working toward PM&E measures for the draft license application. If the Accord wants to do another year of studies, someone will need to submit a new study plan through the TC and get Board approval.

What are your thoughts?

Bill

From: Thomas McCoy [mailto:Thomas_McCoy@fws.gov]
Sent: Thursday, February 04, 2016 9:07 AM
To: Henry Mealing <Henry.Mealing@kleinschmidtgroup.com>
Cc: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com>

Subject: RE: American Eel Collections downstream of Parr Dam Final Report 2016

***This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Henry,

Attached are my comments for your review. I am not sure if we need to have more time in the water for the AMEL or not – I would defer to the experts on that comment and whether or not AMEL make it to Parr or not.

Please let me know if I can provide any further assistance.

Tom

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From: Henry Mealing [mailto:Henry.Mealing@KleinschmidtGroup.com]

Sent: Thursday, February 04, 2016 8:23 AM

To: Thomas McCoy

Cc: Bill Argentieri - SCE&G (BArgentieri@scana.com); Kelly Kirven

Subject: RE: American Eel Collections downstream of Parr Dam Final Report 2016

Tom,

Thanks for your question – let me give a little clarification. We sent the draft out to the Parr Relicense Team in December 2015. SCDNR requested a time extension on comments until the end of January 2016. We agreed with that and SCDNR sent us their comments on the draft report the 3rd week of January. We never received comments from any other Relicense stakeholder and thought that was it. We incorporated all of the SCDNR comments into the file I just sent to you for the ACCORD.

This may have been a report that slipped by USFWS review during Bryon’s transition and Christmas. Of course we would be interested to see your comments on the report as the USFWS for relicensing of the Parr Project – and as part of the ACCORD. I don’t know if they will be different for one versus the other – but let us know if there is a difference.

Thanks again and please give me a call if we need to discuss further.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane

Suite 301

Lexington, SC 29072

706-339-3209

www.KleinschmidtGroup.com



From: Thomas McCoy [mailto:Thomas_McCoy@fws.gov]

Sent: Thursday, February 04, 2016 7:39 AM

To: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>

Subject: RE: American Eel Collections downstream of Parr Dam Final Report 2016

Henry,

Do you want our comments now or wait until the meeting next month?

Please let me know if I can provide any further assistance.

Tom

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From: Henry Mealing [mailto:Henry.Mealing@KleinschmidtGroup.com]

Sent: Wednesday, February 03, 2016 8:16 PM

To: Bill Argentieri - SCE&G (BAgentieri@scana.com); Tom McCoy (thomas_mccoy@fws.gov)

Cc: Jared Porter; Kelly Kirven; Shane Boring; Alison Jakupca

Subject: American Eel Collections downstream of Parr Dam Final Report 2016

Bill and Tom,

Attached is the final report of American eel surveys downstream of Parr Shoals Dam. Please let me know if you have any questions.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane

Suite 301

Lexington, SC 29072

706-339-3209

www.KleinschmidtGroup.com



From: [Thomas McCoy](#)
To: [Kelly Kirven](#)
Subject: RE: Final WQFW RCG Meeting Notes
Date: Wednesday, March 02, 2016 6:35:14 AM
Attachments: [Final Parr RTE Desktop Assessment 12-7-15TDMedits.pdf](#)

Hi Kelly,

Attached are my edits for the Desktop Assessment for your review.

Please let me know if I can provide any further assistance.

Tom

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-----Original Message-----

From: Kelly Kirven [<mailto:Kelly.Kirven@KleinschmidtGroup.com>]
Sent: Tuesday, March 01, 2016 1:40 PM
To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); Caleb Gaston (caleb.gaston@scana.com); Chad Altman (altmankc@dhec.sc.gov); Charlene Coleman (cheetahtk@yahoo.com); Chris Johnston (JohnstonWC@gmail.com); Chuck Hightower (hightocw@dhec.sc.gov); David Eargle (eargleda@dhec.sc.gov); Dick Christie (christied@dnr.sc.gov); Frank_Henning@nps.gov; Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon (mixong@dnr.sc.gov); Hal Beard (BeardH@dnr.sc.gov); Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jaclyn Daly (Jaclyn.Daly@noaa.gov); Jim Glover (gloverjb@dhec.sc.gov); Jon Durham (jondurham@bellsouth.net); Kelly Kirven; Lorianne Riggan (RigganL@dnr.sc.gov); Malcolm Leaphart (mwleapjr@att.net); Mark Caldwell (mark_caldwell@fws.gov); Mel Jenkins (greenpalmetto@yahoo.com); Pace Wilber (Pace.Wilber@noaa.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Ron Ahle; Rusty Wenerick (weneriwr@dhec.sc.gov); Sam Stokes (stokess@dnr.sc.gov); Scott Castleberry (castlews@dhec.sc.gov); Scott Harder; Shane Boring; Steve Summer; STUTTS, BRANDON G; Tom McCoy (thomas_mccoy@fws.gov); Wayne and Ginny Boland (wayneboland@bellsouth.net)
Subject: Final WQFW RCG Meeting Notes

All,

Attached for your record are the final meeting notes from the WQFW RCG meeting that was held on January 21, 2016. These notes will also be available on the project website at www.parrfairfieldrelicense.com<<http://www.parrfairfieldrelicense.com>>

Thanks,
Kelly

Kelly Miller Kirven
Regulatory Coordinator
[2012 Email Logo]
Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com<<http://www.kleinschmidtusa.com>>

From: [ARGENTIERI, WILLIAM R](#)
To: [Kelly Kirven](#)
Cc: [Henry Mealing](#)
Subject: Email from Tom McCoy regarding Reservoir Fluctuation Issue at Parr
Date: Monday, March 07, 2016 11:24:48 AM
Attachments: [Parr Shoals Question.msg](#)

Kelly,

Please add the comments and questions by Tom McCoy (see attached email) to the meeting notes for the reservoir fluctuation meeting held last Thursday.

Thanks,

William R. Argentieri

South Carolina Electric & Gas Company
Mail Code A221
220 Operation Way
Cayce, SC 29033-3701

(Physical Address)
100 SCANA Pkwy
Building A, Floor 2
Cayce, SC 29033-3712

Phone - (803) 217-9162
Fax - (803) 933-7849
Cell - (803) 331-0179

From: [Olds, Melanie](#)
To: [Kelly Kirven](#)
Subject: Re: Parr Relicensing - Draft PME Meeting Notes - March 28 and 30, 2017
Date: Monday, May 01, 2017 1:34:08 PM

Hi Kelly,

I have no comments on the notes. I am still working on providing more specifics on a mussel monitoring plan and should have that to you either by the end of this week or early next week.

Thanks,

Melanie

Melanie Olds | *Fish & Wildlife Biologist/FERC Coordinator*
U.S. Fish and Wildlife Service
South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
843-727-4707 ext. 205
843-727-4218 fax

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On Tue, Apr 25, 2017 at 1:32 PM, Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com> wrote:

Hi Melanie,

Absolutely – we completed a Mussel Study in Monticello Reservoir at the request of SCDHEC. Attached is the final report for that study.

We also completed a Desktop Baseline Macroinvertebrate and Mussel Study early in relicensing, just to document the macro and mussel population in the Project area using existing data. I have attached a copy of that report as well, in case you might want to see it.

Let me know if you need anything else. Thanks!

Kelly

Kelly Miller Kirven

Regulatory Coordinator



Office: 803.462.5633

Cell: 803.917.4528

www.KleinschmidtGroup.com

From: Olds, Melanie [mailto:melanie_old@fws.gov]

Sent: Tuesday, April 25, 2017 1:05 PM

To: Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com>

Subject: Re: Parr Relicensing - Draft PME Meeting Notes - March 28 and 30, 2017

Kelly,

I've been going through my files and I couldn't find the Final Mussel report for Monticello, I saw in the RT &E TWC meeting notes for March 1,2016 that a report was referenced. Can you please send me that report?

Thanks,

Melanie

Melanie Olds | *Fish & Wildlife Biologist/FERC Coordinator*

U.S. Fish and Wildlife Service

South Carolina Ecological Services Field Office

176 Croghan Spur Road, Suite 200

Charleston, SC 29407

843-727-4707 ext. 205

843-727-4218 fax

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On Thu, Apr 13, 2017 at 1:57 PM, Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com> wrote:

Good afternoon,

Attached are the draft notes from the PME meetings held on March 28th and 30th. Please review and pay particular attention to the action items listed at the end of the notes. We would like to have all comments on the notes and any additional information on new PME measures by **May 1st**, so that we can include this information in the DLA.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

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Cell: 803.917.4528

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SUBJECT	PAD COMMENT	RESPONSES
South Carolina Department of Natural Resources		
Reservoir Fluctuations	<p>DNR notes that the ranges of fluctuations presented in Section 3.4 and Appendix C, page 191, represent fluctuations between the maximum and minimum pool elevations which occur over the course of a year <i>and do not reflect normal daily fluctuations</i>. Actual reservoir fluctuations observed during the period of 1995-2013 for Parr Reservoir and 2005-2013 for Monticello Reservoir are presented in Appendix C on pages 622 through 629 (April 1, 2014 presentation for the Fisheries TWC). These data show that during the periods of record, daily operations have generally used only a portion of the available 29,000 acre/feet, and the resulting daily fluctuations are much less on average than described in Section 3.4. DNR recommends that information describing the daily fluctuations in both Parr and Monticello reservoirs be included in the License Application.</p>	<p>Reservoir fluctuations have been discussed during pre-PAD consultation via the Operations RCG, and SCE&G is open to continuing that discussion during relicensing. A reservoir fluctuation study is planned for the 2015 study season.</p> <p>Ray will pull together some information on why they asked for this in the current license and how it is used.</p> <p>Point out that the top 2 feet of the pool are used as temporary storage and that the pool is not refilled to the top of the spillway gates each day.</p> <p>The daily fluctuation occurs within the 10 foot band.</p> <p>SCE&G does not operate the spillway gates dynamically.</p>
Downstream Flows	<p>Appendix C, page 917 – A discussion between Kleinschmidt and DNR involving sturgeon populations on April 24, 2014, is presented. In that consultation, DNR staff noted that DNR would have concerns if Project operations impact flows downstream in the Congaree River during the spring spawning season. Kleinschmidt responded that impacts on flows in the Congaree as a result of project operations would be unlikely for a number of reasons.</p> <p>“Acknowledging that flow impacts to the Upper Congaree are unlikely, Kleinschmidt staff noted that level-loggers are being deployed throughout the reach of the Broad below the project and that an operations model is being developed to determine the extent of the downstream peaking “wave.” It was determined that, if</p>	<p>SCE&G agrees that we should discuss this issue additionally during relicensing. We plan to add this issue to the Fisheries TWC and discuss it initially during July/August 2015. We will use that discussion to identify the “next steps” for gathering additional information to better define the issue.</p>

	<p>operations modeling efforts suggest that water level/flow effects extend downstream of the Columbia Hydro Project, then there may be a need to reinitiate consultation regarding potential sturgeon impacts; otherwise, there are no concerns”. DNR notes that data collected since that meeting, and presented in the PAD (Figure on pages 352-354) clearly show effects that Project operations can have on the frequency, duration, and magnitude of peak flows downstream to the Congaree River. Since these flows may disrupt spawning diadromous fish, we recommend that DNR, USFWS and NMFS personnel be consulted to determine what additional information may be needed to assess those impacts.</p>	
Downstream Flows (flood flow)	<p>Section 3.7, page 3-11 – Article 39 requires that the project is operated such that releases from Parr Reservoir during flood flows shall be no greater than flows which would have occurred in the absence of the Project. The Article did not provide a definition for flood flows; however, in practice, SCE&G uses 40,000 cfs as the targeted flood flow to guide operational measures to comply with this Article. Assuming a similar article is incorporated in the new license, DNR sees a need for further discussion and evaluation of how Project operations effect downstream flows during high inflow events, and we think such evaluation should address inflows less than 40,000 cfs, and consider effects of flood flow alterations on diadromous fish.</p>	<p>SCE&G has discussed this issue during some of the RCG/TWC meetings prior to the start of relicensing. We will schedule an additional meeting with stakeholders to share information regarding the current flood operations included in the current license.</p>
Downstream Flows (flow statistics)	<p>Section 4.2.2, page 4-15 – The flow statistics presented in this section (Table 4-2) are limited to monthly flow data from the Alston gage. Annual and monthly flow duration curves are provided in Appendix A of the PAD (page 162). As the relicensing process proceeds, DNR suggests that it is essential to have an understanding of daily variability of flows to be able to evaluate Project effects on aquatic and related natural resources. As an example, we would note that the daily minimum and maximum flows from the Project in the selected period of record (1981-2013) have ranged from a low of 48 cfs, on September 12, 2002, to a high of 106,000 cfs on October 14, 1990 (USGS summary statistics for Station 02161000, Broad River at Alston).</p>	<p>Noted. SCE&G provided information required in the PAD. This is primarily in the form of flow duration curves and average flow data. We can provide additional instantaneous flow data that is identified by the SCDNR.</p>

Recreation Lands	Appendix C, page 225 – On page 2 of the minutes from the May 14, 2013, Recreation TWC meeting, SCE&G determines that some property within the Project Boundary (Lyne Tract) needs to be reclassified from future recreation to project operations. DNR suggests that 1) it may not be necessary to reclassify the entire 350 acres to Project Operations and other options should be considered, and 2) any lands that are removed from present or future recreational status should be replaced.	SCE&G agrees to discuss this additionally during relicensing in the Lake and Land Management RCG.
United States Fish and Wildlife Service		
Reservoir Fluctuations	Section 3.4: This section outlines a typical pumping cycle where active storage is transferred to and from Parr and Monticello Reservoirs. While the annual maximum for daily reservoir elevation fluctuation is reported to be 4.5 feet for Monticello and 10 feet for Parr, the Service contends that it is also important for the Commission to be aware of typical reservoir elevation fluctuation. According to reservoir elevation observation data from 1995-2013, the monthly mean for daily fluctuation for Parr ranges from 2.87 feet in February to 7.03 feet in August. Similarly, the elevation fluctuation for Monticello ranges from 1.49-feet in February to 3.40 feet in August (see consultation record in PAD for data presented at the Fisheries Technical Working Committee (TWC) meeting on April 1, 2014). These data suggest that the current environmental condition of the Project (e.g., reservoir shoreline stability, fish and mussel assemblages, downstream hydrology, etc.) are expressions of only a portion of the allowable operating range for the Project.	<p>Reservoir fluctuations have been discussed during pre-PAD consultation via the Operations RCG, and SCE&G is open to continuing that discussion during relicensing. A reservoir fluctuation study is planned for the 2015 study season.</p> <p>Ray will pull together some information on why they asked for this in the current license and how it is used.</p> <p>Point out that the top 2 feet of the pool are used as temporary storage and that the pool is not refilled to the top of the spillway gates each day.</p> <p>The daily fluctuation occurs within the 10 foot band.</p> <p>SCE&G does not operate the spillway gates dynamically.</p>
Downstream Flows	Section 3.4 and 4.2.2: Section 3.4 does not describe any daily or seasonal ramping rates. While section 4.2.2 summarizes monthly flow statistics for water years 1981-2013 at the USGS gage (02161000) below the Project on the Broad River, these data do not show daily and hourly streamflow fluctuations that occur in the Broad River below the Project. The Service contends that daily and	Noted. SCE&G provided information required in the PAD. This is primarily in the form of flow duration curves and average flow data. We can provide the additional daily/hourly flow data that is identified by the USFWS.

	<p>sub-daily streamflow fluctuations in the Broad River affect many aquatic resources and their habitats. Measuring streamflow fluctuation across broad timescales may mask trends that drive a biological phenomenon or environmental impact. Data reported and presented by American Rivers and the University of South Carolina at the Operations Resource Conservation Group (RCG) meeting on June 27, 2013, (see consultation record) show that stream flow pulses occur more frequently during higher baseflow conditions. Baseflow conditions are typically highest in the spring months (see Appendix A of PAD) during the spawning season for many resident and diadromous fishes and freshwater mussels. The Service believes that SCE&G's Final License Application and the Commission's environmental document should assess streamflow fluctuations on sufficiently small timescale to fully evaluate potential ecological impacts to priority natural resources.</p>	<p>SCE&G will work with the Fisheries TWC and the Project Operations RCG to provide information in the Final License Application that adequately describes project operations and potential impacts on the downstream aquatic community.</p> <p>We are performing an IFIM study downstream of the project to determine the potential influence of stream flow on target aquatic species. We are also preparing a project operations model that we can use to identify operations alternatives and their cost to SCE&G.</p>
Downstream Flows (flood flow)	<p>Section 3.7: License article 39 is the, "requirement to operate the Project reservoirs in such a manner that releases from the lower reservoir during flood flows shall be no greater than flows, which would have occurred in the absence of the Project." The Service agrees with SCDNR's assertion that there is a need to further discuss SCE&G's definition of a flood flow (40,000 cubic feet per second), and we support their request for additional information and/or consultation record regarding how this benchmark was established.</p>	<p>SCE&G has discussed this issue during some of the RCG/TWC meetings prior to the start of relicensing. We will include an additional meeting with stakeholders to share information regarding the current flood operations included in the current license (most likely with the Operations RCG).</p>
Water Quality	<p>Section 4.2.6: The South Carolina Department of Health and Environmental Control (SCDHEC) identifies several areas within both reservoirs and immediately downstream of the Project in which water quality conditions are impaired. Since these impairments impact use by aquatic life (Table 4-5), the Service is concerned and interested to know the measures being taken to recovery water quality.</p>	<p>All impairments listed by the SCDHEC on the 303(d) list are identified in the Baseline Water Quality Report, prepared by SCE&G. This list is also included in the PAD.</p> <p>Additionally, SCE&G has formed the Water Quality TWC to address water quality issues in the area of project influence. Through this TWC, a potential water quality issue was identified immediately below Parr Shoals Dam (occasional drops in DO below the state required standards).</p>

		We have been working with the SCDHEC to identify project operations that will provide assurance that the project will meet the state water quality standards consistently in the future. We will continue to share this information with all stakeholders during relicensing via the Water Quality TWC.
Fish and Wildlife (mussels)	Section 4.3.3: SCE&G staff informed the Service of potential freshwater mussel harvesting in the reservoirs. While this activity is permissible, the taking of freshwater mussels is unlawful without a permit from SCDNR. The Service wants to ensure that mussel harvesting activities are responsible, sustainable and enforced according to South Carolina law.	SCE&G has in the past and will continue to support the SCDNR's enforcement of state laws within the Project.
Fish Entrainment	Sections 4.3.6 and 4.3.7: Currently, no specific prevention, mitigation, or enhancement measures have been identified as a result of the Desktop Fish Entrainment Study Plan. However, the Service is open to a variety of outcomes consistent with our Mitigation Policy that aim to offset the ecological impact of fish and mussels entrained and killed by Project operations. Such measures may include, but are not limited to, modifying Project operations, fisheries stocking activities, and/or annual contributions to the Broad River Mitigation Trust Fund.	A desktop fish entrainment analysis is being performed as part of the Fisheries TWC. The final report should be completed during 2015 and SCE&G will work with the TWC to identify PM&E measures that will be considered as part of a Settlement Agreement.
Fish and Wildlife (avian resources)	Sections 4.4.2 and 4.6.1: Table 4-15 and the text that precedes it describe the avian resources found in surveys of the adjacent V .C. Summer Nuclear Station. Section 4.6.1 identifies federally listed species in the project vicinity. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized to do so by the Department of the Interior. On March 30, 2011, the Service and the Commission entered into a Memorandum of Understanding that focuses on avoiding or minimizing adverse impacts on migratory birds and cooperative reinforcement for migratory bird conservation. The Service's division of Migratory	SCE&G has been in informal consultation with the USFWS since 2013 to identify species that are potentially impacted by the operation of the Parr Shoals Hydroelectric Project. We will continue to work with the USFWS to identify potential impacts to protected species, including BCC, within the project boundary during relicensing.

	<p>Bird Management provides regional lists of Birds of Conservation Concern (BCC), which consist of migratory nongame conservation priority species. The BCC list is divided into Bird Conservation Regions (BCR). The Project occurs in the Piedmont region (BCR 27). We recommend that the Final License Application considers the Project's potential impact on BCC that occur in the Project vicinity including, but not limited to bald eagle, prairie warbler, loggerhead shrike, and brown-headed nuthatch.</p>	
RT&E Species	<p>Section 4.6.1: The list of federally protected species is dynamic. Table 4-18 omits several species known to occur in Richland, Fairfield, and Newberry Counties, South Carolina. It is important that the Final License Application and the Commission's environmental document describe and fully consider potential impacts to these species resulting from the Project's new license.</p>	<p>SCE&G will continue to work with the USFWS during relicensing to identify project impacts to federally protected species. We will include all of our findings in the FLA.</p>
RT&E Species (mussels)	<p>Sections 4.6.4 and 5.1.5: Currently, no studies have been proposed to determine how the Project may be affecting the yellow lampmussel (<i>Lampsilis cariosa</i>) and Roanoke slabshell (<i>Elliptio roanokensis</i>). However, it is evident from data collected so far, that the Parr dam is a physical barrier that prevents these species from accessing upstream habitats, thereby limiting the distribution and recovery of these priority species. The Service is committed to restoring populations of these species upstream of the Parr Reservoir and elsewhere in the Broad River basin.</p>	<p>Acknowledged. SCE&G and the SCDNR have performed studies in recent years that document these two mussel species downstream of the Project. In addition, a survey is planned for Lake Monticello in 2015 as part of relicensing. To date, these two species have not been observed upstream of the project. Although these species may have an anadromous host, and thus would be limited in upstream extent by the dam, NEPA and FPA do not require that these populations be analyzed relative to pre-project conditions (i.e., potential distribution in the absence of the dam). It should be noted that these species are not federally listed, therefore Section 7 requirements do not apply. Similarly, there are no recovery goals for these species.</p>
Recreation Land	<p>Section 4.7.11: The Service supports SCDNR's assertion that any lands reclassified from the future recreation designation should be replaced.</p>	<p>Comment noted.</p>

<p>Additional Information Requests</p>	<p>The Service echoes the additional information needs put forth by SCDNR and requests the following:</p> <ol style="list-style-type: none"> 1) Presentation hydrologic data describing Project outflow in relation to inflow with sufficient resolution (hourly timescale) so as to reveal potentially meaningful hydrologic trends and associated biological impacts; 2) A description of measures in place to continue monitoring and remediation of impaired water quality within and immediately downstream of the Project boundary; 3) Assess potential adverse impacts and issues for federally protected species omitted from the PAD including migratory birds⁷; and 4) Does SCE&G concur with the Service's assertion that the Project is a barrier limiting the distribution and recovery of yellow lampmussel and Roanoke slabshell? If not, additional surveys/studies may be needed to verify this fact. 	<ol style="list-style-type: none"> 1) SCE&G agrees that we should discuss this issue additionally during relicensing. We plan to add this issue to the Fisheries TWC and discuss it initially during July/August 2015. We will use that discussion to identify the “next steps” for gathering additional information to better define the issue. 2) We will include these in the FLA and the proposed PM&E measures 3) We will include these in the FLA and the proposed PM&E measures 4) SCE&G is not clear on this statement. We do not agree that the relicensing process requires the Licensee to analyze the environment without the presence of the project. NEPA and FPA require that we determine the impacts on existing populations of federally protected species within the project, but not relative to pre-project conditions. Therefore, we will need further clarification from USFWS on this issue before we can properly respond or address their concerns. <p>Note: it is probably a fair statement to say that the dam limits upstream extent of these species; however, that is not relevant given that NEPA and FPA only require that the applicant analyze impacts to species relative to an environmental baseline that includes the presence of the dam, and NOT relative to pre-project conditions.</p>
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Typos/Document Errors	Section 4.2.2: Table 4-2: The water year for minimum recorded flow in May is incorrect. Section 4.3.1.4: The reference of (Post 2010) under the "American Shad" heading was not included in references section 4.3.8.	Noted.
National Oceanic and Atmospheric Administration – Marine Fisheries Division		
Downstream Flows	Project operations have been observed to alter downstream flows (compared to inflows) so as to increase the magnitude and frequency of high flow events (PAD, Appendix C, pages 331- 354). Project operations can alter the flows released at Parr Dam as measured at Alston all the way to the Congaree River (see Figures on pages 352, 353, and 354). The NMFS is concerned these flow variations may disrupt spawning by anadromous fish in the Broad and Congaree Rivers.	SCE&G agrees that we should discuss this issue additionally during relicensing. We plan to add this issue to the Fisheries TWC and discuss it initially during July/August 2015. We will use that discussion to identify the “next steps” for gathering additional information to better define the issue.
Downstream Fluctuations	The NMFS also has concerns about potential impacts from fluctuating water levels from peaking activities to the area in the Congaree River known to be spawning habitat for Shortnose Sturgeon (<i>Acipenser brevirostrum</i>). A meeting on April 24, 2014, between Kleinschmidt and the South Carolina Department of Natural Resources (SCDNR) involving Shortnose Sturgeon populations is summarized in Appendix C, pages 917-918. In that consultation, SCDNR staff noted SCDNR would have concerns if Project operations impact flows downstream in the Congaree River during the spring spawning season. Data presented in the PAD (Figure on pages 352-354) clearly show the effects of Project operations on duration and magnitude of flows downstream to the Congaree River. Since these flows may disrupt spawning anadromous fish, including the federally-endangered Shortnose Sturgeon, the NMFS recommends that SCDNR, USFWS, and NMFS personnel be consulted to determine if additional information may be needed to assess those impacts.	SCE&G agrees that we should discuss this issue additionally during relicensing. We plan to add this issue to the Fisheries TWC and discuss it initially during July/August 2015. We will use that discussion to identify the “next steps” for gathering additional information to better define the issue.
Additional Information Requests	1. SCE&G further evaluate hydrologic information on Project flows (inflow, outflow, and Congaree River flows) to better assess the impact on spawning anadromous fishes, especially the Shortnose Sturgeon.	1 & 2) SCE&G agrees that we should discuss this issue additionally during relicensing. We plan to add this issue to the Fisheries TWC and discuss it initially during July/August 2015. We will use

	<p>2. SCE&G convene a meeting with the resource agencies and interested stakeholders to discuss the potential impacts of current project operations on the spawning of anadromous fish, to include American Shad, Striped Bass, and Shortnose Sturgeon.</p> <p>3. SCE&G scope options for and evaluate the engineering feasibility of fishways at the Parr Shoals Development suitable for passing American Eel, American Shad, and Blueback Herring.</p>	<p>that discussion to identify the “next steps” for gathering additional information to better define the issue.</p> <p>3) SCE&G is an active member of the Santee Basin ACCORD, which is focused on the restoration of anadromous fish species. The ACCORD plan includes fish passage requirements for the Parr Project. SCE&G will include the agreements of the ACCORD in the Settlement Agreement and the FLA.</p>

DLA Comment Matrix

ID	Resource	Commenting Agency/Stakeholder	Filed By	Document	Comment	Response
1	Aquatic	USFWS	Tom McCoy	DLA	3.2.2 Additional PM&Es or Off-License Agreements Under Evaluation: The Service continues to have concerns about the unavoidable impacts to aquatic resources, which are beyond the operational changes that are proposed to mitigate such impacts, due to fish entrainment, the fluctuations at the Parr and Monticello Reservoirs, and the downstream flow fluctuations. As such, we support South Carolina Department of Natural Resources' request that SCE&G establish a mitigation fund for the continuing unavoidable impacts to those aquatic resources.	Comment noted. SCE&G developed the Habitat Enhancement Program to address this issue. See Exhibit E-5.
2	Aquatic	USFWS	Tom McCoy	DLA	4.5.4 Unavoidable Adverse Effects - Impingement and Entrainment: SCE&G has proposed to increase fish production and enhance aquatic habitat away from the development's intakes as a way to mitigate for fish entrainment and turbine mortality. The Service believes that more could potentially be done to offset some of the impacts and look forward working with SCE&G to further reduce fish entrainment and turbine mortality once the hydroacoustic survey, to be performed in August 2017, and subsequent report is complete.	SCE&G developed a Fish Entrainment Reduction Plan to address this issue. See Exhibit E-5.
3	Terrestrial	USFWS	Tom McCoy	DLA	4.6 Terrestrial Resources - 4.6.2.2 Proposed Action: Invasive species will continue to be a problem for many of our natural communities. SCE&G has proposed to implement the new Shoreline Management Plan which will provide some protection for shoreline development. The Service recommends that the Shoreline Management Plan and subsequent permitting handbook address best management practices for the prevention and management of invasive species.	Section 11.3 of the SMP has been revised to address USFWS concerns. See Exhibit E-10.
4	Rare, Threatened and Endangered Species	USFWS	Tom McCoy	DLA	4.7 Rare, Threatened and Endangered Species - Federally Listed and Candidate Species: This section now needs to include information regarding the northern long-eared bat (NLEB). The NLEB was listed as threatened under the Endangered Species Act of 1973 (ESA) on May 4, 2015. At this time the NLEB were only thought to occur only ten counties within South Carolina. However, recent surveys have discovered the NLEB in the coastal counties of Beaufort, Berkeley, and Charleston. With this new information, the Service assumes that the NLEB is likely to occur statewide at all times of the year. This change became effective on July 17, 2017.	The RTE Assessment was revised to include updated information on the NLEB (see Exhibit E-7). Information was also included in the Exhibit E of the FLA.
5	Exhibit B	SCDNR	Bill Marshall	DLA	Section 1.3, page 1-3: Reference is given to project operations during "adverse, mean and high" water years. We understand the meaning of these terms because they are described in the text, but we recommend that consideration be given to modifying these terms to below normal or low, normal, and above normal or high.	Exhibit B was revised to incorporate this recommendation.
6	Exhibit B	SCDNR	Bill Marshall	DLA	Section 2.4: The area capacity curves provided in Exhibit B-15 for Parr Reservoir and B-17 for Monticello are helpful in understanding project impacts on reservoir volume and aquatic habitat. These data show that for Parr Reservoir, as much as 90% of the lake volume is drained or filled on a daily basis, creating a highly dynamic aquatic habitat where as much as 3,000 acres may be dewatered. While a much smaller percentage of shoreline area is impacted on Monticello Reservoir, as many as 400 acres may be dewatered on a daily basis.	Comment noted.
7	Exhibit E	SCDNR	Bill Marshall	DLA	SCDNR suggests SCE&G consider developing some standardized language to describe reservoir fluctuations. They are discussed in Exhibits A, B, and E, each time there appears to be a slight variation in wording. As examples, in Exhibit A it states, "The reservoir's operating range is between 419.8 ft. and 424.3 ft., with a usable storage of 29,000 acre-feet. All or a part of this volume is utilized on a daily basis for pumped storage operations"; while in Exhibit B, section 1.0 second paragraph, it states, "active storage is transferred from the Parr Reservoir back into the Monticello Reservoir", and a reader could conclude all active storage is transferred, which is not always correct. Based on our understanding, the description provided in Exhibit E, section 3.1.1.3, most accurately describes the operating range.	The description provided in Exhibit E is now also included in Exhibits A and B.
8	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.1.1.5: We noticed that transmission to "Parr Steam Station 115KV substation" is mentioned in this section, while Exhibit G, Section 2.0 indicates that "Parr Steam Station" no longer exists. Does the substation still exist?	Yes, the substation does still exist, but the Parr Steam Station does not exist.
9	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.1.1.6, page 3-5: Typo in the last paragraph of section: change pas to pass.	Comment noted. This was corrected.
10	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.2.1: SCDNR notes that some of the proposed PM&E measures, such as downstream minimum flows, will need to be updated in the FLA to reflect more current agreements.	Comment noted. The PM&E measures were updated for the FLA.
11	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.2.1, page 3-7: Navigation flows are discussed and in describing the study conducted to assess navigation flows, the DLA states, "The results of the assessment suggested that a flow between 700-1000 cfs is sufficient for downstream navigation at both of the constriction points investigated." SCDNR notes that while a flow of 700 cfs may be judged by some to be sufficient for downstream navigation, the study results applied to state criteria indicate that a flow of at least 1,000 cfs needed to be consistent with the South Carolina Water Plan.	Comment noted. Please see response to comment 21.
12	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.2.1, page 3-9: Improving dissolved oxygen in the west channel is discussed. SCDNR agrees that improving dissolved oxygen in the bypassed section of the river is important, but increasing the depth and flow, which are also important components of aquatic habitat, is also important to SCDNR, as has been discussed and addressed in more recent meetings with SCE&G.	Comment noted. Resolved in Final West Channel AMP. See Exhibit E-4.
13	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.2.1, page 3-13: Typo: insert "are" to the sentence, "... when 50% of the specified total restoration numbers for adult anadromous American shad or blueback herring are being passed at Columbia Dam."	Comment noted. This was corrected.
14	Exhibit E	SCDNR	Bill Marshall	DLA	Section 3.3.4, page 3-16: SCE&G explains why they do not think they should provide mitigation compensation if they do not meet target flows when inflows are high enough to meet them. From SCDNR's perspective, this proposed compensation was intended to occur only when Lake Monticello is filled at a rate that is faster than inflow is filling Parr Reservoir, which is controlled by SCE&G. We suggested compensation as a way to discourage SCE&G from operating the Project in that manner, because it reduces benefits to aquatic resources downstream of the project. However, this proposal is now a mute issue, because the downstream minimum flow agreement, which we support, provides SCE&G with some limited operational flexibility in meeting the target flows, and we believe the minimum flows and target flows identified will protect and/or enhance aquatic resources and associated users.	Comment noted. SCE&G intends to do what is necessary to meet the minimum flow requirements agreed to in the Comprehensive Relicensing Settlement Agreement. Deviations will be reported to FERC in accordance with the appropriate license terms.
15	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.3.2.2, page 4-18: Proposed Action: reference is given to the Erosion Monitoring Plan that will be in Appendix D. SCDNR notes that the plan has been changed subsequent to the DLA filing, and the FLA will need to present the current version of the plan.	Comment noted. See Exhibit E-3.
16	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.4.2.4, page 4-45: Proposed Action: reference is given to the West Channel Water Quality Monitoring Plan in Appendix D. SCDNR notes that plan has been changed subsequent to the DLA filing, and the FLA will need to present the current version of the plan.	Comment noted. See Exhibit E-4.
17	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.5.1.3, Table 4-15: A few of the common names of fish are cut short as caused by narrow column width in the table.	Comment noted. This table was revised.
18	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.5.1.4, page 4-53: A statement in the second paragraph says, "American shad have been documented downstream of the Parr Shoals Dam at the Columbia Hydroelectric Project (Columbia Project) (FERC No. 1895) (Table 4-17). This anadromous species passes through the Santee-Cooper lake system via the St. Stephen Fish Lift and moves up into the Congaree River." SCDNR notes that the statement is true, but would add that American shad also pass upstream into Lake Monticello through the Pinopolis Navigation Lock.	Comment noted. Wording was added to Exhibit E to mention shad passage through the Pinopolis Navigation Lock.
19	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.7.2.2, page 4-91: The statement is made that "Population groups of shortnose sturgeon are known to occur downstream of the Santee-Cooper dams in the lower Santee and Cooper rivers (Collins et al. 2003)". This paragraph also needs to mention the known occurrence of shortnose sturgeon upstream of the Santee-Cooper dams and established population in the Brown's Lake area of Lake Marion (a citation can be provided if needed).	Comment noted. Shortnose sturgeon population in Brown's Lake area of Lake Marion was added.
20	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.8.2.2, page 4-109: A sentence reads: "Data suggested that navigational passage is not a limiting factor at Ledge 1 for flows as low as 500 cfs. At Ledge 2, data indicates that a flow of 1000 cfs meets both the minimum depth and width aspects of the criteria, with approximately 82 feet (10 percent) of cross-sectional passage provided collectively by the two passage points at that ledge (Kleinschmidt 2016c)." SCDNR would acknowledge the sentence as accurate, but since the SC Water Plan recommends the minimum flow to be the greater of flows needed to meet the navigation criteria then it should be clarified that a flow of at least 1,000 cfs is needed to meet the criteria consistent with the SC Water Plan. We recommend that this be clarified in the final license application.	Comment noted. We have not edited the FLA since the statement, as SCDNR notes, is accurate.
21	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.8.2.2, page 4-110: The establishment of instream flows is discussed and the statement is made: "Flows for recreation and navigation are just two components of the overall downstream flow discussion currently taking place with TWC members. Flows for aquatic resources, which hinge on final determinations from the IFIM study, may also meet recreational and navigational flow requests". SCDNR concurs with that statement, but recommends that language to clarify our policy on the establishment of instream flows be included in the final license application. The SCDNR instream flow policy is described in the SC Water Plan, a comprehensive plan filed with the FERC, and states that the minimum required flow for a stream is the greatest of the minimum flows required for: 1) the protection of water quality; 2) protection of fish and wildlife habitats; 3) maintenance of navigability; and 4) estuary maintenance and prevention of saltwater intrusion (SCDNR 2004). As explained on page 4-108 of the DLA, the criteria for providing one-way downstream navigation are described in the South Carolina Water Resources Commission document (SCWRC 1988).	Comment noted. This section was revised to reflect the SCDNR instream flow policy as described in the SC Water Plan.
22	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.10.1.4, page 4-123: At the bottom of the page, under visual characteristics, a description of Lake Monticello, Parr Reservoir and the Recreation Lake are provided. The description of the Recreation Lake may be more appropriate following the description of Lake Monticello rather than Parr Reservoir.	Comment noted. The FLA was revised.
23	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.10.1.4, page 4-123 and Table 4-31 - The total shoreline for Parr reservoir in Table 4-31 does not match the distance reported in the text on page 4-123.	Comment noted. The shoreline miles were revised for the FLA.
24	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.10.1.4, page 4-123 and Table 4-32: The text states that "Monticello Reservoir covers 6,800 acres and has 54 miles of shoreline", which is not consistent with the mileage reported in Table 4-32. The number provided in the text does not appear to include the subimpoundment and/or the islands, and should be clarified in the table.	Comment noted. The shoreline miles were revised for the FLA.
25	Exhibit E	SCDNR	Bill Marshall	DLA	Section 4.11.2.2, page 4-135: The downstream navigation flow study is discussed on the bottom of page 4-135, and we note some inconsistency in how this information is presented throughout the DLA. According to this section, "the results [of the recreational navigational flow study] suggested that a flow of 700-1,000 cfs is necessary for downstream navigation." This language was also used on page 3-8 of Exhibit E. Based on our understanding of the study results, the findings of that study are most accurately described on page 4-109 in Exhibit E, which says: "Data suggested that navigational passage is not a limiting factor at Ledge 1 for flows as low as 500 cfs. At Ledge 2, data indicates that a flow of 1000 cfs meets both the minimum depth and width aspects of the criteria, with approximately 82 feet (10 percent) of cross-sectional passage provided collectively by the two passage points at that ledge (Kleinschmidt 2016c)." This language was also used on page 3-8 of Exhibit E.	Comment noted. This statement was revised.

26	Exhibit E	SCDNR	Bill Marshall	DLA	Section 6-2, page 6-3: Unavoidable impacts associated with the Project are discussed and under Fishery Resources, the DLA states "Parr Reservoir experiences fluctuations associated with pumped storage operations". We concur with that statement and note that while not as severe as Parr Reservoir, Monticello Reservoir also experiences fluctuations associated with pump storage operations. In addition, even though proposed PM&Es are expected to reduce downstream flow fluctuation, Project operations will likely continue to create downstream flow fluctuations to the Broad River that may interfere with the spawning of various fish species including American Shad and Striped Bass.	Comment noted.
27	Exhibit E	SCDNR	Bill Marshall	DLA	Section 6.3, page 6-6, Table 6.1: The South Carolina Water Plan is listed as a comprehensive plan that addressed water resources, which is true. However, this plan also describes the SCDNR instream flow policy which protects water quality, fish and wildlife habitat, and recreational navigation.	Comment noted. The Exhibit E was updated to reflect this request.
28	Exhibit E	SCDNR	Bill Marshall	DLA	Also, Table 6.1 indicates DLA consistency with the SC Water Plan; however, SCDNR would not agree that the DLA is consistent with the SC Water Plan or the other South Carolina plans that address navigation flows. As communicated in previous comments, a flow of at least 1,000 cfs is needed to meet navigational flow criteria consistent with the SC Water Plan, and the DLA presents 900 cfs as a target Minimum Flow Recommendation for the Project (in Section 3.2.1). Having said this, we acknowledge this to be a mute issue at this time because progress in negotiating Project flows have resulted in a downstream minimum flow agreement, which is consistent with the SC Water Plan and expected to be included with the final license application.	Comment noted. This issue was resolved since the DLA was issued and therefore, the proposed PM&E measures are consistent with the SC Water Plan and other South Carolina plans.
29	Exhibit E	NMFS	Pace Wilber	DLA	Section 2.1 (2.1.1) Section 18 Fishway Prescriptions: This section notes the U.S. Fish and Wildlife Service (USFWS) is a member of the Santee Accord and agreed that the Fish Passage Feasibility Assessment will be conducted pursuant to the Accord when certain biological triggers are met. It should be noted that the NMFS is not a signatory to the Accord and can provide a separate prescription for fish passage.	Comment noted.
30	Exhibit E	NMFS	Pace Wilber	DLA	Section 2.3 Endangered Species Act: This section of the DLA only references consulting USFWS regarding listed species. The NMFS Protected Resources Division should also be consulted regarding potential impacts to the shortnose sturgeon and Atlantic sturgeon.	We agree. This section was revised.
31	Exhibit E	NMFS	Pace Wilber	DLA	Section 2.4 Magnuson-Stevens Fishery Conservation and Management Act: This section briefly describes the Act but leaves out any mention of the essential fish habitat (EFH) portion of the Act. The Project Area does not contain EFH, and project influences are unlikely to extend downstream to estuarine waters where EFH occurs. Accordingly, the NMFS would support a conclusion by SCE&G and FERC that EFH consultation pursuant to Section 305(b) of the Magnuson-Stevens Act will not be required for this relicensing action. If this proves to be the case, the NMFS recommends a paragraph to this effect be included in the final application.	Comment noted. The FLA was revised to include a conclusion by SCE&G that EFH consultation pursuant to Section 305(b) of the Magnuson-Stevens Act will not be required.
32	Exhibit E	NMFS	Pace Wilber	DLA	Section 4.5.1.3. Table 4-15 on page 4-50: SCE&G should address several errors/omissions in the Table. For example, remove (1-27-06) after <i>Scartomyzon sp.</i> and complete the names of shorthead redhorse (omitted) <i>Maxostoma macrolepidotum</i> (omitted) and northern hog sucker (omitted). The correct scientific name for the eastern mosquitofish is <i>Gambusia holbrooki</i> .	Comment noted. This table was revised.
33	Exhibit E	NMFS	Pace Wilber	DLA	Section 4.5.1.4 Diadromous Fish: Second sentence. Historically, Atlantic sturgeon also occurred in the Santee Basin but are omitted from the list. Seconded paragraph, second sentence. American shad also pass into the lakes through the Pinopolis Lock.	Comment noted. Atlantic sturgeon were added to the list in this section. Also, the American shad comment was added.
34	Exhibit E	NMFS	Pace Wilber	DLA	Section 4.7 Rare, Threatened, and Endangered Species: Blueback Herring, page 4-84. This species should be referred to as an anadromous fish not diadromous.	Comment noted. Blueback herring will be referred to as an anadromous fish.
35	Cultural	Cherokee Nation	Elizabeth Toombs	DLA	The CN requests that the SCE&G halt all project activities immediately and re-contact our office for additional consultation if items of cultural significance, including archaeological or related human remains, are discovered during the course of this project.	The CN was contacted during the development of the HPMP and did not respond. Therefore, if they wish to be a consulting party, we recommend that FERC include contacting of the CN in the Programmatic Agreement.
36	Cultural	Cherokee Nation	Elizabeth Toombs	DLA	The CN requests that SCE&G include the CN as a consulting party to the <i>Historic Properties Management Plan (HPMP)</i> and <i>Programmatic Agreement</i> related to this project.	The CN was contacted during the development of the HPMP and did not respond. Therefore, if they wish to be a consulting party, we recommend that FERC include contacting of the CN in the Programmatic Agreement.
37	Cultural	Cherokee Nation	Elizabeth Toombs	DLA	In regard to the HPMP, if educational cultural material related to archaeological sites are released to the public, the CN requests an opportunity to consult regarding these materials prior to their release.	The CN was contacted during the development of the HPMP and did not respond. Therefore, if they wish to be a consulting party, we recommend that FERC include contacting of the CN in the Programmatic Agreement.
38	Cultural	Cherokee Nation	Elizabeth Toombs	DLA	The American Eel is an important fish in Cherokee culture. Thus, the CN supports SCE&G's efforts to monitor the American Eel as a part of the West Channel Adaptive Management Plan, and its inclusion in the <i>Comprehensive Relicensing Settlement Agreement</i> .	Comment noted.
39	4(e) Conditions	USFS		DLA	Condition No. 1 - Revision of Forest Service Conditions: Forest Service reserves the right, after notice and opportunity for comment, to require changes in the Project and its operation through revision of the Section 4(e) conditions to accomplish protection and utilization of National Forest System lands and resources. Forest Service also reserves the right to modify these conditions, if necessary, to respond to any significant changes in the assessed effects of the Project on national forest resources that warrant a revision of these conditions, for example, a Final Biological Opinion issued for this Project by the National Marine Fisheries Service or United States Fish and Wildlife Service; or any Certification issued for this Project by the State Water Resources Control Board.	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
40	4(e) Conditions	USFS		DLA	Condition No. 2 - Surrender of License or Transfer of Ownership: Prior to any surrender of this license, Licensee shall provide assurance acceptable to Forest Service that Licensee shall restore any project area directly affecting National Forest System lands to a condition satisfactory to Forest Service upon or after surrender of the license, as appropriate. To the extent restoration is required, Licensee shall prepare a restoration plan for Forest Service approval, which shall identify the measures to be taken to restore such National Forest System lands and shall include adequate financial mechanisms to ensure performance of the restoration measures. In the event of any transfer of the license or sale of the project, Licensee shall assure that, in a manner satisfactory to Forest Service Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by FS to assist it in evaluating Licensee's proposal, Licensee shall conduct an analysis, using experts approved by Forest Service, to estimate the potential costs associated with surrender and restoration of any project are directly affecting National Forest System lands to Forest Service specifications. In addition, Forest Service may require Licensee to pay for an independent audit of the transferee to assist FS in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
41	4(e) Conditions	USFS		DLA	Condition No. 3 - Requirement to Obtain a Forest Service Special Use Authorization for Use of National Forest System Lands: <u>Requirement to Obtain a Forest Service Special Use Authorization Based on the Energy Policy Act of 1992</u> - Licensee shall obtain a special use authorization from Forest Service for the occupancy and use of lands included in the licensed project boundary. Licensee shall obtain the executed authorization prior to beginning any ground disturbing activities on National Forest System lands to be covered by the special use authorization and shall file that special use authorization with the Commission. Licensee shall be responsible for the costs of collecting all information directly related to the evaluation of the effects of the proposed occupancy and use that Forest Service needs in order to make a decision concerning issuance of the special use authorization. - <u>Requirement to Obtain a Forest Service Special Use Authorization Based on Issuance of Previous Special Use Authorization(s)</u> - Licensee shall obtain a special use authorization from Forest Service for the occupancy and use of lands previously covered by a special use authorization in any previous license. Licensee shall obtain the executed authorization within 6 months of license issuance and prior to beginning any ground disturbing activities on National Forest System lands to be covered by the special use authorization and shall file that special use authorization with the Commission. Licensee shall be responsible for the costs of collecting all information directly related to the evaluation of the effects of the proposed occupancy and use that Forest Service needs in order to make a decision concerning issuance of a special use authorization. - <u>Requirement to Obtain a Forest Service Special Use Authorization for Projects That Involve the Use of Additional National Forest System Lands that do not have a Special Use Authorization</u> - Licensee shall obtain a special use authorization from Forest Service for the occupancy and use of National Forest System lands that are (1) not part of the existing license but are added to the FERC boundary by the Commission and (2) not previously covered by a special use authorization. Licensee shall obtain the executed authorization within 6 months of license issuance and prior to beginning any ground disturbing activities on National Forest System lands to be covered by the special use authorization and shall file that special use authorization with the Commission. Licensee shall be responsible for the costs of collecting all information directly related to the evaluation of the effects of the proposed occupancy and use that Forest Service needs in order to make a decision concerning issuance of a special use authorization.	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.

42	4(e) Conditions	USFS	DLA	<p>Condition No. 4 - Requirement to Obtain a Short-Term Forest Service Special Use Authorization: If, during the term of the License, Licensee proposes to perform any project construction work, the Licensee shall obtain a short-term special use authorization prior to beginning any ground disturbing activities on National Forest System land. Licensee shall be responsible for the costs of collecting and analyzing all information directly related to the evaluation of the effects of the proposed project that Forest Service needs in order to make a decision concerning issuance of a short-term special use authorization. Licensee may commence ground disturbing activities authorized by the License and short-term special use authorization no sooner than 60 days following the date Licensee files the Forest Service short-term special use authorization with the Commission, unless the Commission prescribes a different commencement schedule. In the event there is a conflict between any provisions of the License and Forest Service special use authorization, the special use authorization shall prevail to the extent that Forest Service, in consultation with the Commission, deems the terms of the special use authorization necessary to protect and utilize National Forest System resources. The short-term special use permit shall address but not be limited to:</p> <ul style="list-style-type: none"> • Safety. • Use and storage of equipment. • Properly licensed construction personnel. • Inspections. <p style="text-align: center;">Before any construction occurs on National Forest System lands, Licensee shall obtain prior written approval of Forest Service for all final design plans for Project components, which Forest Service deems as affecting or potentially affecting National Forest System resources.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
43	4(e) Conditions	USFS	DLA	<p>Condition No. 5 - Compliance with Regulations: Licensee shall comply with the regulations of the Department of Agriculture for activities on National Forest System lands, and all applicable Federal, State, county, and municipal laws, ordinances, or regulations in regards to the area or operations on or directly affecting National Forest System lands, to the extent those laws, ordinances or regulations are not preempted by Federal law.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
44	4(e) Conditions	USFS	DLA	<p>Condition No. 6 - Protection of United States Property: Licensee, including any agents or employees of Licensee acting with the scope of their employment, shall exercise diligence in protecting from damage the land, property, and interests of the United States from damage arising from Licensee's construction, maintenance, or operation of the project works or the works appurtenant or accessory thereto under the license. Licensee's liability for fire and other damages to National Forest System lands shall be determined in accordance with the Federal Power Act and standard Form L-1 Articles 22 and 24 or correct current form.</p> <p>As part of the occupancy and use of the project area, Licensee has a continuing responsibility to reasonably identify and report all known or observed hazardous conditions on or directly affecting National Forest System lands that would affect the improvements, resources, or pose a risk of injury to individuals. Licensee will abate those conditions, except those caused by third parties or not related to the occupancy and use authorized by the License. Any non-emergency actions to abate such hazards on National Forest System lands shall be performed after consultation with Forest Service. In emergency situations, Licensee shall notify Forest Service of its actions as soon as possible, but not more than 48 hours, after such actions have been taken. Whether or not Forest Service is notified or provides consultation, Licensee shall remain solely responsible for all abatement measures performed. Other hazards should be reported to the appropriate agency as soon as possible.</p> <p>Licensee shall maintain all its improvements and premises on National Forest System lands to standards of repair, orderliness, neatness, sanitation, and safety acceptable to Forest Service. Licensee shall comply with all applicable Federal, State, and local laws and regulations, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resources Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Control, and Liability Act, 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, and maintenance of any facility, improvement, or equipment. Disposal of all materials will be at an approved existing location, except as otherwise agreed by Forest Service.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
45	4(e) Conditions	USFS	DLA	<p>Condition No. 7 - Existing Claims: Licensee shall be subject to all valid claims and existing rights of third parties. The United States is not liable to Licensee for the exercise of any such right or claim.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
46	4(e) Conditions	USFS	DLA	<p>Condition No. 8 - Indemnification: Licensee shall indemnify, defend, and hold the United States harmless for:</p> <ul style="list-style-type: none"> • any violations incurred under any laws and regulations applicable to, or • judgments, claims, penalties, fees, or demands assessed against the United States caused by, or • costs, damages, and expenses incurred by the United States caused by, or • the releases or threatened release of any solid waste, hazardous substances, pollutant, contaminant, or oil in any form in the environment related to the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. <p>Licensee's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property caused by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. Upon surrender, transfer, or termination of the license, Licensee's obligation to indemnify and hold harmless the United States shall survive for all valid claims for actions that occurred prior to such surrender, transfer or termination.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
47	4(e) Conditions	USFS	DLA	<p>Condition No. 9 - Access within the License Area: The United States shall have unrestricted use of any part of the licensed area on National Forest System lands for any purpose, including permitting uses by third parties or members of the public, provided such use does not interfere with the rights and privileges authorized for the license.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
48	4(e) Conditions	USFS	DLA	<p>Condition No. 10 - Use of National Forest System Roads: If the Project requires use of roads on National Forest System lands, Licensee shall obtain suitable authorization for all project access roads and National Forest System roads needed for Project access. The authorization shall require road maintenance and cost sharing in reconstruction commensurate with Licensee's use and project-related use. The authorization shall specify road maintenance and management standards that provide for traffic safety, minimize erosion, and minimize damage to natural resources and that are acceptable to Forest Service as appropriate.</p> <p>Licensee shall pay Forest Service for its share of maintenance cost or perform maintenance or other agreed to services, as determined by Forest Service, for all use of roads related to project operations, project-related public recreation, or related activities. The maintenance obligation of Licensee shall be proportionate to total use and commensurate with its use. Any maintenance to be performed by Licensee shall be authorized by and shall be performed in accordance with an approved maintenance plan and applicable Best Management Practices (BMPs). In the event a road requires maintenance, restoration, or reconstruction work to accommodate Licensee's needs, Licensee shall perform such work at its own expense after securing Forest Service road maintenance, restoration, or reconstruction standards and authorization.</p> <p>Licensee shall complete a condition survey and a proposed maintenance plan subject to Forest Service, review and approval as appropriate once each year. The plan may take the format of a road maintenance agreement provided all the above conditions are met as well as the conditions set forth in the proposed agreement.</p> <p>In addition, all National Forest System roads used as Project Access roads (PAR) and Right-of-Way access roads (ROW) shall have:</p> <ul style="list-style-type: none"> • Current condition survey. • Map(s) at a scale to allow identification of specific routes or segments. • FS assigned road numbers are used for reference on the maps, tables, and in the field. • GIS compatible files of GPS alignments of all roads used for Project access are provided to Forest Service. • Adequate signage is installed and maintained by Licensee at each road or route, identifying the road by Forest Service road number. <p>Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, as identified in the authorization described above. Forest Service, reserves the right to close any and all such routes where damage is occurring to the soil or vegetation or to require reconstruction/construction by Licensee to the extent needed to accommodate Licensee's use. Forest Service, agrees to provide notice to Licensee prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.</p> <p>Licensee shall maintain suitable crossings as required by FS, for all roads and trails that intersect the right-of-way occupied by linear Project facilities (powerline, penstock, ditch, and pipeline).</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.

49	4(e) Conditions	USFS	DLA	<p>Condition No. 11 - Hazardous Substances Plan: Hazardous substances may not be stored on National Forest System lands without prior approval of Forest Service, Licensee shall submit a spill prevention and cleanup plan for approval by Forest Service, as part of any request to store hazardous substances. The plan shall show evidence of consultation with Forest Service. The plan shall be filed with the Commission.</p> <p>At a minimum, the plan must (1) outline the Licensee's procedures for reporting and responding to releases of hazardous substances, including names and phone numbers of all emergency response personnel and their assigned responsibilities; (2) maintain in the project area, a cache of spill cleanup equipment suitable to contain any spill from the project; (3) include a schedule to periodically inform Forest Service, of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; and (4) include a requirement to inform Forest Service immediately of the magnitude, nature, time, date, location, and action taken for any spill. Procedures for chemicals are outlined in the Department of Transportation's Emergency Response Guide Book (Orange book) and in the MSDS/SDS for each chemical.</p> <p>For DRY spills:</p> <ul style="list-style-type: none"> • Immediately cover with plastic or a tarpaulin to prevent the chemical from becoming airborne • Sweep the material together, rolling the tarp back slowly • Shovel the material into doubled plastic bags • Identify product name for the chemical(s) spilled and apply this information to the outside of the containment bags, along with the time, date, location and amount of spill. <p>For LIQUID spills:</p> <ul style="list-style-type: none"> • Use absorbent material, such as kitty litter or sawdust, to soak up the spill. Begin spreading the absorbent material around the edge of the spill and then work toward the center. Use only enough material to absorb the spill • Shovel the absorbent material and chemical, along with any contaminated soil, into doubled plastic bags • Identify product name for the chemical(s) spilled and apply this information to the outside of the containment bags, along with the time, date, location and amount of spill. <p>The plan shall include a monitoring plan that details corrective measures that will be taken if spills occur. The plan shall include a requirement for a weekly written report including maps, documenting the results of the monitoring to be sent to the Forest Service-Francis Marion and Sumter National Forest-MAZMAT Coordinator.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
50	4(e) Conditions	USFS	DLA	<p>Condition No. 12 - Pesticide-Use Restrictions on National Forest System Lands: Pesticides may not be used on National Forest System lands or in areas affecting National Forest System lands to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, non-native fish, etc., without the prior written approval of Forest Service. Any request by Licensee to use pesticides shall be accompanied by the following:</p> <ul style="list-style-type: none"> • A determination as to whether pesticide applications are essential for use on National Forest System lands; • Specific locations of use; • Specific pesticides proposed for use; • Application rates; • Dose and exposure rates; and • Safety risk and timeframes for application. <p>Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the report was submitted. In such an instance, an emergency request and approval may be made.</p> <p>On National Forest System lands, Licensee shall only use those materials registered by the U.S. Environmental Protection Agency and consistent with those applied by Forest Service and approved through Forest Service review for the specific purpose planned. Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers. Licensee may also submit Pesticide Use Proposal(s) with accompanying risk assessment and other Forest Service required documents to use pesticides on a regular basis. Submission of this plan will not relieve Licensee of the responsibility of annual notification and review.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
51	4(e) Conditions	USFS	DLA	<p>Condition No. 13 - Consultation: Licensee shall annually consult with Forest Service. The date of the consultation meeting will be mutually agreed to by Licensee and Forest Service but in general should be held by April 15. At least 30 days in advance of the meeting, Licensee shall notify other interested stakeholders, confirming the meeting location, time and agenda. At the same time, Licensee shall also provide notice to South Carolina Department of Natural Resources and United States Fish and Wildlife Service, who may choose to participate in the meeting. Licensee shall attempt to coordinate the meeting so interested agencies and other stakeholders may attend.</p> <p>Licensee shall make the following information available to Forest Service and other meeting participants at least 30 days prior to the meeting:</p> <ul style="list-style-type: none"> • An operations plan for the year in which the meeting occurs, including planned outages. • A description of planned maintenance projects for the year in which the meeting occurs. • Any records of non-compliance with the License. • The hydrology record for the previous year, if available, including any variances. • Results of any monitoring conducted the previous year. • Safety reports, including geologic and seismic reports. • A document that tracks the status of the Section 4(e) Conditions that require action in the year in which the meeting occurs. <p>Consultation shall include, but not be limited to:</p> <ul style="list-style-type: none"> • A status report regarding implementation of license conditions. • Results of any monitoring studies performed over the previous year in formats agreed to by Forest Service and Licensee during development of implementation plans. • Review of any planned maintenance. • Discussion of any foreseeable changes to Project facilities or features. • Discussion of any necessary revisions or modifications to implementation plans approved as part of this license. • Discussion of needed protection measures for species newly listed as threatened, endangered, or sensitive, or changes to existing management plans that may no longer be warranted due to delisting of species or, to incorporate new knowledge about a species requiring protection. Discussion of needed protection measures for newly discovered cultural resource sites. • Discussion of elements of current year maintenance plans, e.g. road and trail maintenance. • Discussion of any planned pesticide use. <p>A record of the meeting shall be kept by Licensee and shall include any recommendations made by Forest Service for the protection of National Forest System lands and resources. Licensee shall file the meeting record, if requested, with the Commission no later than 60 days following the meeting.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.

52				<p>Condition No. 14 - Consultation Group: The Licensee shall, within 3 months of license issuance, establish a Consultation Group as follows.</p> <p>Purpose</p> <p>The primary purpose of Consultation Group is to provide a forum for the Licensee to consult with resource agencies and other interested parties on the following:</p> <ul style="list-style-type: none"> • The Annual Meeting as described in Condition No. 13, Consultation. To the extent topics covered in Condition No. 13 affect project-affected areas outside Forest Service jurisdiction, consultation with appropriate resource agencies on those same topics will occur at the Annual Meeting, other Consultation Group meetings, or as otherwise agreed with the Licensee and appropriate resource agencies. License shall provide copies of the meeting materials to those who request it. • Plans that are developed as required by the new license and plans that require specific consultation processes during implementation. • Proposed temporary or permanent modifications to license conditions. <p>Licensee shall also provide notification of license compliance deviations to the current members of the Consultation Group.</p> <p>Decision Making</p> <p>The Licensee will ensure that the Consultation Group reports its recommendations to the Forest Service, South Carolina Department of Natural Resources and United States Fish and Wildlife Service. The Forest Service shall be responsible for final addressing matters covered by the Section 4(e) Conditions. Other agencies shall be responsible for final decisions within their jurisdictions. Licensee shall also ensure that consultation, permitting, and any necessary approvals within the jurisdiction of other agencies are completed. Licensee shall implement license conditions as approved and directed by the Commission.</p> <p>Participation</p> <p>In addition to the Licensee, Forest Service, South Carolina Department of Natural Resources and United States Fish and Wildlife Services, Consultation Group meetings shall be open to any organization or individual that notifies the Licensee in writing of interest in participating in the Annual Meeting or Consultation Group meetings. The Consultation Group should establish mutually agreeable process guidelines for conducting effective and efficient meetings no later than 1 year after license issuance. Each organization or individual shall be responsible for providing notification information to the Licensee and shall be responsible for keeping current a single point of contact for purposes of notification related to the Consultation Group. If a participant is interested in a particular meeting or topic, the</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
	4(e) Conditions	USFS	DLA		
53				<p>Condition No. 15 - Approval of Changes: Notwithstanding any license authorization to make changes to the Project, when such changes directly affect National Forest System lands, Licensee shall obtain written approval from Forest Service prior to making any changes in any constructed Project features or facilities, or in the uses of Project lands and waters or any departure from the requirements of any approved exhibits filed with the Commission. Following receipt of such approval from Forest Service, and a minimum of 60 days prior to initiating any such changes, Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of Forest Service for such changes. Licensee shall file an exact copy of this report with Forest Service at the same time it is filed with the Commission. This condition does not relieve Licensee from the amendment or other requirements of Article 2 or Article 3 of this license.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
	4(e) Conditions	USFS	DLA		
54				<p>Condition No. 16 - Surveys, Land Corners: Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments on National Forest System lands are destroyed by an act or omission of Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of Forest Service. Further,</p> <p>Licensee shall ensure that any such official survey records affected are amended as provided by law.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
	4(e) Conditions	USFS	DLA		
55				<p>Condition No. 17 - Signs: Licensee shall consult with Forest Service prior to erecting signs related to safety issues on National Forest System lands covered by the license. Prior to Licensee erecting any other signs or advertising devices on National Forest System lands covered by the license, Licensee must obtain the approval of Forest Service as to location, design, size, color, and message. Licensee shall be responsible for maintaining all Licensee-erected signs to neat and presentable standards.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
	4(e) Conditions	USFS	DLA		
56				<p>Condition No. 18 - Invasive Species Management: Aquatic Invasive Species Management and Monitoring Plan</p> <p>Within one year of license issuance, Licensee shall develop an Aquatic Invasive Species (AIS) Plan that meets applicable State and Federal laws and regulations. The plan shall be approved by Forest Service after consultation with US Fish and Wildlife Service. The applicable State and Federal resource agencies shall be responsible for making the determination as to whether the AIS Plan complies with the State and/or Federal regulations of their respective agencies.</p> <p>Public Education Program</p> <p>The AIS Plan shall include a public education program, including appropriate signage and information pamphlets at designated public boat access. The following shall be addressed:</p> <ul style="list-style-type: none"> • Draining water from boat, motor, bilge, live well and bait containers before leaving a water access site. • Removing visible plants, animals and mud from boat before leaving waterbody. • Cleaning and drying boats and fishing equipment using accepted protocols for the prevention of all AIS before entering any waterbody area. • Disposing of unwanted bait in trash, including earthworms. • Avoiding the release of plants and animals into a waterbody unless they originally came from that waterbody. <p>AIS information shall be included on Project websites that provide public information on Project facilities. The public information website will also include information on the amphibian chytrid fungus.</p> <p>Best Management Practices</p> <p>The AIS Plan shall specify that Licensee is responsible for developing BMPs for individual Project O&M activities, performed by Licensee and/or its contractors, which activities have the potential to introduce AIS into a Project reservoir, to prevent the spread of AIS, and submitting them to Forest Service for review at the Annual Consultation Meeting required in the FERC license.</p> <p>Development of BMPs for Project activities shall include but not be limited to the following:</p> <ul style="list-style-type: none"> • List of AIS with potential to be introduced. • Control or preventive measures for AIS. • Identification of critical control points in the Project activity sequence at which to prevent the introduction of AIS. • Any necessary implementation monitoring for potential AIS to ensure BMPs are followed. • Actions that will be taken if an introduction of AIS is found. <p>If invasive aquatic species are detected within any reservoir or river, Licensee will consult with the appropriate agencies and institute an appropriate plan of action.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
	4(e) Conditions	USFS	DLA		

57	4(e) Conditions	USFS	DLA	<p>Condition No. 19 - Special Status Species: Biological Evaluations</p> <p>Before taking actions to construct new project features on National Forest System lands that may affect Forest Service special status species or their critical habitat on National Forest System land, Licensee shall prepare and submit a biological evaluation (BE) for Forest Service approval. Forest Service special status species are defined as species designated by the Regional Forester as sensitive species or species of conservation concern. The BE shall evaluate the potential impact of the action on the species or its habitat. Forest Service may require mitigation measures for the protection of the affected species on National Forest System land.</p> <p>The BE shall:</p> <ul style="list-style-type: none"> • Include procedures to minimize or avoid adverse effects to Forest Service special status species. • Ensure project-related activities shall meet restrictions included in site management plans for Forest Service special status species. • Develop implementation and effectiveness monitoring of measures taken or employed to reduce effects to special status species. <p>Annual Review of Special-Status Species Lists and Assessment of New Species on Federal Land</p> <p>Licensee shall, beginning the first full calendar year after license issuance, in consultation with Forest Service, annually review the current lists of special status species (species that are Federally Endangered or Threatened, Proposed Threatened or Endangered, Forest Service Sensitive, or Francis Marion-Sumter National Forest Watch Lists, and State Threatened or Endangered, State Species of Special Concern) that might occur on National Forest System lands, as appropriate, in the Project area that may be directly affected by Project operations.</p> <p>When a species is added to one or more of the lists, Forest Service, in consultation with Licensee shall determine if the species or un-surveyed suitable habitat for the species is likely to occur on such National Forest System lands, as appropriate. For such newly added species, if Forest Service determines that the species is likely to occur on such National Forest System lands, Licensee shall develop and implement a study plan in consultation with Forest Service to reasonably assess the effects of the project on the species. Licensee shall prepare a report on the study including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to the Forest Service for review and approval. Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Commission.</p> <p>If new occurrences of Forest Service special status species as defined above are detected prior to or during ongoing construction, operation, or maintenance of the Project or during Project operations, Licensee shall immediately notify Forest Service. If Forest Service determines that the Project-related activities are adversely affecting FS sensitive or watch list species, Licensee shall, in consultation with Forest Service, develop and implement appropriate protection measures.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
58	4(e) Conditions	USFS	DLA	<p>Condition No. 20 - Erosion and Sediment Control and Management: Within 1 year of license issuance, Licensee shall file with the Commission an Erosion and Sediment Control Management Plan developed in consultation with Forest Service and other interested parties, and approved by Forest Service that will provide direction for treating erosion and controlling sedimentation within the Project and Project-affected National Forest System lands during the term of the new license. Upon Commission approval, Licensee shall implement the Plan.</p> <p>The Plan shall include at a minimum the components included in the referenced by this condition, unless otherwise agreed to by Forest Service during Plan finalization. Minimum components include, but may not be limited to:</p> <p>Erosion Control Guidelines for Existing Project-Affected Areas</p> <ul style="list-style-type: none"> • Methods for initial and periodic inventory and monitoring of the entire Project area and Project-affected National Forest System lands to identify erosion sites and assess site condition for each. Periodic monitoring and inventory will include recording effectiveness of erosion treatment measures, and identification of new erosion sites for the term of the new license. • Criteria for ranking and treating erosion sites including a risk rating and hazard assessment for scheduling erosion treatment measures and monitoring at each site. <p>Erosion control measures that incorporate current standards, follow Forest Service regulations and guidance (e.g. LRMP, RMOs, BMPs), are customized to site-specific conditions, and approved by Forest Service:</p> <ul style="list-style-type: none"> • Develop and implement a schedule for treatment (e.g. repair, mitigate, monitor) of erosion sites, including a list of sites requiring immediate mitigation and schedule for their implementation. • Effectiveness monitoring of completed erosion control treatment measures after treatment in order to determine if further erosion control measures are needed. If erosion control measures are not effective, Licensee will implement additional erosion control measures approved by Forest Service and continue monitoring until the site has stabilized. • Protocols for emergency erosion and sediment control. • Process for documenting and reporting inventory and monitoring results including periodic plan review and revision. Documentation shall include a Forest Service compatible GIS database for maps keyed to a narrative description of detailed, site-specific, erosion treatment measures and sediment monitoring results. <p>Erosion Control Guidelines for New Construction or Non-Routine Maintenance</p> <p>Licensee shall develop site-specific temporary erosion control measures for each project to be approved by Forest Service for each project. These temporary measures will prevent erosion, stream sedimentation, dust, and soil mass movement during the period of ground disturbance until replaced by permanent measures.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
59	4(e) Conditions	USFS	DLA	<p>Condition No. 21 - Fire Management and Response Plan: Within one year of license issuance, Licensee shall complete, in consultation with Forest Service and approved by Forest Service, a Fire and Fuels Management Plan (FFMP). The plan shall set forth in detail Licensee's responsibility for the prevention (including fuels treatment), reporting, emergency response, and investigation of fires related to Project operations. Upon Commission approval, Licensee shall implement the Plan.</p> <p>Minimum components include, but may not be limited to:</p> <ul style="list-style-type: none"> • Fuels Treatment/Vegetation Management: Identification of fire hazard reduction measures and reoccurring maintenance measures to prevent the escape of project-induced fires. • Fire Prevention and Patrol: Address fire danger and public safety associated with project induced recreation, including fire danger associated with dispersed camping, existing and proposed developed recreation sites, trails, and vehicle access. Identify water drafting sites and other fire suppression resources. • Emergency Response Preparedness: Analyze fire prevention needs including equipment and personnel availability. • Reporting: Licensee shall report any project related fires immediately to Forest Service. • Fire Control/Extinguishing: Provide Forest Service a list of the locations of available fire suppression equipment and the location and availability of fire suppression personnel. 	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
60	4(e) Conditions	USFS	DLA	<p>Condition No. 22 - Annual Employee Training: Licensee shall, beginning in the first full calendar year after license issuance, annually perform employee awareness training and shall also perform such training when a staff member is first assigned to the Project. The goal of the training shall be to familiarize Licensee's operations and maintenance (O&M) staff with special-status species, noxious weeds and sensitive areas (e.g., special-status plant populations and noxious weed populations) that are known to occur within or adjacent to the Commission Project Boundary on National Forest System lands, and the procedures for reporting to each agency, as appropriate, to comply with the license requirements. It is not the intent of this measure that Licensee's O&M staff perform surveys or become specialists in the identification of special-status species or noxious weeds. Licensee shall direct its O&M staff to avoid disturbance to sensitive areas, and to advise all Licensee contractors to avoid sensitive areas. If Licensee determines that disturbance of a sensitive area is unavoidable, Licensee shall consult with Forest Service to minimize adverse effects to sensitive resources.</p> <p>This measure applies to employee training that is not otherwise covered by a specific plan.</p>	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.

61	4(e) Conditions	USFS	DLA	<p>Condition No. 23 - Non-Project Areas (Keitts Bridge Landing Enoree River Recreation Area): The licensee will coordinate with Forest Service surveyor to determine location of flowage easements and determine Project Area Boundary along with consultation with Forest Service to determine the exact location above the flowage easement in relation to the improvements.</p> <p>Licensee shall complete, in consultation with Forest Service and approved by Forest Service, a set of detailed construction plans and specifications with drawings for design and construction of a vehicle turn-around area with parking area for six vehicles and a non-motorized canoe/kayak step down facility along with hardened path from parking area to step down location. The present river access (Keitts Bridge) is very steep and unless a gentler slope can be found in the vicinity, steps will need to be designed/constructed to access the river that are sustainable and maintains bank stability. If possible the improvements to the site need to be Architectural Barriers Act compliant. Any recreational signs installed on Maybinton Road, State Hwy 45, per FERC regulations shall be designed in accordance with Forest Service regulations and approved by Forest Service.</p> <p>Before taking actions to construct new project features on National Forest System lands that may affect Forest Service special status species or their critical habitat on National Forest System land, Licensee shall prepare and submit a biological evaluation (BE) for Forest Service approval. The BE shall evaluate the potential impact of the action on the species or its habitat. Forest Service may require mitigation measures for the protection of the affected species on National Forest System land.</p> <p>The BE shall:</p> <ul style="list-style-type: none"> • Include procedures to minimize or avoid adverse effects to special status species. • Ensure project-related activities shall meet restrictions included in site management plans for special status species. • Develop implementation and effectiveness monitoring of measures taken or employed to reduce effects to special status species. <p>Licensee shall obtain a special use authorization (Organic Act Permit) from the Forest Service Cultural Resource Coordinator prior to construction of new project features on National Forest System lands that may affect Forest Service cultural resource sites. Licensee shall obtain the required special use authorization (Organic Act Permit) prior to any ground disturbing activities on National Forest System lands, and the. Licensee shall file that special use authorization with the Commission. Licensee shall prepare and submit an Archaeological Evaluation for Forest Service approval.</p> <p>The Archaeological Evaluation shall:</p> <ul style="list-style-type: none"> • Include procedures to minimize or avoid adverse effects to cultural sites. • Ensure project-related activities shall meet restrictions included in site management plans for cultural site. • Develop implementation and effectiveness monitoring of measures taken or employed to reduce adverse effects to newly discovered cultural resource sites. 	SCE&G consulted with the USFS on these preliminary 4(e) conditions. Revised, final 4(e) conditions will be issued by the USFS after the FLA is filed with FERC.
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