To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); Melanie Olds (melanie olds@fws.gov); 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);

STUTTS, BRANDON G

Subject: Revised Fairfield Entrainment Mortality Estimate Memo - Parr Relicensing

Date: Tuesday, May 30, 2017 11:19:19 AM

Attachments: Additional Mortality Analysis Fairfield Memo Final.pdf

Dear Fisheries TWC Member,

After our meetings regarding PM&E measures for the Parr Project, the SCDNR provided some additional entrainment/mortality data that should be considered in the Parr Entrainment Report. We reviewed this information and developed a memo to address the supplemental information.

Please review the memo and provide feedback. We will either have a conference call to discuss comments – or we can include this in one of the "AMP-Monitoring Plan" meetings that we are working to schedule in July.

Thanks for your review.

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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); Hall Beard (BeardH@dnr.sc.gov); Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); Melanie Olds (melanie Olds@fws.gov); 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); STUTTS, BRANDON G; Alison Jakupca; Chuck Hightower (hightocw@dhec.sc.gov); David Eargle

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Frank Henning@nps.gov; Ley, Amanda; Pace Wilber (Pace.Wilber@noaa.gov); Scott Harder; Malcolm Leaphart

(mwleapjr@att.net)

Subject: Parr Relicensing AMP/Monitoring Plan Meeting - Doodle Poll

Date: Tuesday, May 30, 2017 4:07:57 PM

Good afternoon,

We would like to schedule a 2-day meeting in July to discuss the various draft AMPs and Monitoring Plans that SCE&G has developed over the last few months. These include the West Channel AMP, Minimum Flows AMP, Downstream Flow Fluctuations AMP, Erosion Monitoring Plan, American Eel Monitoring Plan, and Mussel Monitoring Plan. At this point, you should have received all of these documents to review, except the Mussel Monitoring Plan, which is still under development with the USFWS. If you find you are missing one of these documents, please let me know and I will email you a copy.

As mentioned, we anticipate this meeting may require 2 days based on the amount of material we need to discuss. Therefore, we will reserve two days for this meeting, however, the second day may be canceled, in case discussion wraps early.

Please follow the link below to the Doodle Poll and vote for which days work best for you for this meeting.

http://doodle.com/poll/a8ap9zqdkyggbbe2

Thanks.

Kellv

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Olds, Melanie

To: Fritz Rohde - NOAA Federal

Cc: <u>Henry Mealing</u>; <u>Argentieri Bill</u>; <u>Kelly Kirven</u>

Subject: Re: Draft American Eel Monitoring Plan - Parr Project

Date: Thursday, June 01, 2017 1:11:40 PM

Henry,

I agree that the monitoring plan warrants further discussion. Fritz has articulated my same concerns over the plan, regarding sampling frequency and effort . I feel that 10 years between monitoring efforts is too long and think 5 years would be more appropriate. I also have further questions about how the "Target Threshold" was determined for increases to the sampling frequency, what is the scientific basis for 10% of the number passed at St. Stephens?

Another alternative for setting a threshold that would increase monitoring efforts would be to use a catch per unit effort (CPUE), and when that target was met, the sampling interval would be increased to every 2-3 years.

Mel

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

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

On Thu, Jun 1, 2017 at 12:48 PM, Fritz Rohde - NOAA Federal < fritz.rohde@noaa.gov> wrote:

Hi Henry:

For one, I think 10 years in between sampling is way too long given the unknowns we have coming up with eel passage - at Wilson and Pinopolis. Since annual passage at St. Stephens can vary so widely from year to year, I would recommend, at this point, at least every five years. And to be reviewed after each effort by the Fisheries TWC for potential adjustment either way? Since we have so few eel numbers to go on, I'm not confident that sampling in March is effective. We don't get good eel movement in the Roanoke River until the temp reaches 15 C and then not much until April. If the TWC agrees that 3 days per sampling event is sufficient, then I would recommend that they be spread out through April and May.

My 2 cents

Fritz

On Thu, Jun 1, 2017 at 12:32 PM, Henry Mealing < Henry.Mealing@kleinschmidtgroup.com > wrote:

Fritz.

If you have some suggestions for the level of effort, we would appreciate hearing those prior to the next meeting.

Thanks

Henry Mealing 706-339-3209

On Jun 1, 2017, at 11:49 AM, Fritz Rohde - NOAA Federal < fritz.rohde@noaa.gov> wrote:

Hi Kelly:

Thank you for the opportunity to review the draft American eel monitoring plan. I look forward to discussing our concerns at the Relicensing AMP/Monitoring Plan meeting in July.

Specifically, we have issues with the proposed frequency of sampling (once every 10 years and only 3 days per event) and Target Threshold percentage and numbers based on this small amount of sampling. The Target Threshold is also based only on St. Stephens eel passage. Complicating this is that there will be/should be eel passage at Wilson and Pinopolis dams in the reasonably foreseeable future.

We should have some lively discussion on this topic at the meeting.

Sincerely,

Fritz

NMFS-HCD Beaufort NC

On Mon, May 1, 2017 at 2:18 PM, Kelly Kirven < Kelly.Kirven@kleinschmidtgroup.com > wrote:

Good afternoon.

Attached is the Draft American Eel Monitoring Plan for the Parr Project. Please review and submit any comments or edits by Monday, May 15th.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Office: 803.462.5633

Cell: 803.917.4528

(msgentry@columbiasc.net); Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill To:

Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); Bob Perry; Brandon McCartha (Brandon.McCartha@scana.com); BRESNAHAN, AMY; Bret Hoffman; btrump@scana.com; Caleb Gaston

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Davis; Mary Maercklein (mmaercklein@fs.fed.us); Mel Jenkins (greenpalmetto@yahoo.com); Melanie Olds (melanie_olds@fws.gov); Merrill McGregor (merrillm@scccl.org); Mike Mastry (Mike.Mastry@noaa.gov); Mike McSwain (mcswain@comcast.net); Pace Wilber (Pace.Wilber@noaa.gov); Phil Gaines (pgaines@scprt.com);

Rachel Sweeney (rachel.sweeney@noaa.gov); rammarell@scana.com; Randy Mahan

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John Fantry (john@Fantrylaw.com); Corbin Johnson (Corbin.Johnson@scana.com); Bruce Halverson

Subject: Parr Relicensing Settlement Agreement Doodle Poll

Date: Thursday, June 08, 2017 2:36:14 PM

Good afternoon,

We are in the process of developing a draft Settlement Agreement for the Parr Project Relicensing and we would like to go ahead and schedule a few meetings in the August/September timeframe for reviewing this document.

Please follow the Doodle Poll link below and vote for the days that work best for your schedule. As always, we will try to accommodate as many people as possible.

http://doodle.com/poll/9acxahdrz7z2m629#table

Thanks. Kelly

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); Melanie Olds (melanie olds@fws.gov); 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);

STUTTS, BRANDON G

Subject: Final Monticello/Parr Aerial Waterfowl Survey Report

Date: Tuesday, June 13, 2017 8:44:54 AM
Attachments: SREL Waterfowl Final Report.pdf

Good morning,

Attached for your record is the final Parr and Monticello Waterfowl Report. This report will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Henry Mealing

To: Olds, Melanie; Fritz Rohde (Fritz.Rohde@noaa.gov)

Cc: Bill Argentieri - SCE&G (BArgentieri@scana.com); RAYMOND R AMMARELL (RAMMARELL@scana.com); Kelly

Kirven; Jared Porter

Subject: FW: Draft American Eel Monitoring Plan - Parr Project

Date: Monday, June 19, 2017 9:48:39 AM

Fritz and Melanie,

Thanks for the information that y'all provided on the American eel monitoring plan. I think that we are in agreement with some of the suggestions, but we also have a couple of questions for you for our discussions at the upcoming TWC Meetings in July. We can also discuss these prior to that meeting via conference call if you would like to get a jump on it. Agreements:

- We need to do some level of American eel evaluation during the new license
- We believe that a baseline survey should be performed during the 1st or 2nd year of the new license.
- We also agree that sampling in March is too early and should shift sampling efforts to April and May.
- We agree that the 3-days of sampling effort should be distributed over April and May timing could be linked to river temp or just equally spaced within the period (April 1st – April 30th – May 31st)

Areas for Resolution:

- The frequency of periodic evaluation Agencies recommend 5 years SCE&G recommends 10 years with an increase to every 5 years when a collection trigger is reached.
- What trigger do we use for increasing collection efforts?
- What trigger will USFWS and NOAA use for recommending American eel passage?

The last two "resolution" issues may be the toughest to set or agree on.

We used the American eel passage at the St. Stephen eel ramp as a benchmark for eels moving upstream, because that's the best we have. We could word our plan to incorporate any new eel passage improvements on the Santee system into that benchmark. This would address Fritz's concern about taking into account big improvements.

As for the 10% we proposed - I don't have a scientific basis for that. We were basing it on our assumption that eel passage wouldn't be requested until American eels meet a certain abundance (??) downstream of Parr Dam. We know that some eels move up the Wateree and some will move up the Congaree – don't know what the split is. We also assumed that only a portion of the eels that make it up to the Columbia Dam will also move on up to Parr Dam. So, 10% seemed like a reasonable amount before triggering an increase in the monitoring frequency, but we are open to other suggestions that might even include a percentage of a defined number based on available habitat between Columbia Hydro and Parr Dam, similar to how the Accord numbers were derived for American shad and BBH.

Melanie asked that we consider CPUE as an indicator for increasing efforts. That is a reasonable alternative, but I have no idea as to how to set those CPUE triggers. I was

concerned that the low numbers of eels at Parr tailrace now could make a CPUE change difficult to interpret. Say we catch 2 eels in the baseline surveys – and the next time we sample we catch 6. That would mean the CPUE has tripled, but does that mean we should do something different. If y'all can give us some more clarity on how that trigger would work, it would help us with using CPUE.

We are trying to structure these monitoring plans in a way that FERC can adopt them into a license article and can be carried forward in the new license – AND YET – provide some flexibility with a changing environment during the new license.

Again, Thanks for your suggestions and willingness to work this out. Look forward to you input. Henry

Henry Mealing

Fisheries Biologist / Project Manager

706-339-3209

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

Sent: Thursday, June 01, 2017 12:48 PM

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

Cc: Argentieri Bill <<u>BArgentieri@scana.com</u>>; Kelly Kirven <<u>Kelly.Kirven@KleinschmidtGroup.com</u>>;

Melanie Olds < melanie_olds@fws.gov >

Subject: Re: Draft American Eel Monitoring Plan - Parr Project

Hi Henry:

For one, I think 10 years in between sampling is way too long given the unknowns we have coming up with eel passage - at Wilson and Pinopolis. Since annual passage at St. Stephens can vary so widely from year to year, I would recommend, at this point, at least every five years. And to be reviewed after each effort by the Fisheries TWC for potential adjustment either way? Since we have so few eel numbers to go on, I'm not confident that sampling in March is effective. We don't get good eel movement in the Roanoke River until the temp reaches 15 C and then not much until April. If the TWC agrees that 3 days per sampling event is sufficient, then I would recommend that they be spread out through April and May.

My 2 cents

Fritz

On Thu, Jun 1, 2017 at 12:32 PM, Henry Mealing < Henry.Mealing@kleinschmidtgroup.com > wrote:

Fritz

If you have some suggestions for the level of effort, we would appreciate hearing those prior to the next meeting.

Thanks

Henry Mealing <u>706-339-3209</u>

On Jun 1, 2017, at 11:49 AM, Fritz Rohde - NOAA Federal < fritz.rohde@noaa.gov> wrote:

Hi Kelly:

Thank you for the opportunity to review the draft American eel monitoring plan. I look forward to discussing our concerns at the Relicensing AMP/Monitoring Plan meeting in July.

Specifically, we have issues with the proposed frequency of sampling (once

every 10 years and only 3 days per event) and Target Threshold percentage and numbers based on this small amount of sampling. The Target Threshold is also based only on St. Stephens eel passage. Complicating this is that there will be/should be eel passage at Wilson and Pinopolis dams in the reasonably foreseeable future.

We should have some lively discussion on this topic at the meeting. Sincerely,

Fritz

NMFS-HCD

Beaufort NC

On Mon, May 1, 2017 at 2:18 PM, Kelly Kirven

< Kelly.Kirven@kleinschmidtgroup.com > wrote:

Good afternoon,

Attached is the Draft American Eel Monitoring Plan for the Parr Project.

Please review and submit any comments or edits by Monday, May 15th.

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator

Office: 803.462.5633 Cell: 803.917.4528

From: <u>Henry Mealing</u>

To: Kelly Kirven; Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); Chad Altman (altmankc@dhec.sc.gov); Dick Christie (christied@dnr.sc.gov); Fritz Rohde@noaa.gov); Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon (mixong@dnr.sc.gov); Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Lorianne Riggin (RigginL@dnr.sc.gov); Melanie Olds (melanie olds@fws.gov); rammarell@scana.com; Randy Mahan (rmahan@sc.rr.com); Robert Stroud (StroudR@dnr.sc.gov); Ron Ahle; Sam Stokes (stokess@dnr.sc.gov); STUTTS, BRANDON G; Alison Jakupca; Charlene Coleman

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(kakustafik@columbiasc.net); Mark Davis; Merrill McGregor (merrillm@scccl.org); tboozer@scana.com; William

Hendrix (HendrixWB@dot.state.sc.us)

Subject: RE: Documents and Agenda for AMP/MP Meeting - Parr Relicensing

Date: Thursday, June 22, 2017 10:50:00 AM

Attachments: image002.png

In addition to these documents Kelly sent out. We are working on:

1. draft Mussel Monitoring Plan with USFWS

2. response to the TWC Minimum flow recommendations

We hope to have both of these out to you for review at least a week prior to our July 13th meeting.

Thanks,

Henry Mealing

Kleinschmidt

From: Kelly Kirven

Sent: Thursday, June 22, 2017 10:38 AM

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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); Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); Melanie Olds (melanie_olds@fws.gov); 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); STUTTS, BRANDON G; Alison Jakupca; Charlene Coleman (cheetahtrk@yahoo.com); Chris Johnston (JohnstonWC@gmail.com); Chuck Hightower (hightocw@dhec.sc.gov); David Eargle (eargleda@dhec.sc.gov); Dick Christie (dchristie@comporium.net); Frank_Henning@nps.gov; Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jay Maher; Jon Durham (jondurham@bellsouth.net); Kelly Kirven; Ley, Amanda; Malcolm Leaphart (mwleapjr@att.net); Mark Caldwell (mark_caldwell@fws.gov); Mel Jenkins (greenpalmetto@yahoo.com); Pace Wilber (Pace.Wilber@noaa.gov); QUATTLEBAUM, MILTON; Rusty Wenerick (weneriwr@dhec.sc.gov); Scott Castleberry (castlews@dhec.sc.gov); Scott Harder; Wayne and Ginny Boland (wayneboland@bellsouth.net); Brandon Kulik; Corbin

Johnson (Corbin.Johnson@scana.com); Brandon McCartha (Brandon.McCartha@scana.com); btrump@scana.com; CHASTAIN, WILLIAM K JR; Dan Adams (John.Adams@scana.com); Edye Joyner; Erich Miarka (erich.miarka@gillscreekwatershed.org); Jeff Carter (jmcarter00@sc.rr.com); Joe Wojcicki; John Fantry (john@Fantrylaw.com); Karen Swank Kustafik (kakustafik@columbiasc.net); Mark Davis; Merrill McGregor (merrillm@scccl.org); tboozer@scana.com; William Hendrix (HendrixWB@dot.state.sc.us)

Subject: Documents and Agenda for AMP/MP Meeting - Parr Relicensing Good morning,

In preparation for our Adaptive Management Plan (AMP) and Monitoring Plan (MP) meetings scheduled for July 13th and 18th, we have revised several of the documents we will be discussing based on stakeholder comments. These documents are attached to this email and include the Downstream Flow Fluctuations AMP, the West Channel AMP, and the American Eel Monitoring Plan. Edits are shown in track changes.

Also attached is the agenda for the meetings. We plan to cover as many items on the agenda as possible on Thursday, July 13^{th} . Any items not discussed on the 13^{th} will be covered on Tuesday, July 18^{th} .

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator

Kleinschmidt Office: 803.462.5633 Cell: 803.917.4528

From: ARGENTIERI, WILLIAM R

To: "Fritz Rohde - NOAA Federal"

Cc: Olds, Melanie; AMMARELL, RAYMOND R; Kelly Kirven; Jared Porter; Henry Mealing

Subject: RE: Draft American Eel Monitoring Plan - Parr Project

Date: Tuesday, June 27, 2017 12:58:46 PM

Thanks Fritz for the additional information. Let us discuss this internally and we will be prepared to talk about it on July 13 or 18. If we need any clarifications, we'll get back in touch with you.

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

Sent: Tuesday, June 27, 2017 12:05 PM

To: Henry Mealing

Cc: Olds, Melanie; ARGENTIERI, WILLIAM R; AMMARELL, RAYMOND R; Kelly Kirven;

Jared Porter

Subject: Re: Draft American Eel Monitoring Plan - Parr Project

***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 Henry:

I am looking forward to discussing how to come up with threshhold/trigger numbers for eels at Parr Shoals.

It was before my time but at the Roanoke Rapids/Gaston project in North Carolina, the final fish passage article set a threshold of 150 eels collected at the base of the upstream Gaston Dam to trigger design and construction of upstream eel passage- in years 8 and 9 (2011 and 2012). "The threshold number of 150 eels may be modified by members of the DFRTAC (Diadromous Fish Restoration Technical Advisory Committee) through its decision-making and dispute resolution procedures, based on experience gained while sampling the base of Roanoke Rapids Dam in years 1 through 5."

The numbers at Gaston Dam so far are below. Based on the low numbers in first 6 years, the DFRTAC has deferred design of the eelway, even though the 150 threshold was reached in 2015. The adaptive management approach at Roanoke Rapids has worked with this issue as well as American shad passage and I would like to see something similar written into the plan.

Year

2010 - 1

2011 - 25

2012 - 48

2013 - 79

2014 - 124

2015 - 286

2016 - 872

2017 - to date - 1,123

Fritz

On Mon, Jun 26, 2017 at 2:33 PM, Henry Mealing

<Henry.Mealing@kleinschmidtgroup.com> wrote:

Ok. If y'all have thoughts or input before the meeting on July 13, let me know.

Henry Mealing 706-339-3209

On Jun 26, 2017, at 2:27 PM, Fritz Rohde - NOAA Federal < fritz.rohde@noaa.gov> wrote:

Hi Henry:

Sorry for the delay. Some good points to discuss - I prefer to wait until the full group meets to go over them.

Thanks

Fritz

On Mon, Jun 19, 2017 at 9:48 AM, Henry Mealing

< Henry. Mealing@kleinschmidtgroup.com > wrote:

Fritz and Melanie,

Thanks for the information that y'all provided on the American eel monitoring plan. I think that we are in agreement with some of the suggestions, but we also have a couple of questions for you for our discussions at the upcoming TWC Meetings in July. We can also discuss these prior to that meeting via conference call if you would like to get a jump on it.

Agreements:

- We need to do some level of American eel evaluation during the new license
- We believe that a baseline survey should be performed during the 1st or 2nd year of the new license.
- We also agree that sampling in March is too early and should shift sampling efforts to April and May.
- We agree that the 3-days of sampling effort should be distributed over April and May – timing could be linked to river temp or just equally spaced within the period (April 1st – April 30th – May 31st)

Areas for Resolution:

- The frequency of periodic evaluation Agencies recommend 5 years SCE&G recommends 10 years with an increase to every 5 years when a collection trigger is reached.
- What trigger do we use for increasing collection efforts?
- What trigger will USFWS and NOAA use for recommending American eel passage?

The last two "resolution" issues may be the toughest to set or agree on. We used the American eel passage at the St. Stephen eel ramp as a benchmark for eels moving upstream, because that's the best we have. We could word our plan to incorporate any new eel passage improvements on the Santee system into that benchmark. This would address Fritz's concern about taking into account big improvements.

As for the 10% we proposed - I don't have a scientific basis for that. We were basing it on our assumption that eel passage wouldn't be requested until American eels meet a certain abundance (??) downstream of Parr Dam. We know that some eels move up the Wateree and some will move up the Congaree – don't know what the split is. We also assumed that only a portion of the eels that make it up to the Columbia Dam will also move on up to Parr Dam. So, 10% seemed like a reasonable amount before triggering an increase in the monitoring frequency, but we are open to other suggestions that might even include a percentage of a defined number based on available habitat

between Columbia Hydro and Parr Dam, similar to how the Accord numbers were derived for American shad and BBH.

Melanie asked that we consider CPUE as an indicator for increasing efforts. That is a reasonable alternative, but I have no idea as to how to set those CPUE triggers. I was concerned that the low numbers of eels at Parr tailrace now could make a CPUE change difficult to interpret. Say we catch 2 eels in the baseline surveys – and the next time we sample we catch 6. That would mean the CPUE has tripled, but does that mean we should do something different. If y'all can give us some more clarity on how that trigger would work, it would help us with using CPUE.

We are trying to structure these monitoring plans in a way that FERC can adopt them into a license article and can be carried forward in the new license – AND YET – provide some flexibility with a changing environment during the new license.

Again, Thanks for your suggestions and willingness to work this out. Look forward to you input.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

706-339-3209

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

Sent: Thursday, June 01, 2017 12:48 PM

To: Henry Mealing < Henry.Mealing@KleinschmidtGroup.com>; Kelly Kirven Kelly.Kirven@KleinschmidtGroup.com>; Melanie Olds melanie_olds@fws.gov>

Subject: Re: Draft American Eel Monitoring Plan - Parr Project Hi Henry:

For one, I think 10 years in between sampling is way too long given the unknowns we have coming up with eel passage - at Wilson and Pinopolis. Since annual passage at St. Stephens can vary so widely from year to year, I would recommend, at this point, at least every five years. And to be reviewed after each effort by the Fisheries TWC for potential adjustment either way? Since we have so few eel numbers to go on, I'm not confident that sampling in March is effective. We don't get good eel movement in the Roanoke River until the temp reaches 15 C and then not much until April. If the TWC agrees that 3 days per sampling event is sufficient, then I would recommend that they be spread out through April and May.

My 2 cents

Fritz

On Thu, Jun 1, 2017 at 12:32 PM, Henry Mealing

<Henry.Mealing@kleinschmidtgroup.com> wrote:

Fritz.

If you have some suggestions for the level of effort, we would appreciate hearing those prior to the next meeting.

Thanks

Henry Mealing 706-339-3209

On Jun 1, 2017, at 11:49 AM, Fritz Rohde - NOAA Federal

<<u>fritz.rohde@noaa.gov</u>> wrote:

Hi Kelly:

Thank you for the opportunity to review the draft American eel monitoring plan. I look forward to discussing our concerns at the Relicensing AMP/Monitoring Plan meeting in July. Specifically, we have issues with the proposed frequency of sampling (once every 10 years and only 3 days per event) and Target Threshold percentage and numbers based on this small amount of sampling. The Target Threshold is also based only on St. Stephens eel passage. Complicating this is that there will be/should be eel passage at Wilson and Pinopolis dams in the reasonably foreseeable future.

We should have some lively discussion on this topic at the meeting.

Sincerely,

Fritz

NMFS-HCD

Beaufort NC

On Mon, May 1, 2017 at 2:18 PM, Kelly Kirven

< Kelly.Kirven@kleinschmidtgroup.com > wrote:

Good afternoon,

Attached is the Draft American Eel Monitoring Plan for the Parr Project. Please review and submit any comments or edits by Monday, May 15th.

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator Office: 803.462.5633

Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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);

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(kakustafik@columbiasc.net); Mark Davis; Merrill McGregor (merrillm@scccl.org); tboozer@scana.com; William

Hendrix (HendrixWB@dot.state.sc.us); Bret Hoffman; Bruce Halverson

Subject: Parr Minimum Flow Comparison Memo Date: Thursday, June 29, 2017 8:37:51 AM

Attachments: 2017-06-29 Parr Min Flow Comparison Memo DRAFT to TWC.docx

Good morning all,

Attached is a memo that compares SCE&G and stakeholder minimum flow recommendations for the Parr Project. This memo was developed in response to the Downstream Flow and Project Operation Recommendations of Agencies and Conservation Organizations, May 17, 2017.

SCE&G requests that you review their proposal and take some time to discuss this amongst yourselves prior to the July 13th AMP meeting. Please be prepared to discuss this proposal on July 13th.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt
Office: 803.462.5633
Cell: 803.917.4528

From: <u>Bill Marshall</u>

To: Kelly Kirven; Alex Pellett; Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Stangler

(CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); Chad Altman

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(melanie_olds@fws.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan

(rmahan@sc.rr.com); Robert Stroud; Ron Ahle; Sam Stokes Jr.; STUTTS, BRANDON G

Subject: RE: Revised Fairfield Entrainment Mortality Estimate Memo - Parr Relicensing

Date: Friday, June 30, 2017 6:52:57 PM

Hi Kellv.

We appreciate the time and effort given to produce the additional entrainment mortality analysis for Fairfield. Here, below, I have a few comments of response from SCDNR.

In the initial Parr-Fairfield entrainment mortality analysis the EPRI database was used to estimate survival (as described in Entrainment Memo 4). Data from five studies (5 hydro projects) was used in the analysis and did not include data from the Jocassee hydro project. I think what SCDNR had in mind when we suggested using the Jocassee study for a revised estimation of mortality, was for Jocassee survival rates to be included with the EPRI data of the initial five projects. The survival rates from the Jocassee study, when averaged with the survival rates of the other five studies, would produce another mortality estimate for Fairfield, which we expected would be lower than the estimates presented in the current final entrainment report.

At this point, I think we are okay with the range of estimates that have been calculated at the project and will be interested in moving forward to consider ways to reduce fish mortality at Fairfield, whatever the actual numbers may be.

Thanks again for the information and for consideration of these issues and concerns.

Bill Marshall

SCDNR

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

Sent: Tuesday, May 30, 2017 11:19 AM

To: Alex Pellett; Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall; Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); 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 Kirven; Lorianne Riggin; Melanie Olds (melanie_olds@fws.gov); rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com); randy mahan (rmahan@sc.rr.com); Robert Stroud; Ron Ahle; Sam Stokes Jr.; STUTTS, BRANDON G

Subject: Revised Fairfield Entrainment Mortality Estimate Memo - Parr Relicensing Dear Fisheries TWC Member,

After our meetings regarding PM&E measures for the Parr Project, the SCDNR provided some additional entrainment/mortality data that should be considered in the Parr Entrainment Report. We reviewed this information and developed a memo to address the supplemental information. Please review the memo and provide feedback. We will either have a conference call to discuss comments – or we can include this in one of the "AMP-Monitoring Plan" meetings that we are working to schedule in July.

Thanks for your review.

Kelly

Kelly Miller Kirven Regulatory Coordinator

KleinschmidtOffice: 803.462.5633
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 $\underline{www.KleinschmidtGroup.com}$

From: Henry Mealing

To: Kelly Kirven; Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston (caleb.gaston@scana.com); Chad Altman (altmankc@dhec.sc.gov); Chuck Hightower (hightocw@dhec.sc.gov);

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Hendrix (HendrixWB@dot.state.sc.us); Corbin Johnson (Corbin.Johnson@scana.com)

Subject: RE: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 2 of 2

Date: Friday, July 07, 2017 11:22:27 AM

Attachments: image002.png

Parr Stakeholders, just a few comments/thoughts,

Thanks to Kelly for the updates. We wanted to make sure that all of the information we are going to discuss on July 13th and 18th is available to the Parr Relicensing Stakeholders. We have received edits and input from several of you that was adopted into these documents. There are 2 new documents that we will also be discussing – the Mussel Monitoring Plan and the Hydroacoustic Work Plan. We have been working with USFWS to develop this latest version of a Draft Mussel Monitoring Plan. The Hydroacoustic work Plan was developed by SCE&G, Aquacoustics, and Kleinschmidt to work towards a PME for fish entrainment reduction.

We will be working through these documents at the meeting to hopefully develop final AMPs/Monitoring Plans/PME measures to include in the Settlement Agreement, which we will begin developing next month (August). Remember that we have about 10 months left before we submit the Final License Application and would like to be able to submit as complete a package as possible to FERC at that time.

I also want to thank each one of you for your commitment to working with SCE&G in developing each of these documents/plans/PME measures. It is really coming together as a very positive relicense package.

Henry

Kleinschmidt Associates

From: Kelly Kirven

Sent: Friday, July 07, 2017 11:04 AM

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.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 (gjobsis@americanrivers.org); Greg Mixon (mixong@dnr.sc.gov); Henry Mealing; Jay Maher; Jim Glover (gloverjb@dhec.sc.gov); Kelly Kirven;

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Subject: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 2 of 2 Good morning,

Attached to this email are the remaining documents that we will be discussing on July 13^{th} and 18^{th} . These documents are:

- Draft Erosion MP
- Draft Mussel MP NEW
- Entrainment Additional Mortality Analysis Memo
- Entrainment/Hydroacoustic Work Plan NEW
- Turbine Venting Plan
- Monticello Habitat Enhancement PME

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Kelly Kirven
To: Jeffrey Carter

Cc: ARGENTIERI, WILLIAM R; Henry Mealing; Kelly Kirven

Subject: RE: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 1 of 2

Date: Monday, July 10, 2017 9:32:09 AM

Good morning Mr. Carter,

The last item on the agenda refers to an edit that was made to the Recreation Management Plan (RMP) regarding the Enoree River Bridge Recreation Site. After we sent the RMP out for stakeholder review on May 1, 2017, we realized that we needed to make a note in the document that states completion of the recreation site enhancements at the Enoree River Bridge site is dependent upon approval from the US Forest Service. A portion of the site is located on US Forest Service land, so SCE&G will need to work with them prior to installing any enhancements.

I hope this helps. If you have any more questions, just let me know. After the meetings, I will send out notes as always, so anyone who is not able to attend is aware of everything that was discussed. Thanks.

Kelly

Kelly Miller Kirven Regulatory Coordinator

Kleinschmidt Office: 803.462.5633 Cell: 803.917.4528

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From: Jeffrey Carter [mailto:jmcarter00@sc.rr.com]

Sent: Monday, July 10, 2017 8:14 AM

To: Kelly Kirven

Subject: Re: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 1 of 2

Kelly, I will not be able to attend this meeting but could you provide some color as to the last agenda

item concerning the Enoree River Bridge site?

Thanks Jeff

Sent from my iPhone

On Jul 7, 2017, at 11:03 AM, Kelly Kirven < <u>Kelly.Kirven@KleinschmidtGroup.com</u> > wrote:

Good morning,

In preparation for our AMP/MP meetings, scheduled for July 13th and 18th, we wanted to send out the most recent versions of the documents we will be discussing, along with two new documents. Due to the amount and size of the documents, I will be sending these in two separate emails. Attached to this email are the following:

- AMP/MP meeting agenda
- Draft Min Flow AMP
- Min Flow Comparison memo
- Draft Downstream Flow Fluctuation AMP
- Draft West Channel AMP

• Draft American Eel MP

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator Office: 803.462.5633 Cell: 803.917.4528

- <2017-06-19 Parr Min Flow AMP_DRAFT for AMP Meeting.docx>
- <2017-06-29 Parr Min Flow Comparison Memo DRAFT to TWC.docx>
- <2017-06-19 Downstream Flow Fluc AMP Draft for AMP Meeting.docx>
- <2017-06-22 Parr West Channel AMP Draft for AMP Meeting.docx>
- <6-20-2017 Draft American Eel Monitoring Plan for MP Meeting.docx>

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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Hendrix (HendrixWB@dot.state.sc.us); Bret Hoffman; Bruce Halverson

Subject: Draft Settlement Agreement - Parr Relicensing

Date: Monday, July 17, 2017 2:05:23 PM

Attachments: 2017-07-17 DRAFT Parr Settlement Agreement draft to stakeholders.docx

2017-07-17 SA Appendix A DRAFT to stakeholders.docx 2017-07-17 SA Appendix B DRAFT to stakeholders.docx 2017-07-17 SA Appendix D DRAFT to stakeholders.docx

Good afternoon all.

Attached are the draft Settlement Agreement and associated appendices for the Parr Relicensing Project. Please review and be prepared to discuss at our Settlement Agreement meetings, scheduled for August 1st. 10th and 30th.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Henry Mealing

To: Kelly Kirven; 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);

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Hendrix (HendrixWB@dot.state.sc.us); Bruce Halverson; Jared Porter

Subject: Potential Downstream Flow Verification Observations

Date: Thursday, July 20, 2017 10:54:40 AM

Attachments: 1,000 CFS Observation Flow Schedule - Parr Min Flow.docx

image001.png

Good Afternoon,

At the end of the meeting on July 18th, I handed out a draft of a proposed way to observe the 1,000 cfs flow at each of the IFIM study sites in the Broad River downstream of Parr Dam. During a quick discussion with stakeholders on hand, we identified that it may not be necessary to look at each site, but only a subsample that included "key" areas.

I have attached the Observation Proposal for each of you to review and give me your feedback on which sites/transects would be most valuable for observation. You can send me your thoughts via email or share them with me at the our next meeting on August 1st.

We will develop a schedule based on your input and on the current and historic flow patterns in the river. It may be best to perform observation during this September so that SCE&G can provide a steady 1,000 cfs flow for extended periods of time.

Thanks for your input.

Henry

Henry Mealing
Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane Suite 301 Lexington, SC 29072 706-339-3209 www.KleinschmidtGroup.com Providing **practical** solutions for **complex** problems affecting energy, water, and the environment

From: Olds, Melanie
To: Kelly Kirven

Subject: Re: draft AMP meeting notes - Parr Relicensing

Date: Friday, August 04, 2017 9:55:50 AM

Attachments: draft 071817 JointRCG AMP2 notes 7-26 FWSedits.doc

draft 071317 JointRCG AMP1 notes 7-26 FWSedits.doc

Hi Kelly,

Here are my edits.

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

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

On Thu, Aug 3, 2017 at 8:55 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Good morning,

Attached are the draft notes from the AMP meetings held on Thursday, July 13th and Tuesday, July 18th. Please review and send me any comments or edits by Thursday, August 17th.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

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);

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(Corbin.Johnson@scana.com)

Subject: August 10 - Parr Relicensing Settlement Agreement Meeting Agenda

Date: Monday, August 07, 2017 4:12:21 PM
Attachments: Final CRSA2 Meeting Agenda 8-10-17.docx

Good afternoon all,

Attached is an agenda for our Settlement Agreement meeting this Thursday, August 10th. If you have not already done so, please RSVP so that I can plan for lunch.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: <u>Henry Mealing</u>

To: Kelly Kirven; 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);

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Hendrix (HendrixWB@dot.state.sc.us); Bruce Halverson; Jared Porter

Subject: RE: Potential Downstream Flow Verification Observations

Date: Thursday, August 10, 2017 4:20:28 PM

Attachments: 1,000 CFS Observation Flow Schedule - Parr Min Flow.docx

image001.png

RCG members,

I am resending this Flow Verification Plan for you to look over. Please send me a list of the transects that you would like to see. I will change this up to try and meet individual needs. It looks like we will be scheduling this for October 2017.

Henry

Henry Mealing

From: Henry Mealing

Sent: Thursday, July 20, 2017 10:54 AM

To: Kelly Kirven; 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 (cheetahtrk@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); J. Hagood Hamilton Jr. (jhamilton@scana.com); Jim Glover (gloverjb@dhec.sc.gov); Jon Durham (jondurham@bellsouth.net); Lorianne Riggin (RigginL@dnr.sc.gov); Malcolm Leaphart (mwleapjr@att.net); Mark Caldwell (mark_caldwell@fws.gov); Mel Jenkins (greenpalmetto@yahoo.com); Melanie Olds (melanie olds@fws.gov); 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; STUTTS, BRANDON G; Wayne and Ginny Boland (wayneboland@bellsouth.net); Alison Jakupca; BRESNAHAN, AMY; Ley, Amanda; Alison Jakupca; Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Robert Stroud (StroudR@dnr.sc.gov); Dick Christie (dchristie@comporium.net); QUATTLEBAUM, MILTON; Corbin Johnson (Corbin.Johnson@scana.com); Brandon McCartha (Brandon.McCartha@scana.com);

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Subject: Potential Downstream Flow Verification Observations

Good Afternoon,

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Thanks for your input.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

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Providing **practical** solutions for **complex** problems affecting energy, water, and the environment

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Hendrix (HendrixWB@dot.state.sc.us)

Subject: Parr West Channel AMP - Revised Draft

Date: Thursday, August 17, 2017 11:01:24 AM

Good morning all,

Attached is a revised draft of the Parr West Channel AMP. Please see edits in Sections 3.0 and 5.0.

SCE&G feels that the wording in Section 3.0 was changed to a point that it no longer reflected what was agreed to when this AMP was initially developed. SCE&G wants to make sure the AMP captures what actions were agreed to by the group and that future representatives of the agencies and NGOs don't try to impose additional field changes to achieve their criteria for an enhanced aquatic habitat.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt
Office: 803,462,5633

Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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(Corbin.Johnson@scana.com); Bret Hoffman; Bruce Halverson

Subject: Final Parr AMP Meeting Notes - 7/13/17 and 7/18/17

 Date:
 Monday, August 21, 2017 10:41:53 AM

 Attachments:
 final_071317 JointRCG_AMP1_notes.pdf

 final_071817 JointRCG_AMP2_notes.pdf

Good morning,

Attached for your record are the final notes from the AMP meetings held on July 13th and July 18th. These notes will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

To:

Melanie Olds (melanie olds@fws.gov); Rusty Wenerick (weneriwr@dhec.sc.gov); Pace Wilber (Pace.Wilber@noaa.gov); Fritz Rohde - NOAA Federal; Dick Christie (christied@dnr.sc.gov); Dick Christie

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(Corbin.Johnson@scana.com); Caleb Gaston (caleb.gaston@scana.com); STUTTS, BRANDON G; Henry Mealing;

Alison Jakupca; Kelly Kirven

Subject: Draft Parr CRSA Meeting #2 Notes - 8/10/17 Date: Tuesday, August 22, 2017 10:36:32 AM Attachments: draft 081017 JointRCG CRSA2 notes 8-22.doc

Good morning,

Attached are the draft notes from the second Parr CRSA meeting held on August 10th. Please review and send me any comments or edits by Tuesday, September 5th.

Thanks, Kelly

Cc:

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Gerrit Jobsis

To: Bill Marshall; Kelly Kirven; Melanie Olds (melanie olds@fws.gov); Rusty Wenerick (weneriwr@dhec.sc.gov); Pace

Wilber (Pace.Wilber@noaa.gov); Fritz Rohde - NOAA Federal; Dick Christie; Dick Christie (dchristie@comporium.net); Ron Ahle; Bill Stangler (CRK@congareeriverkeeper.org)

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(Corbin.Johnson@scana.com); Caleb Gaston (caleb.gaston@scana.com); STUTTS, BRANDON G; Henry Mealing;

Alison Jakupca

Subject: RE: Draft Parr CRSA Meeting #2 Notes - 8/10/17

Date: Tuesday, September 05, 2017 5:01:38 PM

Attachments: draft 081017 JointRCG CRSA2 notes 8-22 (marshallSCDNR-edits).doc

Bill,

Thanks for your clarifying comments. I added a minor edit at the end of page 6.

Gerrit

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

Outside magazine named American Rivers one of the best groups to support in 2017. Donate today at www.AmericanRivers.org/Donate

From: Bill Marshall [mailto:MarshallB@dnr.sc.gov] Sent: Tuesday, September 05, 2017 12:57 PM

To: Kelly Kirven; Melanie Olds (melanie_olds@fws.gov); Rusty Wenerick (weneriwr@dhec.sc.gov); Pace

Wilber (Pace.Wilber@noaa.gov); Fritz Rohde - NOAA Federal; Dick Christie; Dick Christie

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(Corbin.Johnson@scana.com); Caleb Gaston (caleb.gaston@scana.com); STUTTS, BRANDON G; Henry
Mealing; Alison Jakupca

Subject: RE: Draft Parr CRSA Meeting #2 Notes - 8/10/17

Hi Kelly, within the attachment are my suggested edits to notes for the Aug 10, 2017 meeting.

Bill Marshall

Thanks.

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

Sent: Tuesday, August 22, 2017 10:37 AM

To: Melanie Olds (melanie_olds@fws.gov) <melanie_olds@fws.gov>; Rusty Wenerick (weneriwr@dhec.sc.gov) <weneriwr@dhec.sc.gov>; Pace Wilber (Pace.Wilber@noaa.gov) <Pace.Wilber@noaa.gov); Fritz Rohde - NOAA Federal fritz.rohde@noaa.gov); Dick Christie ChristieD@dnr.sc.gov); Dick Christie (dchristie@comporium.net) dchristie@comporium.net); Bill Marshall MarshallB@dnr.sc.gov); Ron Ahle AhleR@dnr.sc.gov); Gerrit Jobsis

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< <u>Henry.Mealing@KleinschmidtGroup.com</u>>; Alison Jakupca

<a href="mailto:<a href="mailto: <a href="m

Subject: Draft Parr CRSA Meeting #2 Notes - 8/10/17

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Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator *Kleinschmidt*

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(Corbin.Johnson@scana.com); Bret Hoffman; Bruce Halverson

Subject: Final Parr CRSA Meeting Notes - 8/1/17 and 8/10/17

Date:Tuesday, September 05, 2017 7:53:11 PMAttachments:final 080117 JointRCG CRSA1 notes.pdf

final 081017 JointRCG CRSA2 notes.pdf

Good evening all,

Attached for your record are the final notes from the Parr CRSA meetings 1 and 2, held on August 1st and August 10th, respectively. These notes will also be available on 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 Kirven; Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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Hendrix (HendrixWB@dot.state.sc.us); Bruce Halverson; Jared Porter

Subject: RE: Potential Downstream Flow Verification Observations

Date: Tuesday, September 12, 2017 10:46:50 AM

Attachments: 1,000 CFS Observation Flow Schedule - Parr Min Flow.docx

image001.png

Good Morning,

At the end of our last RCG meeting, we decided to try and observe the 1,000 cfs flow at each of the IFIM study sites in the Broad River downstream of Parr Dam during October following the proposal we sent out. We are working with Parr Operations to set up a series of dates for the observations. We are not sure at this point is we will have all of the observation dates in one week or will need to spread them out over a two week period. This is really dependent on the flows coming from upstream and the limited storage that Parr Reservoir has.

We still plan to do 1 day of driving to multiple access sites to view the IFIM transects, 1 day of observations/boating at the navigation transects, and 1 day of boating around the lower islands. See the attached plan.

I will be out of the office until the end of September so you will be seeing emails from Jordan or Jared at Kleinschmidt for selecting observations dates.

Hope everyone made it through the storm yesterday safely. Thanks for you cooperation.

Henry

Henry Mealing
Fisheries Biologist / Project Manager

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From: Henry Mealing

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<u>Hendrix (HendrixWB@dot.state.sc.us);</u> <u>Bruce Halverson;</u> <u>Jared Porter</u>

Subject: Parr Project - Potential Dates for Resolution of Settlement Agreement

Date: Wednesday, September 13, 2017 3:12:22 PM

Attachments: image001.png

Good Afternoon RCG Member,

Over the last couple of months, we have made significant strides in finalizing the Settlement Agreement for the Parr Project. In order to keep that momentum going, we would like to suggest several potential dates for our next meeting(s) to finish those discussions.

Bill Argentieri has tentatively reserved the Lake Murray Training Center for the following days in November and December.

November 7, 9, 14, 16, 28, 29 and 30 December 5, 6, 13 and 14

The selection of specific meeting dates will be based in part on the timing of the agencies and NGO's to review the HEP proposal and send any suggested changes to SCE&G Management for review.

Kelly Kirven will send out a Doodle Poll for the next series of meetings once we have the HEP review and other follow up information. I just wanted to get some potential dates out on your calendars so that you might be able to begin planning for these meetings.

Thanks again.

Henry

Henry Mealing
Fisheries Biologist / Project Manager

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To:

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btrump@scana.com; Corbin Johnson (Corbin.Johnson@scana.com); Caleb Gaston (caleb.gaston@scana.com);

STUTTS, BRANDON G; Henry Mealing; Alison Jakupca; Kelly Kirven

Subject: Draft Parr CRSA #3 Meeting Notes - 8/30/17 Date: Tuesday, September 26, 2017 8:50:21 AM Attachments: draft 083017 JointRCG CRSA3 notes 9-12.doc

Good morning,

Attached are the draft notes from the Parr CRSA meeting held on August 30th. Please review and send me any comments or edits by Monday, October 9th.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall To:

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Sam Stokes (stokess@dnr.sc.gov); Scott Castleberry (castlews@dhec.sc.gov); STUTTS, BRANDON G

Subject: Revised Parr RTE Assessment Report Date: Monday, October 02, 2017 9:59:49 AM

Good morning all,

The Parr Hydroelectric Project Rare, Threatened, and Endangered Species Assessment Report was revised to include additional information on the expanded known range of the Northern long-eared bat in South Carolina and voluntary conservation measures suggested by USFWS. The revised report is attached for your record and will also be available on the Project website at www.parrfairfieldrelicensing.com.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt Office: 803.462.5633

Cell: 803.917.4528

From: Bill Marshall

To: Bill Argentieri; RAMMARELL (rammarell@scana.com); Henry Mealing; Kelly Kirven; Alison Jakupca
Cc: Gerrit Jobsis; Olds, Melanie; Pace Wilber - NOAA Federal; Fritz Rohde - NOAA Federal; Rusty Wenerick

(weneriwr@dhec.sc.gov); crk@congareeriverkeeper.org; Dick Christie; Ron Ahle; Lorianne Riggin

 Subject:
 HEP proposal of Parr stakeholders 2017-10-02

 Date:
 Monday, October 02, 2017 5:14:41 PM

 Attachments:
 2017-10-02 HEP Stakeholder Proposal Parr.docx

HEP funding regressions 2017-10-02.xlsx PARR HEP Proposed Boundary.pdf

Bill and all,

Attached is the HEP proposal (Word doc) developed by Parr stakeholders as a follow-up response to the discussions of our last Parr relicensing meeting of August 30, 2017. This proposal includes two supporting attachments, the Excel sheet and PDF map, also included with this email. Please let us know if you have questions about these attachments and the information presented within. We'll look forward to continuing our collaborative efforts with you all to refine this and other aspect of the proposed CRSA.

Thanks,

Bill Marshall SCDNR 803-734-9096

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);

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Subject: Final Parr CRSA #3 Meeting Notes - 8/30/17

Date: Monday, October 09, 2017 2:02:39 PM

Attachments: final 083017 JointRCG_CRSA3_notes.pdf

Good afternoon all,

Attached for your record are the final notes from the third Parr Comprehensive Relicensing Settlement Agreement meeting, held on August 30, 2017. These notes will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kellv

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Bill Marshall
To: Kelly Kirven

Subject: RE: Parr Downstream Flow Verification Observations

Date: Monday, October 09, 2017 3:04:40 PM

Hi Kelly, thanks for this note, and sorry for my past silence on this meeting date. I've had some competing activities that day but will plan to join this group. Please add me to the list of attendees. I will <u>not</u> plan to bring a boat on this trip.

If and when we are able to schedule the second outing for the lower sites (SS8 through SS10), I'd like to see those by paddling that whole section of the river; with a put-in at Haltiwanger and takeout at Chestnut Hill. That's my preference if it's feasible to work out the logistics. Thank you.

Bill

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

Sent: Monday, October 09, 2017 2:12 PM

To: Alex Pellett < Pellett C@dnr.sc.gov>; Alison Jakupca < Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; Bill Marshall <MarshallB@dnr.sc.gov>; Bill Stangler (CRK@congareeriverkeeper.org) < CRK@congareeriverkeeper.org>; Caleb Gaston (caleb.gaston@scana.com) <caleb.gaston@scana.com>; Chad Altman (altmankc@dhec.sc.gov) <altmankc@dhec.sc.gov>; Charlene Coleman (cheetahtrk@yahoo.com) <cheetahtrk@yahoo.com>; Chris Johnston (Johnston WC@gmail.com) < Johnston WC@gmail.com>; Chuck Hightower (hightocw@dhec.sc.gov) < hightocw@dhec.sc.gov>; David Eargle (eargleda@dhec.sc.gov) <eargleda@dhec.sc.gov>; Dick Christie <ChristieD@dnr.sc.gov>; Fritz Rohde (Fritz.Rohde@noaa.gov) <Fritz.Rohde@noaa.gov>; Gerrit Jobsis (gjobsis@americanrivers.org) <gjobsis@americanrivers.org>; Greg Mixon <MixonG@dnr.sc.gov>; Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; J. Hagood Hamilton Jr. (jhamilton@scana.com) <jhamilton@scana.com>; Jim Glover (gloverjb@dhec.sc.gov) <gloverjb@dhec.sc.gov>; Jon Durham (jondurham@bellsouth.net) <jondurham@bellsouth.net>; Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com>; Lorianne Riggin <RigginL@dnr.sc.gov>; Malcolm Leaphart (mwleapjr@att.net) <mwleapjr@att.net>; Mark Caldwell (mark_caldwell@fws.gov) < mark_caldwell@fws.gov>; Mel Jenkins (greenpalmetto@yahoo.com) <greenpalmetto@yahoo.com>; Melanie Olds (melanie olds@fws.gov) <melanie olds@fws.gov>; Pace Wilber (Pace.Wilber@noaa.gov) < Pace.Wilber@noaa.gov>; rammarell@scana.com; Randy Mahan (randolph.mahan@scana.com) < randolph.mahan@scana.com>; randy mahan (rmahan@sc.rr.com) <rmahan@sc.rr.com>; Ron Ahle <AhleR@dnr.sc.gov>; Rusty Wenerick (weneriwr@dhec.sc.gov) < weneriwr@dhec.sc.gov>; Sam Stokes Jr. < SamStokes Jr. @dnr.sc.gov>; Scott Castleberry (castlews@dhec.sc.gov) <castlews@dhec.sc.gov>; Scott Harder <HarderS@dnr.sc.gov>; STUTTS, BRANDON G <BSTUTTS@scana.com>; Wayne and Ginny Boland (wayneboland@bellsouth.net) < wayneboland@bellsouth.net>; Alison Jakupca <Alison.Jakupca@KleinschmidtGroup.com>; BRESNAHAN, AMY <Amy.Bresnahan@scana.com>; Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; Jay Maher <Jay.Maher@KleinschmidtGroup.com>; Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com>; Ley, Amanda <leyah@dhec.sc.gov>; Alison Jakupca <Alison.Jakupca@KleinschmidtGroup.com>; Henry Mealing < Henry. Mealing@KleinschmidtGroup.com>; Jay Maher <Jay.Maher@KleinschmidtGroup.com>; Jordan Johnson <Jordan.Johnson@KleinschmidtGroup.com>; Karla Reece (Karla.Reece@noaa.gov)

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<Bret.Hoffman@KleinschmidtGroup.com>; Bruce Halverson
<Bruce.Halverson@KleinschmidtGroup.com>

Subject: Parr Downstream Flow Verification Observations

Good afternoon all,

As you all know, the Parr downstream flow verification observation is scheduled for next Tuesday, October 17th. Attached is a document that provides additional details regarding this event. Many of you have already sent an RSVP for this event – if you have not, and you would like to attend, please let me know ASAP.

We will be planning a second outing to view additional sites in November. Stay tuned for details, which will be coming out later this month.

Thanks, Kelly

Kelly Miller Kirven
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To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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(Corbin.Johnson@scana.com); Bret Hoffman; Bruce Halverson

Subject: Final Parr AMPs and Monitoring Plans

Date: Wednesday, October 11, 2017 9:37:26 AM

Good morning all,

Following extensive discussion at our RCG meetings this year, the Adaptive Management Plans and Monitoring Plans listed below have been finalized.

- Minimum Flows Downstream of Parr Shoals Dam AMP
- Flow Fluctuations Downstream of Parr Shoals Dam AMP
- Enhancements to the West Channel Downstream of Parr Shoals Dam AMP
- American Eel Abundance Monitoring Plan
- Erosion Monitoring Plan
- Turbine Venting Plan
- Monticello Reservoir Habitat Enhancement Plan

Due to size, I did not attach the plans to this email. However, these plans are posted to the Project website and are available at the following link:

http://www.parrfairfieldrelicense.com/studyreport.html. If you have any issues retrieving a document from the website, please let me know and I can email you a copy.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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STUTTS, BRANDON G

Subject: Draft Hydroacoustic Report for Fairfield Intakes and Monticello Reservoir

Date: Monday, October 16, 2017 11:50:40 AM

Dear Fisheries TWC Member,

In September of 2017, Aquacoustics and Kleinschmidt performed the "lights on – off" study in the Fairfield intake areas. We also collected fish populations estimates in Monticello Reservoir and the Fairfield tailrace area (Parr Reservoir). We have attached the study report for your review.

The study conclusions were limited to the data collected in the surveys and documented that turning off the lights in the Fairfield tailrace (Parr Res.) should reduce concentrations of fish in that area and significantly reduce the potential for entrainment. The study also documented that fish densities are much higher in the upper lake area than the area near the Fairfield intakes (Monticello Res).

The report did not highlight comparisons with the Desktop entrainment study that predicted entrainment numbers. However, I would like to point out that the acoustic surveys indicate that the densities of fish in the Tailrace are probably not sufficient to meet the high entrainment estimates cited in the Desktop estimates. This is likely associated with the reference studies used in those studies were much larger storage reservoirs with higher densities of fish in the tailrace areas.

I am hopeful that the report findings will give us the assurance that entrainment estimates at the Fairfield Project should not be as high as indicated in the Desktop Analysis and that reducing the lighting in the tailrace area would be a great way to reduce potential entrainment during the new project license.

Thank for your review and we look forward to your comments and discussions of the proposed PME measures for this issue.

Henry

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt
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Theresa Powers; Tom McCoy (thomas mccoy@fws.gov)

Subject: Parr Relicensing CRSA Meetings - Doodle Poll Date: Tuesday, October 17, 2017 8:18:47 AM

Good morning all,

SCE&G would like to schedule another set of three meetings to discuss the final issues for the Comprehensive Relicensing Settlement Agreement (CRSA). These meetings will cover the following topics:

- HFP Fund Revisions
- Land Agreements
- Parr Generator Plan
- Fish Entrainment Reduction PME
- Mussel Genetics
- Review of latest version of the CRSA and Appendices:
 - o Appendix A all of the AMPs, Monitoring Plans, RMP, SMP, and HEP Funding
 - o Appendix B Parr Hazard Marking, Draining/Filling of the Broad River Waterfowl Area, American Rivers Map Funding

Please follow the link to the Doodle Poll and vote for which dates work best for your schedule. As noted, we will choose the three best dates to schedule CRSA meetings.

http://doodle.com/poll/xectcxgvqwwieksn

Thanks, Kelly

Kelly Miller Kirven
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From: Gerrit Jobsis

To: Kelly Kirven; Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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Ahle; Sam Stokes (stokess@dnr.sc.gov); STUTTS, BRANDON G

Subject: RE: Parr Relicensing - Downstream Flow Observation Recap

Date: Monday, October 23, 2017 6:11:58 PM

Hi Kelly,

Thank for the notes. Based on the field observations, American Rivers believes that a 1000 cfs flow is adequate as low flow for aquatic life <u>with</u> the understanding that SCE&G will actively manage the project to reduce downstream flow fluctuations for a goal of matching daily average inflow with continuous outflow.

As for the navigation, it was clean that 1000 cfs did not meet the intent of the state's navigation criteria for one way navigation. Navigation at the slot on river right was blocked by an arc of boulders just upstream of that slot. This leaves only the slot at river left available for jon boat navigation. That one slot does not meet the goal of the state's criteria of having at least 10% of the channel width meeting navigation.

I look forward to discussing the field observations at upcoming meetings and determining how navigation may be met.

Best regards,

Gerrit

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

Outside magazine named American Rivers one of the best groups to support in 2017. Donate today at www.AmericanRivers.org/Donate

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

Sent: Monday, October 23, 2017 4:44 PM

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Robert Stroud (StroudR@dnr.sc.gov); Ron Ahle; Sam Stokes (stokess@dnr.sc.gov); STUTTS, BRANDON G

Subject: Parr Relicensing - Downstream Flow Observation Recap

Fisheries TWC Members;

This note is to document our flow observation in the Broad River downstream of Parr Shoals Dam on October 17, 2017.

The Attendees were:

- Bill Argentieri, Ray Ammarell, Caleb Gaston, Brandon Stutts (SCE&G)
- Bill Marshall, Dick Christie, Ron Ahle (SCDNR)
- Gerrit Jobsis (American Rivers)
- Henry Mealing and Jordan Johnson (Kleinschmidt Associates)

The group met at the Alston Trailhead parking area and proceeded to view several of the IFIM transect sites at the proposed "low" flow of 1,000 cfs. Flow during the observation period (as measured at the Alston Gage) ranged between (926 and 1060 cfs).

The group viewed Study Sites 3, 4, 5, 6, 7, and the "navigation ledge" at transect 7 during the trip. The group also reviewed the area in the West Channel where the channel proposed in the West Channel Water Quality AMP would be located.

The group had some limited discussions regarding the "low" flow observations. Overall, the flows wetted these study sites from bank to bank and provided good flows in the river. There was discussion about the adequacy of the 1,000 cfs flow to meet the SCDNR Policy on navigation at the transect 7 navigation ledge. Navigation is available at two notches (river right and river left) for canoes and kayaks. Jon boat passage is better at the "river left" notch. Stakeholders will provide their observations during subsequent discussions at the Settlement Agreement meetings in November and December 2017.

The group discussed the option of viewing sections of the river from Fulmer's Bottom downstream to the Chestnut Hill take out during November 2017. This section of river includes Haltiwanger, Huffman, and Bookman Islands.

Henry Mealing & Jordan Johnson Kleinschmidt Associates

Kelly Miller Kirven
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(mcswain@comcast.net); Phil Gaines (pgaines@scprt.com); Rachel Sweeney (rachel.sweeney@noaa.gov);

Theresa Powers; Tom McCoy (thomas mccoy@fws.gov)
Additional Downstream Navigation Flow Observations

Date: Thursday, November 02, 2017 11:36:01 AM

Good morning,

Subject:

On October 17, 2017, SCE&G provided stakeholders an opportunity to view navigation flows downstream of Parr Shoals Dam, specifically the west channel area, IFIM study sites 3, 4, 5, 6, 7, and the "navigation ledge" at transect 7.

SCE&G is now planning to provide an opportunity to view sections of the river from Fulmer's Bottom downstream to the Chestnut Hill take out, including Haltiwanger, Huffman, and Bookman islands, on either November 8th OR November 9th. If you are interested in taking advantage of this opportunity, please let me know ASAP. SCE&G will schedule flow observations on either November 8th or 9th, depending on interest and feedback from stakeholders.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

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To: Melanie Olds (melanie olds@fws.gov); Fritz Rohde - NOAA Federal; Rusty Wenerick (weneriwr@dhec.sc.gov);

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(caleb.gaston@scana.com); STUTTS, BRANDON G; Henry Mealing; Alison Jakupca; Kelly Kirven

Subject: draft Parr CRSA #4 Meeting Notes - 11/7/17

Date: Wednesday, November 15, 2017 1:01:43 PM

Attachments: draft 110717 JointRCG CRSA4 notes 11-15.doc

Good afternoon,

Attached are the draft notes from the Parr CRSA #4 meeting, held on Tuesday, November 7th. Please review and provide any comments or edits by Friday, December 1st.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator *Kleinschmidt*

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STUTTS, BRANDON G

Subject: Parr Relicensing - Downstream Flow Observation Recap - November 9, 2017

Date: Thursday, November 16, 2017 1:06:26 PM

Fisheries TWC Members:

This note is to document the "1,000 cfs" flow observation in the Broad River from Haltiwanger Island, Huffman, and Bookman Islands downstream to Chestnut Hill subdivision boat ramp on November 09, 2017.

The Attendees were:

- Caleb Gaston (SCE&G)
- Bill Marshall (SCDNR)
- Jordan Johnson and Jared Porter (Kleinschmidt Associates)

The group met at the Chestnut Hill subdivision boat ramp and traveled up to the access near Haltiwanger Island. The group launched at Haltiwanger and made a one-way float downstream to the Chestnut Hill boat ramp. The group spent the day observing flows in the Broad River and the island complexes during a "1,000 cfs" flow. Alston flows ranged between 888 and 992 during the observation period (using the 10 hour offset for travel time).

The group had some limited discussions regarding the "low" flow observations. Overall, the flows wetted these study sites from bank to bank and provided protective aquatic flows in the river. The group discussed that the 1,000 cfs flow provided passage but didn't meet the specific SCDNR Policy on navigation at some of the shallow ledge areas. Navigation is available for canoes and kayaks, but Jon boats would have difficulty in several of the shallower areas of the river.

Jordan Johnson Kleinschmidt Associates

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

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From: Bill Marshall

To: Kelly Kirven; Melanie Olds (melanie olds@fws.gov); Fritz Rohde - NOAA Federal; Rusty Wenerick

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Subject: RE: draft Parr CRSA #4 Meeting Notes - 11/7/17

Date: Monday, November 27, 2017 1:07:49 PM

Attachments: draft 110717 JointRCG CRSA4 notes 11-15 (Marshall-edits).doc

Hi Kelly,

Within the attached draft, I made a few suggested edits in red font on page 2 and a minor clarification on page 4.

Thanks,

Bill Marshall

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

Sent: Wednesday, November 15, 2017 1:02 PM

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Subject: draft Parr CRSA #4 Meeting Notes - 11/7/17

Good afternoon,

Attached are the draft notes from the Parr CRSA #4 meeting, held on Tuesday, November 7th. Please review and provide any comments or edits by Friday, December 1st.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

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(mcswain@comcast.net); Phil Gaines (pgaines@scprt.com); Rachel Sweeney (rachel.sweeney@noaa.gov); Tom

McCoy (thomas mccoy@fws.gov)

Subject: Final Parr CRSA #4 Meeting Notes - 11/7/17

Date: Friday, December 01, 2017 9:59:52 AM

Attachments: final 110717 JointRCG CRSA4 notes.pdf

Good morning all,

Attached for your record are the final notes from the Parr Comprehensive Relicensing Settlement Agreement (CRSA) Meeting #4, held on November 7, 2017. These notes will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: Bill Marshall
To: Kelly Kirven

Cc: Bill Argentieri; Henry Mealing; GASTON, CALEB; Gerrit Jobsis; Congaree Riverkeeper

Subject: RE: Draft Parr CRSA #5 Meeting Notes - 11/30/17

Date: Wednesday, January 03, 2018 2:25:42 PM

Hi Kelly,

Attached is the navigational flow assessment report with the inclusion of two sentences I've drafted intended to provide some explanation of why the model results differ from what we saw during field verification. The sentences are added to Section 5.2 on page 11.

Also, the notes mistakenly say that I have photos of the spider lily that was mentioned by Caleb. Actually, I <u>do</u> have photos of the river channel to show the extent of water on shoals and bars, but I <u>do not</u> have a photo of the spider lily... but I think Caleb does.

Thanks,

Bill Marshall

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

Sent: Tuesday, December 19, 2017 2:18 PM

To: Pace Wilber (Pace.Wilber@noaa.gov) <Pace.Wilber@noaa.gov>; Rusty Wenerick (weneriwr@dhec.sc.gov) <weneriwr@dhec.sc.gov>; Dick Christie <ChristieD@dnr.sc.gov>; Dick Christie (dchristie@comporium.net) <dchristie@comporium.net>; Bill Marshall <MarshallB@dnr.sc.gov>; Gerrit Jobsis (gjobsis@americanrivers.org) <gjobsis@americanrivers.org>; Bill Stangler (CRK@congareeriverkeeper.org) <CRK@congareeriverkeeper.org>
Cc: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; rammarell@scana.com; btrump@scana.com; Caleb Gaston (caleb.gaston@scana.com) <caleb.gaston@scana.com>; RANDOLPH MAHAN <rmahan@sc.rr.com>; randolph.mahan@scana.com; Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com> Subject: Draft Parr CRSA #5 Meeting Notes - 11/30/17

Good afternoon,

Attached are the draft notes from the Parr CRSA #5 meeting, held on November 30, 2017. Please review and provide any comments or edits by Friday, January 5, 2018.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt
Office: 803.462.5633

Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

(marshallb@dnr.sc.gov); Bill Stangler (CRK@congareeriverkeeper.org); BRESNAHAN, AMY; Caleb Gaston

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(mcswain@comcast.net); Phil Gaines (pgaines@scprt.com); Rachel Sweeney (rachel.sweeney@noaa.gov); Tom

McCoy (thomas mccoy@fws.gov)

Subject: Final Parr CRSA #5 Meeting Notes - 11/30/17

Date: Friday, January 05, 2018 12:15:07 PM

Attachments: final 113017 JointRCG CRSA5 notes.pdf

Good afternoon,

Attached for your record are the final notes from the Parr CRSA #5 meeting held on November 30, 2017. These notes will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
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To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall (marshallb@dnr.sc.gov);

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Tom McCoy (thomas mccoy@fws.gov)

Preliminary Parr CRSA Package for Review

Subject: Preliminary Parr CRSA Package for Review Date: Wednesday, January 10, 2018 4:09:50 PM

Good afternoon all,

At our last Parr Comprehensive Relicensing Settlement Agreement (CRSA) Meeting held on November 30, 2017, SCE&G agreed to compile the CRSA and supporting documents for agency and NGO representatives to distribute to their legal counsel for review. SCE&G has posted this information to their website at http://www.parrfairfieldrelicense.com/documents/MILESTONE/milestonedocs.html. You may download this information to your computer, or if you prefer, we can mail you a CD with all of the information pre-loaded. If you would like a CD, please email me with the mailing address and the number of copies you will need.

Please keep in mind that several of these documents are still DRAFT, therefore you may see track changes within some of the documents. Please review those edits to see if they address the requests we heard at the last CRSA meeting. Although we don't anticipate any additional significant changes to these documents prior to finalizing the CRSA, some minor edits may occur in the coming months based on stakeholder input. However, we did want to provide ample time for a legal review so that signing of the CRSA can occur prior to the filing of the Final License Application with FERC.

Also, please note that the documents entitled "Land Protection Overview" and "Land Protection Restrictive Covenants" are not associated with the CRSA, but are instead part of a Memorandum of Understanding that SCE&G is developing with SCDNR and any other interested parties.

Please let me know if you have any questions or additional information needs while reviewing this information.

Thanks, Kelly

Kelly Miller Kirven

Regulatory Coordinator Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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(mcswain@comcast.net); Phil Gaines (pgaines@scprt.com); Rachel Sweeney (rachel.sweeney@noaa.gov); Tom

McCoy (thomas mccoy@fws.gov)

Subject: Preliminary Parr CRSA Package for Review Date: Wednesday, January 24, 2018 3:26:01 PM

Good afternoon,

On January 10, 2018, I distributed an email regarding the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package for legal review. We ask that you please submit comments on this package by Friday, March $16^{\rm th}$. This will allow us enough time to review comments and meet with stakeholders to resolve any issues.

In addition to the CRSA, the package included two documents that will be used in the Land Protection Memorandum of Understanding (MOU) that SCE&G is drafting. The MOU is not complete yet, but SCE&G will distribute this document to interested stakeholders as soon as possible.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

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To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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and Ginny Boland (wayneboland@bellsouth.net)

Subject: Parr Project Summary Mussel Report and Genetic Testing Results

Date: Monday, January 29, 2018 8:42:55 AM

Good morning,

Attached you will find the Mussel Report prepared by Three Oaks Engineering. This summary report includes the original Monticello Reservoir Report and the results of the genetics testing performed by Appalachian State University. We have also included the original ASU report for your review and records. This report does not change the PME for mussel monitoring both in Monticello Reservoir and in the Parr Shoals Dam Tailrace area.

If you have questions on any of the information provided, please email me for clarifications.

Thank you, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt

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To: Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall

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Hendrix (HendrixWB@dot.state.sc.us)

Subject: Final Parr Instream Flow Study Report

Date: Tuesday, January 30, 2018 10:03:27 AM

Good morning all,

Attached for your record is the Final Parr Instream Flow Study Report. This document is also available on the Project website at www.parrfairfieldrelicense.com.

Thanks,

Kellv

Kelly Miller Kirven Regulatory Coordinator

Kleinschmidt
Office: 803.462.5633
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Alex Pellett (PellettC@dnr.sc.gov); Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall To:

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Jeff Carter (jmcarter00@sc.rr.com); John Fantry (john@Fantrylaw.com); Kelly Kirven; Corbin Johnson

(Corbin.Johnson@scana.com); Bruce Halverson

Subject: Final Parr CRSA #6 Meeting Notes - 5/8/18 Date: Tuesday, June 05, 2018 12:49:11 PM Attachments: final 050818 JointRCG CRSA6 notes all.pdf

Good afternoon,

Attached for your record are the final notes from the Parr CRSA #6 meeting held on May 8, 2018. These notes will also be available on the Project website at www.parrfairfieldrelicense.com.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt

Office: 803.462.5633 Cell: 423.747.2660

From: Henry Mealing

To: <u>Gerrit Jobsis (gjobsis@americanrivers.org)</u>

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

Subject: FW: Parr Downstream Flow Stabilization Benefits

Date: Wednesday, July 26, 2017 10:17:26 AM

Gerrit,

The last paragraph of our meeting notes show the same thing that is in your personal notes. Does that paragraph help you understand what you meant?

I checked with Kelly and her notes were as follows:

- Gerrit wants to add to the downstream flow fluctuation IFIM data that shows how the changes will benefit habitat – look at it from a biological standpoint and not just a numbers/flow standpoint
- Stability of WUA is what is most important
- Gerrit and agencies will contact each other and propose something

What we heard you say was that we needed to incorporate the IFIM type analysis in the Downstream Flow Fluctuation AMP review. During the meeting we didn't get into specifics. We were hoping that you and Jordan could discuss some specifics of what you were thinking and could talk with the agencies to give more specificity to any measurement item we would add into the Downstream Flow Fluctuation AMP.

On a separate note, Dick, Melanie, Ray, and I had a sidebar on June 18th to discuss your recommendation and the 4 of us weren't sure of how to address your suggestion and agreed to wait till you got back from vacation to follow up on it.

I hope this helps. Hope you had a good vacation.

Henry

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

Sent: Tuesday, July 25, 2017 5:59 PM

To: Henry Mealing < Henry Mealing @ Kleinschmidt Group.com >

Subject: Parr Downstream Flow Stabilization Benefits

Hi Henry,

I'm back from vacation and in my notes from the July 13 Parr-Fairfield meeting I have to follow up with agency and NGO reps to develop habitat metrics for calculating the benefits of SCE&G's proposed downstream flow stabilization using IFIM study data to capture the habitat variability. I also have that Jordan at KA will help with getting the data and making graphs. I must say I'm a big vague on just what that means.

Can you help clarify the assignment via email or over the phone?

Thanks for any help you can provide.

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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From: ARGENTIERI, WILLIAM R

To: Henry Mealing; AMMARELL, RAYMOND R; Kelly Kirven; Alison Jakupca

Subject: Fwd: Parr-Fairfield: 2017-07-17 SA Appendix B DRAFT

Date: Monday, August 07, 2017 3:13:47 PM

All,

See Gerrit's comments below. We should discuss before the meeting on Thursday.

Bill

Sent from my iPhone

Begin forwarded message:

From: Gerrit Jobsis <<u>gjobsis@americanrivers.org</u>>

Date: August 7, 2017 at 12:12:21 PM EDT

To: "ARGENTIERI, WILLIAM R" < BARGENTIERI@scana.com > Subject: Parr-Fairfield: 2017-07-17 SA Appendix B DRAFT

***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.

Bill,

I want to let you know before Thursday's meeting that American Rivers does not support Section 5.0 of Appendix B as written.

5.0 NON-PROJECT LAND PROTECTION

SCDNR recommended significant, additional land protection be provided for habitat conservation and recreational use. Preferred land areas to serve as mitigation for aquatic resource impacts will contain a significant portion of riparian and wetland habitats.

We agree that riparian land protection is a good thing and is beneficial to non-point source pollution impacts, wildlife corridors, stream bank stability, recreation, etc. Riparian land protection should not, however, be used for the purpose of mitigating aquatic resource impacts. Actions to mitigate aquatic resource impacts belong in Section 2.0, the creation of mitigation fund to fund projects that directly restore in-kind aquatic habitats.

The reason is that aquatic impacts of this project are related to flows alteration and reservoir level fluctuations. There is no scientific basis for mitigating stream flow or reservoir fluctuations with land protection because those lands would not offset impacts to the aquatic resources resulting from altered flows and fluctuations. Sufficient water be it stream flow or lake levels are essential for shaping the physical, chemical and biological processes of the system. The studies conducted by SCE&G clearly demonstrate how various flow regimes affect physical conditions for aquatic life, e.g.,

water depth and velocity, and access to certain substrate types and cover; and how lake level fluctuations eliminate lentic habitats on which aquatic life depends.

Aquatic life and other beneficial uses protected by the Clean Water Act are supported by river flows and lake levels, and are distinctly separate from the values addressed by land protection and, therefore, do not meet the fundamental goal of mitigation: to replace the chemical, physical and biological functions and values lost to authorized impacts. See, e.g., 60 Fed. Reg. 58605 (Nov. 28, 1995). Riparian land protection does little to mitigate the adverse impacts to physical conditions of the water body that would be lost. It does not provide lotic habitat needs of water depth, velocities or access to certain substrates and cover. It does not provide lentic habitat needs of water depth or access to certain substrates and cover for fish, macroinvertebrates and other aquatic life. The impact of altered flows and lake levels cannot be replaced or accounted for with land protection because land protection does not provide the same, or even comparable, ecological benefits necessary to effectively mitigate those impacts.

American Rivers has fought such arrangements in the past which resulted in a settlement agreement among Duke Energy, DHEC, Costal Conservation League and American Rivers to remove all reference to land protection being mitigation for aquatic resource impacts from the 401 certification of the Catawba-Wateree FERC license. We are currently in litigation to resolve such an arrangement for the Yadkin-Pee Dee project in NC. Our goal for the Parr-Fairfield relicensing is to avoid a repeat of those mistakes and the substantial delays and costs they have caused. We want to ensure that the settlement agreement for this project includes measures that truly mitigate aquatic impacts related to flow alterations and reservoir level fluctuations.

I am sincerely interested in continuing a collaborative approach to this relicensing with SCE&G and other stakeholders, and realize the above may come across as harsh. However, I want to make sure you understand the importance of this issue to American Rivers. I have also let the other stakeholders know this. I look forward to Thursday's meeting and am, as always, open discussing how we can reach an agreement that best serves the Broad River.

Gerrit

From: ARGENTIERI, WILLIAM R

To: "Gerrit Jobsis"

Cc: <u>Henry Mealing</u>; <u>AMMARELL, RAYMOND R</u>; <u>Kelly Kirven</u>

Subject: RE: Parr-Fairfield hydro relicense

Date: Wednesday, August 23, 2017 7:30:03 AM

Gerrit.

Thank you for the information. We will review it and include it on the agenda for next week. Hope you have a good rest of the week.

Bill

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

Sent: Tuesday, August 22, 2017 5:08 PM

To: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; AMMARELL, RAYMOND R <RAMMARELL@scana.com>; Henry Mealing (Henry.Mealing@KleinschmidtGroup.com) <Henry.Mealing@KleinschmidtGroup.com>; Kelly Kirven (Kelly.Kirven@KleinschmidtGroup.com) <Kelly.Kirven@KleinschmidtGroup.com>; Bill Stangler (crk@congareeriverkeeper.org) <crk@congareeriverkeeper.org>; Dick Christie (christied@dnr.sc.gov) <christied@dnr.sc.gov) < Marshall (MarshallB@dnr.sc.gov) <MarshallB@dnr.sc.gov>; Dick Christie (christied@dnr.sc.gov) <christied@dnr.sc.gov>; Melanie_olds@fws.gov' (melanie_olds@fws.gov) <melanie_olds@fws.gov) <melanie_olds@fws.gov>; Fritz Rohde - NOAA Federal <fritz.rohde@noaa.gov>; Pace Wilber@noaa.gov>;

weneriwr@dhec.sc.gov

Subject: Parr-Fairfield hydro relicense

***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.

Bill et al.,

At the August 9 settlement meeting I agreed to provide wording for a downstream flows operations optimization model that can be included in the adaptive management plan. I also agree to provide a budget for developing and printing Blue Trail quality maps for rivers in the project vicinity. Here are those items.

Gerrit

Operations Optimization Model

It is recognized that the adaptive management process would benefit from an operations optimization model for reaching the goals of minimizing downstream flow fluctuations in the Broad and Congaree Rivers. Such a model can help reduce flow fluctuations along the Broad River downstream of the Parr-Fairfield project and fluctuations in the Congaree River that result from the operation of the Parr-Fairfield and Saluda (Lake Murray) projects, while improving generation efficiency and energy revenue from the project operations. Optimization models developed by

Hydrologics, Inc. using the OASIS platform are in use at FERC projects on the Roanoke River by Appalachian Power for the Smith Mountain/Leesville pump storage project and by Dominion Virginia Power for the Lake Gaston and Roanoke Rapids project.

The operations optimization model would support real-time implementation of FERC license conditions for lake levels and downstream flow releases, and would include the use of inflow and reservoir storage forecasting to improve upon timing and releases of outflows to meet license implementation goals and conditions. The model would incorporate IFIM study output to allow analysis of how flow fluctuations correspond to habitat values for flow dependent species and lifestages. The optimization model would be developed in an open, transparent manner for use by all adaptive management process participants. To this end, each participant can assess and refine potential operating rules for Fairfield pump storage, Parr hydro (with existing and new generation capacities), and the Saluda project to better understand how alternatives could meet their interests and affect the interests of other parties.

Blue Trail Recreation Maps

American Rivers will lead the development of recreation maps for non-motorized boaters similar to those completed for the Congaree, Wateree and Ashely river Blue Trails. Two recreation maps will be developed, one for the Broad River downstream of the Parr Shoals Dam to the Congaree River and a second that will include the Broad River from the Neal Shoals Dam to the Parr Shoals Dam and the Enoree River from Parr Reservoir to a yet to be determined upstream location. This work will include (1) convening settlement signatories, regulatory agencies, recreation users and outfitters to identify and compile information on recreation access points and key features, (2) map design and layout, and (3) printing 2,500 waterproof, color copies of each map. An estimated budget in 2017 dollars is:

- Identify and compile information \$7,500
- Design and layout \$4,000
- Printing \$7,500
- Total \$19,000

Gerrit Jöbsis, American Rivers
Senior Director, Conservation Programs
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From: snebiker@qmail.com On Behalf Of steven nebiker

Sent: Wednesday, August 16, 2017 10:29 AM

To: Gerrit Jobsis

Subject: Re: Parr-Fairfield hydro relicense

Let me know if this works. A few paragraphs are needed:

On Sat, Aug 12, 2017 at 8:11 PM, Gerrit Jobsis <gjobsis@americanrivers.org> wrote: Sounds good Steve. Thanks!

Gerrit

Sent from my iPhone

On Aug 12, 2017, at 7:33 PM, steven nebiker <<u>snebiker@hydrologics.net</u>>> wrote:

That was a productive meeting! I'm very excited to see the reception.

I will put something together for you early this week.

Thanks very much,

Steve

On Fri, Aug 11, 2017 at 18:09 Gerrit Jobsis <gjobsis@americanrivers.org<mailto:gjobsis@americanrivers.org>>> wrote: Steve,

I brought up the operations optimization model. The group agreed it could be a useful tool as part of the adaptive management process (AMP) to reduce downstream flow fluctuations caused by the Parr hydroelectric and Fairfield pump storage project. SCE&G asked me to come up with a short paragraph to include in the AMP agreement. Can you provide me draft language for that? Here are things the group agreed to

- Open model to be developed with and reviewable by all settlement signatories
- Similar to optimization models developed by Hydrologics at other FERC licensed projects (I mentioned Smith Mountain and Roanoke, please include the correct project names)
- Use of flow forecasting
- Assessment of Fairfield pump storage operations
- Assessment of Parr hydro operations with existing and new generation capacity
- Assessment of alternatives on the amount and value of energy generation
- Goal of minimizing flow fluctuations in the Broad River below Parr hydro
- Analysis of flow fluctuations at Congaree River in combination with Saluda (Lake Murray) operation

Would you be able to provide me something next week?

Thanks

Gerrit

Gerrit Jöbsis, American Rivers

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Steven Nebiker, P.E. Vice President Director, Marketing/Business Development HydroLogics Chapel Hill, NC

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Taking the Doubt Out of Drought TM

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Taking the Doubt Out of Drought $^{\mathrm{TM}}$

From: Gerrit Jobsis
To: Kelly Kirven

Cc: WILLIAM RARGENTIERI: Henry Mealing
Subject: RE: Preliminary Parr CRSA Package for Review
Date: Wednesday, January 24, 2018 3:06:59 PM

Thank you Kelly

Gerrit Jöbsis, Senior Director Rivers of Southern Appalachia and the Carolinas 215 Pickens Street Columbia, SC 29205

(O) 803.771.7114 (C) 803.546.7926

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

Sent: Wednesday, January 24, 2018 3:05 PM

To: Gerrit Jobsis

Cc: WILLIAM RARGENTIERI; Henry Mealing

Subject: RE: Preliminary Parr CRSA Package for Review

Good afternoon Gerrit,

Thank you for beginning your review of the Parr CRSA and associated materials. We would like for all comments on this package to be submitted by Friday, March 16th, approximately 2 months after the package was available for review. This will allow us enough time to review comments and meet with stakeholders to resolve any issues.

Regarding your second question, we do not have a timeframe established yet for distributing the Land Protection MOU. Bill Argentieri is waiting to hear back from his attorneys on when a draft will be available. As soon as he knows something, he or I will let you know.

Thanks and have a great day! Kelly

Kelly Miller Kirven Regulatory Coordinator **Kleinschmidt**

Office: 803.462.5633 Cell: 803.917.4528

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

Sent: Tuesday, January 23, 2018 4:41 PM

To: Kelly Kirven < Kelly.Kirven@KleinschmidtGroup.com > Cc: WILLIAM RARGENTIERI < BARGENTIERI@scana.com > Subject: RE: Preliminary Parr CRSA Package for Review

Thanks Kelly,

We have begun our review of the CRSA and other materials. Two questions:

- Our legal counsel has asked when is the deadline for comments?
- American Rivers is interested in being a party to the land protection MOU. Do you have a time frame for sending that out?

That's it for now. I imagine there will be more questions coming.

Thanks

Gerrit

Gerrit Jöbsis, Senior Director Rivers of Southern Appalachia and the Carolinas 215 Pickens Street Columbia, SC 29205 (O) 803.771.7114 (C) 803.546.7926

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

Sent: Wednesday, January 10, 2018 4:10 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 (cheetahtrk@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); Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis; Greg Mixon (mixong@dnr.sc.gov); Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jim Glover (gloverjb@dhec.sc.gov); Jon Durham (jondurham@bellsouth.net); Kelly Kirven; Lorianne Riggin (RigginL@dnr.sc.gov); Malcolm Leaphart (mwleapir@att.net); Mark Caldwell (mark_caldwell@fws.gov); Mel Jenkins (greenpalmetto@vahoo.com); Melanie Olds (melanie olds@fws.gov); 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; STUTTS, BRANDON G; Wayne and Ginny Boland (wayneboland@bellsouth.net); Alison Jakupca; BRESNAHAN, AMY; Henry Mealing; Jay Maher; Kelly Kirven; Ley, Amanda; Alison Jakupca; Henry Mealing; Jay Maher; Jordan Johnson; Karla Reece (Karla Reece@noaa.gov); Kelly Kirven; Robert Stroud (StroudR@dnr.sc.gov); Brandon Kulik; Dick Christie (dchristie@comporium.net); Brandon McCartha (Brandon, McCartha@scana.com); btrump@scana.com; CHASTAIN, WILLIAM K JR; Dan Adams

(John.Adams@scana.com); Edye Joyner; Erich Miarka (erich.miarka@gillscreekwatershed.org); Jeff Carter (jmcarter00@sc.rr.com); Joe Wojcicki; John Fantry (john@Fantrylaw.com); Karen Swank Kustafik (kakustafik@columbiasc.net); Mark Davis; Merrill McGregor (merrillm@scccl.org); tboozer@scana.com; William Hendrix (HendrixWB@dot.state.sc.us); Corbin Johnson (Corbin.Johnson@scana.com); Bret Hoffman; Bruce Halverson; Elizabeth Johnson (emjohnson@scdah.state.sc.us); J. Keith Whalen (jwhalen@fs.fed.us); James F. Bates (jbates@fs.fed.us); John Fantry (jfantry@bellsouth.net); Kamau Marcharia (marcharia@aol.com); Larry Newton (LNewton@sc.rr.com); Mary Maercklein (mmaercklein@fs.fed.us); Mike Mastry (Mike.Mastry@noaa.gov); Mike McSwain (mcswain@comcast.net); Phil Gaines (pgaines@scprt.com); Rachel Sweeney (rachel.sweeney@noaa.gov); Tom McCoy (thomas mccoy@fws.gov)

Subject: Preliminary Parr CRSA Package for Review

Good afternoon all,

At our last Parr Comprehensive Relicensing Settlement Agreement (CRSA) Meeting held on November 30, 2017, SCE&G agreed to compile the CRSA and supporting documents for agency and NGO representatives to distribute to their legal counsel for review. SCE&G has posted this information to their website at http://www.parrfairfieldrelicense.com/documents/MILESTONE/milestonedocs.html. You may download this information to your computer, or if you prefer, we can mail you a CD with all of the information pre-loaded. If you would like a CD, please email me with the mailing address and the number of copies you will need.

Please keep in mind that several of these documents are still DRAFT, therefore you may see track changes within some of the documents. Please review those edits to see if they address the requests we heard at the last CRSA meeting. Although we don't anticipate any additional significant changes to these documents prior to finalizing the CRSA, some minor edits may occur in the coming months based on stakeholder input. However, we did want to provide ample time for a legal review so that signing of the CRSA can occur prior to the filing of the Final License Application with FERC.

Also, please note that the documents entitled "Land Protection Overview" and "Land Protection Restrictive Covenants" are not associated with the CRSA, but are instead part of a Memorandum of Understanding that SCE&G is developing with SCDNR and any other interested parties.

Please let me know if you have any questions or additional information needs while reviewing this information.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator
Kleinschmidt
Office: 803 463 5633

Office: 803.462.5633 Cell: 803.917.4528

From: <u>C Coleman</u>
To: <u>Kelly Kirven</u>

Subject: Re: CRSA Signing and Meeting Notes

Date: Friday, May 25, 2018 12:31:08 PM

Hello,

Yes, AW will be signing June 26,2018. I will be signing for American Whitewater, I can get you an official release from Kevin Colburn, that says I am authorized if you need it.

Below is the other information

Thank you Charlene

American Whitewater works to protect and restore rivers, maintains a national inventory of whitewater rivers, monitors potential threats to whitewater river resources, publishes information on river conservation, works with government agencies to protect the ability of the public to have a voice in the management of rivers, advocates for legislation protecting our rivers and their aquatic resources, and provides technical advice to local groups regarding river conservation and management.

American Whitewater is working full-time to assure protection of whitewater rivers and the ability of the public to enjoy clean, free-flowing rivers. This includes our access program that focuses on protecting navigability on our nation's waterways and acquisition of lands that provide public access to rivers. To learn more about our river stewardship program go to the stewardship page.

Mission

Founded in 1954, American Whitewater is a national non-profit organization (Non-profit # 23-7083760) with a mission "to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely." American Whitewater is a membership organization representing a broad diversity of individual whitewater enthusiasts, river conservationists, and more than 100 local paddling club affiliates across America. The organization is the primary advocate for the preservation and protection of whitewater rivers throughout the United States, and connects the interests of human-powered recreational river users with ecological and science-based data to achieve the goals within its mission.

Charlene

Charlene Coleman

American Whitewater

Regional Coordinator

On \Box Thursday \Box , \Box May \Box \Box 17 \Box , \Box 2018 \Box \Box 03 \Box : \Box 28 \Box : \Box 36 \Box \Box PM, Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com> wrote:

Good Afternoon Stakeholders,

Thank you to all of you who attended meetings, provided feedback, and otherwise helped to develop the Parr Hydroelectric Project Comprehensive Relicensing Settlement Agreement (CRSA). Please find the draft meeting notes from CRSA Meeting #6 attached to this email. If no comments are provided on the draft meeting notes, these notes will become final on May 31.

At this meeting, we revised the outstanding CRSA documents for which there were comments (CRSA documents for which there were no additional comments are considered final and were not reviewed at this meeting). Due to the size of the edited CRSA documents, these documents have been uploaded to the relicensing website for viewing, with the exception of the Permitting Handbook, which is attached. Documents shown as "revised" include accepted edits from the meeting. Documents shown as "with edits" include edits made subsequent to the meeting in track changes.

- CRSA Settlement Agreement Main Document
- CRSA Appendix A Proposed License Conditions
- CRSA Appendix B Content of Off-License Agreements
- CRSA Appendix B-1
- CRSA Appendix E Proposed License Articles
- HEP Fund Proposal
- Parr West Channel AMP
- Parr Downstream Flow Fluctuation AMP
- Parr Minimum Flow AMP
- Recreation Management Plan
- Shoreline Management Plan Monticello Reservoir
- Shoreline Management Plan Parr Reservoir
- Parr Hydroelectric Project Permitting Handbook (attached above)

As relicensing stakeholders and potential CRSA signatories, we need the following from you by May 31, 2018:

- 1. If your organization can sign now (by June 26, 2018)
- 2. If your organization can sign later and by what date

3. If your organization will NOT sign

If you are planning on signing, please provide your organization description/mission statement that you would like included in the CRSA by May 31, 2018.

Additionally, based on the responses to this email, the following sections of the CRSA will need to be edited:

4.2.3 SIGNING PERIOD

SCE&G distributed the final CRSA package with a signature page to each and every relicensing Party on June X, 2018. Based on stakeholder feedback, SCE&G will receive all fully executed signature pages to the CRSA by June 26, 2018. SCE&G will add all of the fully executed signature pages to the original CRSA for filing with the Commission, and will provide copies of all completed signature pages to each of the signatories.

4.2.4 EFFECTIVE DATE OF THE CRSA

This CRSA becomes binding on the signatories on the date that SCE&G files the CRSA with the Commission, or the date upon which signatures are received if they are received after the CRSA is filed with the Commission.

Please let us know if you have any questions or concerns,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 423.747.2660

From: <u>Jeffrey Carter</u>
To: <u>Kelly Kirven</u>

Subject: Re: Parr CRSA Review Meeting Agenda - 5/8/18

Date: Tuesday, May 29, 2018 9:15:41 AM

Kelly, I am responding that I plan on signing the CRSA as an individual signatory.

Jeff

Sent from my iPhone

On Apr 25, 2018, at 3:46 PM, Kelly Kirven < Kelly.Kirven@KleinschmidtGroup.com > wrote:

Good afternoon all,

Attached is the agenda for the next Parr CRSA meeting, scheduled for Tuesday, May 8^{th} . If you have not already, please RSVP, so that we can plan accordingly for lunch.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator <image001.gif> Office: 803.462.5633 Cell: 423.747.2660

www.KleinschmidtGroup.com

<Final CRSA Review Meeting Agenda 5-8-18.docx>

From: Fritz Rohde - NOAA Federal
To: Henry Mealing; Kelly Kirven

Subject: Re: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 2 of 2

Date: Tuesday, July 11, 2017 2:11:24 PM

Attachments: image002.png

2017-06-19 Downstream Flow Fluc AMP Draft for AMP Meeting with comments (1).docx

Hi

Sorry for the lateness of this but my supervisor finally looked at Downstream Flow AMP and made comments on the attachment.

Fritz

On Fri, Jul 7, 2017 at 11:22 AM, Henry Mealing < Henry.Mealing@kleinschmidtgroup.com wrote:

Parr Stakeholders, just a few comments/thoughts,

Thanks to Kelly for the updates. We wanted to make sure that all of the information we are going to discuss on July 13th and 18th is available to the Parr Relicensing Stakeholders. We have received edits and input from several of you that was adopted into these documents.

There are 2 new documents that we will also be discussing – the Mussel Monitoring Plan and the Hydroacoustic Work Plan. We have been working with USFWS to develop this latest version of a Draft Mussel Monitoring Plan. The Hydroacoustic work Plan was developed by SCE&G, Aquacoustics, and Kleinschmidt to work towards a PME for fish entrainment reduction.

We will be working through these documents at the meeting to hopefully develop final AMPs/Monitoring Plans/PME measures to include in the Settlement Agreement, which we will begin developing next month (August). Remember that we have about 10 months left before we submit the Final License Application and would like to be able to submit as complete a package as possible to FERC at that time.

I also want to thank each one of you for your commitment to working with SCE&G in developing each of these documents/plans/PME measures. It is really coming together as a very positive relicense package.

Henry

Kleinschmidt Associates

From: Kelly Kirven

Sent: Friday, July 07, 2017 11:04 AM

To: Alex Pellett (<u>PellettC@dnr.sc.gov</u>) < <u>PellettC@dnr.sc.gov</u>>; Alison Jakupca <u>oup.com</u>>;

ARGENTIERI, WILLIAM R < BARGENTIERI@scana.com >; Bill Marshall

(<u>marshallb@dnr.sc.gov</u>) < <u>marshallb@dnr.sc.gov</u>>; Bill Stangler

(CRK@congareeriverkeeper.org) < CRK@congareeriverkeeper.org>; BRESNAHAN, AMY

<<u>Amy.Bresnahan@scana.com</u>>; Caleb Gaston (<u>caleb.gaston@scana.com</u>)

<<u>caleb.gaston@scana.com</u>>; Chad Altman (<u>altmankc@dhec.sc.gov</u>)

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<a href="mailto:</a> <a href="mailto:altmankc@dhec.sc.gov"><a href="ma
< hightocw@dhec.sc.gov>; David Eargle (eargleda@dhec.sc.gov) < eargleda@dhec.sc.gov>;
Fritz Rohde (Fritz.Rohde@noaa.gov) < Fritz.Rohde@noaa.gov>; Gerrit Jobsis
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(<u>mixong@dnr.sc.gov</u>) < <u>mixong@dnr.sc.gov</u>>; Henry Mealing <u>up.com</u>>; Jay Maher om>;
Jim Glover (gloverib@dhec.sc.gov) <gloverib@dhec.sc.gov>; Kelly Kirven p.com>; Ley,
Amanda < levah@dhec.sc.gov>; Lorianne Riggin (RigginL@dnr.sc.gov)
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(Corbin.Johnson@scana.com) < Corbin.Johnson@scana.com>
Subject: Documents for Parr AMP/MP Meetings - July 13 and 18 - Email 2 of 2
```

Good morning,

Attached to this email are the remaining documents that we will be discussing on July 13th and 18th. These documents are:

- Draft Erosion MP
- Draft Mussel MP NEW
- Entrainment Additional Mortality Analysis Memo
- Entrainment/Hydroacoustic Work Plan NEW

- Turbine Venting PlanMonticello Habitat Enhancement PME

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

From: Henry Mealing

To: Fritz Rohde - NOAA Federal

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

Subject: FW: transit time

Date: Tuesday, July 25, 2017 4:32:13 PM
Attachments: Broad River traveltime.pdf

Fritz,

Bruce Halverson (our hydrologist for the Parr Project) did a quick look at the USGS gage Alston to Columbia and made the following observations. He noted that we could run the Parr Operations Model to give a little more precision but it wouldn't be much different that these observations and would take longer to set up and run:

I did a relatively quick look at flows between USGS gages at Alston and the Columbia (NOT Congaree), and the numbers are in the same neighborhood.

- Page 1 shows a pulse from 4k to 25k at Alston, travel time was about 4 hours.
- Page 2 shows a pulse from 2k to 8k at Alston, travel time is about 6 hours
- Page 3 (one-week of daily cycles) and page 4 (one cycle) show flow cycling between 500 and 2,000 cfs, travel time is about 16 hours.

Bruce Halverson, P.E., CFM

Senior Consultant Direct: 608.819.2681

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From: ARGENTIERI, WILLIAM R [mailto:BARGENTIERI@scana.com]

Sent: Tuesday, July 25, 2017 2:40 PM

To: 'Fritz Rohde - NOAA Federal' < ritz.rohde@noaa.gov Ce:Henry Mealing@KleinschmidtGroup.com

Subject: RE: transit time

Fritz.

I noticed you requested this same information from Henry. I did a rough estimate by comparing inflection points of the Alston and Congaree USGS gauges. Let's see how these compare to what Bret and Bruce determine based on the model data. Travel time between gauges usually varies depending on the flow. From the Alston gauge to the Congaree Gauge I estimated the following travel times for three flow values.

800 CFS – 9 hrs 10,000 CFS – 7 hrs 25,000 CFS – 3 hrs Bill

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

Sent: Tuesday, July 25, 2017 11:40 AM

To: ARGENTIERI, WILLIAM R < <u>BARGENTIERI@scana.com</u>>

Subject: transit time

^{***}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:

Do y'all have an estimate for the transit time for a slug of water to go from Parr Shoals to the Columbia Diversion Dam? We are working on a briefing document for PRD and just in case they ask that question. thanks
Fritz

From: ARGENTIERI, WILLIAM R

To: Pace Wilber

Cc: <u>Henry Mealing</u>; <u>Kelly Kirven</u>; <u>Fritz Rohde</u>

Subject: FW: Downstream Flow Fluctuations AMP Summary

Date: Friday, January 12, 2018 8:36:14 AM

Pace,

Looking back through our records, it appears we already sent you the attached two documents regarding a record of how we developed the Downstream Flow Fluctuation AMP. Did you pass this along to the PRD folks? What would you/they like to discuss in addition to this data that has already been complied?

In the mean time we will develop a presentation for our February 7 meeting based on these two documents and the CRSA and include any new information which you let us know about before the meeting. Do you think that will be helpful?

Bill

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

Sent: Thursday, September 28, 2017 3:02 PM

To: Pace Wilber (Pace.Wilber@noaa.gov) < Pace.Wilber@noaa.gov>; Fritz Rohde - NOAA Federal < fritz.rohde@noaa.gov>

Cc: Henry Mealing <Henry.Mealing@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R<BARGENTIERI@scana.com>; AMMARELL, RAYMOND R <RAMMARELL@scana.com>

Subject: Downstream Flow Fluctuations AMP Summary

***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.

Good afternoon Pace and Fritz,

Per your request, attached are two documents we put together that summarize the process for developing the Downstream Flow Fluctuations AMP. The document titled Compiled Meetings Notes and Memos includes the consultation record for the development of the Downstream Flow Fluctuations AMP. The document titled Downstream Flow Fluc. Presentation is a PDF of a PowerPoint presentation that summarizes the meeting notes and memos included in the first document.

If you have any questions about this information, please let us know.

Thanks, Kelly

Kelly Miller Kirven
Regulatory Coordinator



Office: 803.462.5633 Cell: 803.917.4528

From: Henry Mealing

To: Andrew Herndon - NOAA Federal; Pace Wilber - NOAA Federal; Stephania Bolden; "Robert Hoffman - NOAA

Federal"; Fritz Rohde

Cc: ARGENTIERI, WILLIAM R; Kelly Kirven

Subject: Parr Relicensing Meeting

Date: Thursday, February 08, 2018 10:40:13 PM

Attachments: <u>image001.png</u>

Bob, Steph, Andy, Pace, and Fritz

Just wanted to take a minute to thank you for taking the time to review the Parr Relicensing Settlement Agreement and each of the proposed Adaptive Management Plans, Monitoring Plans, and Protection-Mitigation-Enhancement Measures for the Project.

As you review the information, please contact Bill or me if you need any additional clarification or information.

Henry

Henry Mealing

Fisheries Biologist / Project Manager

Kleinschmidt

204 Caughman Farm Lane Suite 301 Lexington, SC 29072 706-339-3209

www.KleinschmidtGroup.com

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From: Pace Wilber - NOAA Federal

To: Kelly Kirven

Cc: ARGENTIERI, WILLIAM R; Fritz Rohde - NOAA Federal

Subject: Re: FW: Preliminary Parr CRSA Package for Review

Date: Friday, March 30, 2018 9:01:16 AM

Hi Kelly.

For the CRSA . . .

Section 4.1.2

Suggest adding "of" to . . .

The signatories to this CRSA recognize that the Commission will incorporate into the new license those articles required by 18 C.F.R. 2.9 (L-Forms), as well as such other articles as the Commission believes are necessary to fulfill its responsibilities in the administration and enforcement of the new license.

Section 4.1.3

We are not suggesting a change to the CRSA, but I want to restate that the NMFS may prescribe fish passage using the triggers set in the Accord. This is subtly different than the reservation of authority for a fishway prescription referred to in this section of the CRSA. The possibility of the NMFS prescribing a fishway in this manner was discussed with SCE&G during review of earlier drafts of the CRSA and during the meeting with SCE&G on February 7, 2018, in St Petersburg.

Section 4.2.1

Suggest adding "FERC's" to . . .

Should the <u>FERC's</u> draft National Environmental Policy Act (NEPA) document be inconsistent with the CRSA, the signatories will work cooperatively to develop appropriate responses to address the inconsistencies.

Section 4.1.4

Suggest adding "based on the currently available information"to

By the signing of this agreement, the USFWS and NMFS each represents that it believes, based on the currently available information, the measures specified by the CRSA will protect rare, threatened and endangered (RT&E) species and that it intends to issue a Biological Opinion (BO) consistent with such measures.

Section 5.0

Suggest adding "concentration" to

Dissolved oxygen <u>concentration</u> (DO) – One of the most commonly employed measures of water quality, DO is the amount of gaseous oxygen in a liquid. DO is generally expressed in

units of parts per million (ppm) or milligrams per liter (mg/L).

For consistency with how other definitions with acronyms are introduced, suggest adding "Instream Flow Technical Working Committee" to

Target Flow – The instantaneous minimum flow recommended by the Instream Flow Technical Working Committee (IFTWC) to be released from the Project.

Acronyms

Suggest adding "concentration" to

DO Dissolved oxygen concentration

Suggest confirming the acronym HEC-RES. I believe the E stands for Engineering (not Engineer). Also, I am familiar HEC-ResSim, but not HEC-RES. http://www.hec.usace.army.mil/software/hec-ressim/documentation/HEC-ResSim_31_UsersManual.pdf

Thank you for you considerations, Pace

Regulatory Coordinator

On Wed, Mar 28, 2018 at 1:15 PM, Pace Wilber - NOAA Federal ce.wilber@noaa.gov wrote:

Hi Kelly. Sorry for the delay. I've not had much office team the last few weeks. I will have the comments to you COB tomorrow. Thanks for checking in. Pace

On Wed, Mar 28, 2018 at 12:33 PM, Kelly Kirven < Kelly.Kirven@

kleinschmidtgroup.com> wrote: Hi Pace, I just wanted to check in and see if the comments on the CRSA package were ready. If not, do you have an idea of when they will be available? Thanks! Kelly **Kelly Miller Kirven**

Kleinschmidt Office: 803.462.5633

Cell: 423.747.2660

www.KleinschmidtGroup.com

From: Pace Wilber - NOAA Federal [mailto:pace.wilber@noaa.gov]

Sent: Friday, March 16, 2018 3:10 PM

To: Kelly Kirven < Kelly.Kirven@KleinschmidtGroup.com > **Cc:** ARGENTIERI, WILLIAM R < <u>BARGENTIERI@scana.com</u> > **Subject:** Re: FW: Preliminary Parr CRSA Package for Review

Hi Kelly. We need a few extra days (say Tuesday, Mar 20). I had jury duty this week, and I am still recovering from the time out of the office. I expect our comments will be minor, but we will propose at least two changes to the main part of the CRSA. Pace

On Thu, Mar 8, 2018 at 9:52 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Good morning all,

This is a reminder that comments on the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package are due by next Friday, March 16th.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

```
From: Kelly Kirven
Sent: Wednesday, January 24, 2018 3:26 PM
To: Alex Pellett (<u>PellettC@dnr.sc.gov</u>) < <u>PellettC@dnr.sc.gov</u>>; Alison Jakupca
< Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R
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<marshallb@dnr.sc.gov>; Bill Stangler (CRK@congareeriverkeeper.org)
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< rachel.sweeney@noaa.gov>; Tom McCoy (thomas mccoy@fws.gov)
<thomas mccoy@fws.gov>
Subject: Preliminary Parr CRSA Package for Review
```

Good afternoon.

On January 10, 2018, I distributed an email regarding the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package for legal review. We ask that you please submit comments on this package by Friday, March 16th. This will allow us enough time to review comments and meet with stakeholders to resolve any issues.

In addition to the CRSA, the package included two documents that will be used in the Land Protection Memorandum of Understanding (MOU) that SCE&G is drafting. The MOU is not complete yet, but SCE&G will distribute this document to interested stakeholders as soon as possible.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

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--

Pace Wilber, Ph.D.

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From: Bill Marshall
To: Kelly Kirven

Subject: Parr - erosion monitoring plan
Date: Monday, July 17, 2017 3:39:21 PM

Attachments: 2017-05-01 Parr Hydro Project Erosion Monitoring Plan for TWC review (Bill Edits).docx

Hi Kelly –

For tomorrow's meeting... within the attached, I have a few comments and suggestions related to the erosion monitoring plan. Thanks.

Bill Marshall

SCDNR

From: Bill Marshall
To: Kelly Kirven

Subject: RE: Parr AMPs and Monitoring Plans - Revised - Email 1 of 2

Date: Wednesday, August 09, 2017 6:50:49 PM

Hey Kelly,

Dick and I had a few editing suggestions for the Min Flows AMP on pages 4 and 9 related to the term "operation margin" --

- 1) We prefer the term "operation margin" over "operation margin buffer." The second term seems redundant.
- 2) Edits and comments on p. 5 are suggestions for describing how operation margin is used. See you on Thursday morning.

 Bill

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

Sent: Monday, August 07, 2017 10:06 AM

To: Alex Pellett; Alison Jakupca; ARGENTIERI, WILLIAM R; Bill Marshall; Bill Stangler (CRK@congareeriverkeeper.org); Caleb Gaston (caleb.gaston@scana.com); Chad Altman (altmankc@dhec.sc.gov); Charlene Coleman (cheetahtrk@yahoo.com); Chris Johnston (JohnstonWC@gmail.com); Chuck Hightower (hightocw@dhec.sc.gov); David Eargle (eargleda@dhec.sc.gov); Dick Christie; Frank_Henning@nps.gov; Fritz Rohde (Fritz.Rohde@noaa.gov); Gerrit Jobsis (gjobsis@americanrivers.org); Greg Mixon; Henry Mealing; J. Hagood Hamilton Jr. (jhamilton@scana.com); Jim Glover (gloverjb@dhec.sc.gov); Jon Durham (jondurham@bellsouth.net); Kelly Kirven; Lorianne Riggin; Malcolm Leaphart (mwleapjr@att.net); Mark Caldwell (mark_caldwell@fws.gov); Mel Jenkins (greenpalmetto@yahoo.com); Melanie Olds (melanie olds@fws.gov); 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 Jr.; Scott Castleberry (castlews@dhec.sc.gov); Scott Harder; STUTTS, BRANDON G; Wayne and Ginny Boland (wayneboland@bellsouth.net); Alison Jakupca; BRESNAHAN, AMY; Henry Mealing; Jay Maher; Kelly Kirven; Ley, Amanda; Alison Jakupca; Henry Mealing; Jay Maher; Jordan Johnson; Karla Reece (Karla.Reece@noaa.gov); Kelly Kirven; Robert Stroud; Brandon Kulik; Dick Christie (dchristie@comporium.net); Brandon McCartha (Brandon.McCartha@scana.com); btrump@scana.com; CHASTAIN, WILLIAM K JR; Dan Adams (John.Adams@scana.com); Edye Joyner; Erich Miarka (erich.miarka@gillscreekwatershed.org); Jeff Carter (jmcarter00@sc.rr.com); Joe Wojcicki; John Fantry (john@Fantrylaw.com); Karen Swank Kustafik (kakustafik@columbiasc.net); Mark Davis; Merrill McGregor (merrillm@scccl.org); tboozer@scana.com; William Hendrix (HendrixWB@dot.state.sc.us); Corbin Johnson (Corbin.Johnson@scana.com)

Subject: Parr AMPs and Monitoring Plans - Revised - Email 1 of 2 Good morning all,

At our AMP/MP meetings in July and our first Settlement Agreement meeting last week, several revisions were discussed for the AMPs and monitoring plans. The AMPs and monitoring plans were revised based on these discussions – we will review these revisions at this Thursday's Settlement Agreement meeting.

Attached to this email are the following:

- Draft Downstream Flow Fluctuation AMP
- Draft Min Flow AMP

- Draft West Channel AMP
- Draft Monticello Reservoir Habitat Enhancement Plan
- Parr/Monticello Evaporation Loss Table (this will be included as an appendix to several AMPs)

Due to size, the remaining monitoring plans are attached to a second email.

Thanks,

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

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 $\underline{www.KleinschmidtGroup.com}$

From: Olds, Melanie
To: Kelly Kirven

Cc: Tom McCoy; Henry Mealing; ARGENTIERI, WILLIAM R

Subject: Re: FW: Preliminary Parr CRSA Package for Review

Date: Monday, April 09, 2018 2:15:10 PM

Kelly,

The U.S. Fish and Wildlife Service does not have any comments on the Parr Settlement Agreement at this time, we would like to reserve the right to proved substantive comments in the further if necessary. Please let me know if you have any further questions.

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, Mar 8, 2018 at 11:06 AM, ARGENTIERI, WILLIAM R < BARGENTIERI@scana.com> wrote:

Thanks Melanie for the response.

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

Sent: Thursday, March 08, 2018 10:30 AM

To: Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>>

Cc: ARGENTIERI, WILLIAM R < <u>BARGENTIERI@scana.com</u>>; Tom McCoy

<thomas_mccoy@fws.gov>; Henry Mealing < Henry.Mealing@kleinschmidtgroup.com>

Subject: Re: FW: Preliminary Parr CRSA Package for Review

***This is an EXTERNAL email from "Olds, Melanie" (melanie_olds@fws.gov). Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Good Morning Kelly,

I wanted to let you know that we will provide comments, I'm just not sure that it will

be by March 16th. The package is with our solicitor right now but took longer to get it to them than I would have anticipated. I will get those comments to you when I can.				
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				
NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.				
On Thu, Mar 8, 2018 at 9:52 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u> > wrote:				
Good morning all,				
This is a reminder that comments on the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package are due by next Friday, March 16 th .				
Thanks,				
Kelly				

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

```
From: Kelly Kirven
Sent: Wednesday, January 24, 2018 3:26 PM
To: Alex Pellett (<u>PellettC@dnr.sc.gov</u>) < <u>PellettC@dnr.sc.gov</u>>; Alison Jakupca
< Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R
<<u>BARGENTIERI@scana.com</u>>; Bill Marshall (marshallb@dnr.sc.gov)
< marshallb@dnr.sc.gov >; Bill Stangler (CRK@congareeriverkeeper.org)
<<u>CRK@congareeriverkeeper.org</u>>; Caleb Gaston (<u>caleb.gaston@scana.com</u>)
<<u>caleb.gaston@scana.com</u>>; Chad Altman (<u>altmankc@dhec.sc.gov</u>)
<altmankc@dhec.sc.gov>; Charlene Coleman (cheetahtrk@vahoo.com)
<<u>cheetahtrk@yahoo.com</u>>; Chris Johnston (<u>JohnstonWC@gmail.com</u>)
<JohnstonWC@gmail.com>; Chuck Hightower (hightocw@dhec.sc.gov)
< hightocw@dhec.sc.gov >; David Eargle (eargleda@dhec.sc.gov)
<eargleda@dhec.sc.gov>; Dick Christie (christied@dnr.sc.gov) <christied@dnr.sc.gov>;
Fritz Rohde (Fritz.Rohde@noaa.gov) < Fritz.Rohde@noaa.gov>; Gerrit Jobsis
(gjobsis@americanrivers.org) < gjobsis@americanrivers.org>; Greg Mixon
(mixong@dnr.sc.gov) <mixong@dnr.sc.gov>; Henry Mealing
< Henry. Mealing @ KleinschmidtGroup.com >; J. Hagood Hamilton Jr.
(ihamilton@scana.com) < ihamilton@scana.com>; Jim Glover (gloverib@dhec.sc.gov)
<gloverjb@dhec.sc.gov>; Jon Durham (jondurham@bellsouth.net)
<jondurham@bellsouth.net>; Kelly Kirven < Kelly.Kirven@KleinschmidtGroup.com>;
Lorianne Riggin (<u>RigginL@dnr.sc.gov</u>) < <u>RigginL@dnr.sc.gov</u>>; Malcolm Leaphart
(mwleapir@att.net) <mwleapir@att.net>; Mark Caldwell (mark_caldwell@fws.gov)
<mark caldwell@fws.gov>; Mel Jenkins (greenpalmetto@yahoo.com)
<greenpalmetto@yahoo.com>; Melanie Olds (melanie olds@fws.gov)
<melanie olds@fws.gov>; Pace Wilber (Pace.Wilber@noaa.gov)
< <u>Pace.Wilber@noaa.gov</u>>; <u>rammarell@scana.com</u>; Randy Mahan
(randolph.mahan@scana.com) < randolph.mahan@scana.com>; randy mahan
(<u>rmahan@sc.rr.com</u>) < <u>rmahan@sc.rr.com</u>>; Ron Ahle < <u>AhleR@dnr.sc.gov</u>>; Rusty
Wenerick (<u>weneriwr@dhec.sc.gov</u>) < <u>weneriwr@dhec.sc.gov</u>>; Sam Stokes
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<<u>castlews@dhec.sc.gov</u>>; Scott Harder <<u>HarderS@dnr.sc.gov</u>>; STUTTS, BRANDON G
```

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<<u>BSTUTTS@scana.com</u>>; Wayne and Ginny Boland (<u>wayneboland@bellsouth.net</u>)
<wayneboland@bellsouth.net>; Alison Jakupca < Alison.Jakupca@KleinschmidtGr
oup.com>; BRESNAHAN, AMY < Amy.Bresnahan@scana.com>; Henry Mealing
< Henry. Mealing @ Kleinschmidt Group.com >; Jay Maher
<Jay.Maher@KleinschmidtGroup.com>; Kelly Kirven
< Kelly. Kirven@KleinschmidtGroup.com>; Ley, Amanda < leyah@dhec.sc.gov>; Alison
Jakupca < Alison.Jakupca @ KleinschmidtGroup.com>; Henry Mealing
<Henry.Mealing@KleinschmidtGroup.com>; Jay Maher
<Jay.Maher@KleinschmidtGroup.com>; Jordan Johnson
<Jordan.Johnson@KleinschmidtGroup.com>; Karla Reece (Karla.Reece@noaa.gov)
< Karla.Reece@noaa.gov>; Kelly Kirven < Kelly.Kirven@KleinschmidtGroup.com>;
Robert Stroud (<u>StroudR@dnr.sc.gov</u>) < <u>StroudR@dnr.sc.gov</u>>; Brandon Kulik
< Brandon.Kulik@KleinschmidtGroup.com>; Dick Christie (dchristie@comporium.net)
<a href="character"><dchristie@comporium.net></a>; Brandon McCartha (Brandon.McCartha@scana.com)
< <u>Brandon.McCartha@scana.com</u>>; <u>btrump@scana.com</u>; CHASTAIN, WILLIAM K JR
< WKCHASTAIN@scana.com>; Dan Adams (John.Adams@scana.com)
<<u>John.Adams@scana.com</u>>; Edye Joyner <<u>edye@bteamkayaking.com</u>>; Erich Miarka
(erich.miarka@gillscreekwatershed.org) <erich.miarka@gillscreekwatershed.org>; Jeff
Carter (imcarter00@sc.rr.com) <imcarter00@sc.rr.com>: Joe Wojcicki
<bypas2000@yahoo.com>; John Fantry (john@Fantrylaw.com) <john@Fantrylaw.com>;
Karen Swank Kustafik (kakustafik@columbiasc.net) < kakustafik@columbiasc.net>;
Mark Davis < mddavis629@gmail.com>; Merrill McGregor (merrillm@scccl.org)
<merrillm@scccl.org>; tboozer@scana.com; William Hendrix
(HendrixWB@dot.state.sc.us) < HendrixWB@dot.state.sc.us>; Corbin Johnson
(Corbin.Johnson@scana.com) < Corbin.Johnson@scana.com>; Bret Hoffman
<<u>Bret.Hoffman@KleinschmidtGroup.com</u>>; Bruce Halverson
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(emjohnson@scdah.state.sc.us) <emjohnson@scdah.state.sc.us>; J. Keith Whalen
(jwhalen@fs.fed.us) <jwhalen@fs.fed.us>; James F. Bates (jbates@fs.fed.us)
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Marcharia (marcharia@aol.com) < marcharia@aol.com>; Larry Newton
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(Mike.Mastry@noaa.gov) < Mike.Mastry@noaa.gov>; Mike McSwain
(mcswain@comcast.net) < mcswain@comcast.net>; Phil Gaines (pgaines@scprt.com)
<pgaines@scprt.com>; Rachel Sweeney (rachel.sweeney@noaa.gov)
<rachel.sweeney@noaa.gov>; Tom McCoy (thomas mccoy@fws.gov)
<thomas mccoy@fws.gov>
Subject: Preliminary Parr CRSA Package for Review
```

Good afternoon,

On January 10, 2018, I distributed an email regarding the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package for legal review. We ask that you please submit comments on this package by Friday, March 16th. This will allow us enough time to review comments and meet with stakeholders to resolve any

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In addition to the CRSA, the package included two documents that will be used in the Land Protection Memorandum of Understanding (MOU) that SCE&G is drafting. The MOU is not complete yet, but SCE&G will distribute this document to interested stakeholders as soon as possible.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

From: <u>Maercklein, Mary -FS</u>
To: <u>Kelly Kirven</u>

Subject: RE: Parr Hydroelectric Project Relicensing

Date: Friday, June 09, 2017 2:14:18 PM

Hello Kelly – thank you for the great info and project update. I have received all the documents and will review them. I agree with the Beth LeMasters' comments in the meeting notes. Let me know if you need anything from me or my staff. Have a great weekend.

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

Sent: Thursday, June 08, 2017 12:30 PM

To: Maercklein, Mary -FS <mmaercklein@fs.fed.us>

Cc: Henry Mealing < Henry. Mealing @ Kleinschmidt Group.com >; ARGENTIERI, WILLIAM R

<BARGENTIERI@scana.com>

Subject: Parr Hydroelectric Project Relicensing

Dear Ms. Maercklein,

Congratulations on your new position as the District Ranger for the Enoree Ranger District with the U.S. Forest Service (USFS). I wanted to reach out to you and provide some information regarding the Parr Hydroelectric Project (FERC No. 1894) Relicensing. SCE&G is in the middle of a multi-year relicensing process, working to obtain a new license for the Parr Project. If you have a few minutes, please visit the Project website at www.parrfairfieldrelicense.com.

On May 28, 2015, SCE&G met with representatives from the USFS to discuss the Parr relicensing, and identify any information requests the USFS may have. I have attached the notes from that meeting to this email for your reference. As you will see in the notes, the USFS representatives that we met with indicated they would be interested in seeing the results of the Recreation Use and Needs Study (RUNS), and reviewing the waterfowl hunter survey we developed as part of the RUNS. The draft survey was sent to the USFS for review shortly after the meeting, and the questions were approved. The survey results are included in the RUNS Report, which I am attaching to this email for you.

Based on the results of the RUNS, SCE&G has begun developing a Recreation Management Plan (RMP) with stakeholders, which I have also attached to this email. Due to size, I will send you the associated RMP appendices in a separate email. I have also attached to this email reports on the aerial waterfowl surveys for Parr and Monticello reservoirs, that were completed as part of relicensing. These surveys were requested by stakeholders and provide data on the species and abundance of waterfowl at the Project, including the Broad River and Enoree Waterfowl Management Areas.

I am also adding you to our email distribution list for this Project. You will be notified about upcoming meetings, and you will receive draft and final documents that we are developing as part of relicensing. You should have received a notification last week that the Draft License Application has been filed with FERC, and is ready for agency and stakeholder review and comment.

If you have any questions about the items I am sending to you, please don't hesitate to call or email Bill Argentieri (SCE&G Project Manager) or Henry Mealing (Kleinschmidt Project Manager). They are copied on this email, and I am including their individual phone numbers below. Additionally, if you would like to discuss the relicensing process in more detail, Bill and Henry would be glad to meet with you in person at your convenience.

Bill Argentieri – 803-217-9162 Henry Mealing – 803-462-5629

We look forward to working with you as we develop the Final License Application and Settlement Agreement for the Parr Relicensing.

Kelly

Kelly Miller Kirven
Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

www.KleinschmidtGroup.com

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From: ARGENTIERI, WILLIAM R

To: <u>Derrick Miller</u>; <u>"jtwaroski@fs.fed.us"</u>

Cc: Henry Mealing; AMMARELL, RAYMOND R; Kelly Kirven; Alison Jakupca

Subject: SCE&G and USFS Conference call on 10-10-17

Date: Wednesday, October 04, 2017 10:51:26 AM

Derrick and Jim.

Thanks for taking the time to talk with us regarding these matters.

Here is the agenda for our conference call next week. We might want to discuss some of the other USFS 4(e) conditions based on responses to the conditions listed below.

- 1. General History of Parr Hydro Relicensing
- 2. USFS 4(e) Conditions submitted as comments to the Parr Hydro Draft License Application
 - a. Condition 1 changes to the **Project and its operation**
 - b. Condition 3 Requirement to obtain a Forest Service Special Use Authorization
 - c. Condition 10 condition survey and a proposed maintenance plan subject to Forest Service review and approval as appropriate once each year
 - d. Condition 13 Licensee shall annually consult with Forest Service. A status report regarding **implementation of license conditions**.
 - e. Condition 14 Consultation Group To the extent topics covered in Condition No. 13 affect project-affected areas outside Forest Service jurisdiction
 - f. Condition 18 Aquatic Invasive Species Management and Monitoring Plan and Vegetation and Non-Native Invasive Plant Management (NNIP) Management Plan
 - g. Condition 20 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.
 - h. Condition 21 Fire and Fuels Management Plan
 - i. Condition 23 Licensee shall complete... detailed construction plans and specifications with drawings for design and construction of a vehicle turnaround area with parking area for six vehicles and... hardened path from parking area to step down location.
- 3. SCE&G flowage rights on USFS land inside the Parr Hydro Project boundary 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: ARGENTIERI, WILLIAM R

To: <u>Mary Maercklein</u>; <u>Derrick Miller</u>; <u>"jtwaroski@fs.fed.us"</u>

Cc: Kelly Kirven; AMMARELL, RAYMOND R; Henry Mealing; Alison Jakupca

Subject: Draft Parr Hydro Relicensing Conference Call Notes

Date: Monday, October 23, 2017 11:19:29 AM

Attachments: draft 101017 USFS meeting notes for USFS review.doc

All,

Attached are the draft notes from the conference call held on October 10 between SCE&G and the USFS regarding Parr Hydro Relicensing Section 4(e) Conditions. Please review them and provide any suggested changes or comments by November 6. I will send all of you the final notes after making the appropriate changes.

Thank you,

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: <u>Twaroski, Jim -FS</u>

To: ARGENTIERI, WILLIAM R; Maercklein, Mary -FS; Miller, Derrick L -FS; Twaroski, Jim -FS

Cc: AMMARELL, RAYMOND R; Henry Mealing; Alison Jakupca; Kelly Kirven

Subject: RE: Parr Hydro Relicensing 4(e) Conditions - SCE&G Proposed Changes

Date: Thursday, November 09, 2017 9:26:07 AM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png

Thank you for the feedback on the FS 4e conditions.

Your proposed changes are bit more extensive than I had first thought and will require more time to run these changes by our attorney and Washington Office.

In the meantime, I support the Francis Marion/Sumter National Forest staff's engagement with SCE&G on the plans stated in your email. I will rely on Derrick to coordinate that engagement.

I believe the review of suggested changes can be completed by mid-December. I will work with Derrick to schedule a call with you and your staff sometime in the second week of December.



James Twaroski
Realty Specialist/FERC Coordinator

Forest Service Southern Region Lands/Minerals/Uses

p: 404-347-2871 f: 404-347-2437 jtwaroski@fs.fed.us

1720 Peachtree Road, NW Suite 792 South Atlanta, GA 30309 www.fs.fed.us

www.fs.fed.us

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From: ARGENTIERI, WILLIAM R [mailto:BARGENTIERI@scana.com]

Sent: Thursday, November 09, 2017 9:10 AM

To: Maercklein, Mary -FS <mmaercklein@fs.fed.us>; Miller, Derrick L -FS <derrickmiller@fs.fed.us>;

Twaroski, Jim -FS <jtwaroski@fs.fed.us>

Cc: AMMARELL, RAYMOND R < RAMMARELL@scana.com>; Henry Mealing

<Henry.Mealing@KleinschmidtGroup.com>; 'Alison Jakupca'

<Alison.Jakupca@KleinschmidtGroup.com>; Kelly Kirven <Kelly.Kirven@KleinschmidtGroup.com>

Subject: Parr Hydro Relicensing 4(e) Conditions - SCE&G Proposed Changes

We appreciate the opportunity to provide our recommended changes to your preliminary 4(e) Conditions associated with our Parr Relicensing Project.

Attached is a document with our SCE&G recommended changes to the preliminary 4(e) Conditions filed by the USFS regarding the Parr Hydro Relicensing Project (FERC Project 1894). It should be noted that the Word document Derrick provided was not exactly the same as what was filed with the FERC on August 28, 2017. The differences appear to be minor so, we used the Word document to make our proposed changes.

Under a couple of the Conditions we recommend working with the USFS on our Parr Reservoir Shoreline Management Plan (Condition 18 – Invasive Species Management) and Erosion Monitoring Plan (Condition 20 – Erosion and Sediment Control and Management) prior to filing them with our Final License Application. If you are in agreement with that proposal, let us know so we can coordinate a meeting or conference call to discuss any proposed changes to those documents.

Our comment to Condition 14 references the Adaptive Management Plans and Monitoring Plans already developed in consultation with the other stakeholders and we refer you to the following link to view those plans: http://www.parrfairfieldrelicense.com/studyreport.html

Please review our proposed changes and let us know when you will be ready for another conference call to discuss these changes.

Thank you,

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

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From: ARGENTIERI, WILLIAM R

To: <u>Kelly Kirven</u>; <u>Henry Mealing</u>; <u>Alison Jakupca</u>; <u>AMMARELL, RAYMOND R</u>

Subject: FW: Parr Shoals 4e Conditions

Date: Thursday, November 30, 2017 3:35:56 PM

Attachments: image001.png

image002.png image003.png image004.png

20170829 - 4e Standard Conditions SCEG Proposed Changes 11-28-17.docx

All

Attached is USFS response to our suggested changes to their 4(e) conditions. Please review the document and let me know if you have any questions or need further clarification on any of the items.

Bill

From: Miller, Derrick L -FS [mailto:derrickmiller@fs.fed.us]

Sent: Thursday, November 30, 2017 3:06 PM

To: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>

Subject: Parr Shoals 4e Conditions

***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.

Please review my comments in the attached document. Myself and District Ranger Mary Maercklein agree to the proposed changes.



Derrick L. Miller, Forester Special Uses Program Manager

Forest Service

Francis Marion & Sumter National Forest

p: 803-561-4056 f: 803-561-4004

derrickmiller@fs.fed.us

4931 Broad River Road Columbia, SC 29212

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From: ARGENTIERI, WILLIAM R

To: <u>Derrick Miller</u>

Cc: Henry Mealing; Kelly Kirven; Alison Jakupca; AMMARELL, RAYMOND R; Mary Maercklein

Subject: Parr Hydro Relicensing - Revised USFS 4(e) Conditions (clean copy)

Date: Tuesday, December 05, 2017 3:40:00 PM

Attachments: 20170809 - Parr Hydro USFS 4e Standard Conditions Revised with SCE&G 12-05-2017.docx

Derrick,

SCE&G has accepted the proposed track changes to the Parr Hydro Relicensing USFS 4(e) Conditions based on the response we received from you. I believe it is ready to submit to the USFS Atlanta office for their review. Please let me know if you have any questions or need additional information.

We look forward to finalizing this document early next year, prior to our filing of the final license application.

Thank you for your assistance with this matter.

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: ARGENTIERI, WILLIAM R

To: <u>Derrick Miller</u>

Cc:Henry Mealing; Kelly KirvenSubject:USFS 4(e) Conditions Review StatusDate:Thursday, January 18, 2018 3:11:36 PM

Attachments: 2017-09-15 Parr Hydro Project Erosion Monitoring Plan FINAL.pdf

Derrick.

I hope you had a nice holiday at the end of last year.

Before the potential government shut down tomorrow night, I wanted to follow up with you regarding the status of a few items you are working on associated with our Parr Hydro Relicensing Project. I am hoping you might be able to let me know how you are coming along on the following items.

- Review of the draft USFS 4(e) Conditions document (clean version) with our suggested changes. (see my 12/5/17 email)
- Review of the draft Parr Reservoir Shoreline Management Plan with our proposed invasive species language to address our suggested changes to Condition 18 (Invasive Species Management). (see my 12/5/17 email)
- Review of the October 17, 2017 conference call notes. (see my 10/23/2017 email)
- Review of our Erosion Monitoring Plan to address our suggested changes to Condition 19 (Erosion and Sediment Control and Management). I thought I sent this plan to you last year, but I cannot find the email. So, if you have the document already, great. If not, I am attaching it to this email so you may review it for acceptability.

Thanks for looking into this.

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: <u>Twaroski, Jim -FS</u>

To: ARGENTIERI, WILLIAM R; Miller, Derrick L -FS; Maercklein, Mary -FS

Cc: <u>Henry Mealing</u>; <u>Kelly Kirven</u>; <u>Alison Jakupca</u>

Subject: RE: Parr Hydro Relicensing - USFS 4(e) Conditions Status

Date: Monday, March 05, 2018 11:03:54 AM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png

William.

The briefing with the Regional Forester on all of these items has been delayed several times for other issues

I will be (and have been) trying to get back on their schedule. I will set the end of March for a deadline to get back to you.

The Forest I believe has taken a look at the two plans and can provide that input/feedback directly to you if they have not yet done so (Derrick, please coordinate).

My apologies for the delay, but I expect no substantive changes to the drafts you worked on with the FS.



Jim Twaroski Realty Specialist Special Uses/Hydropower

Forest Service

Southern Region-Lands/Minerals/Uses

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From: ARGENTIERI, WILLIAM R [mailto:BARGENTIERI@scana.com]

Sent: Monday, March 5, 2018 9:33 AM

To: Miller, Derrick L -FS <derrickmiller@fs.fed.us>; Maercklein, Mary -FS <mmaercklein@fs.fed.us>;

Twaroski, Jim -FS <jtwaroski@fs.fed.us>

Cc: Henry Mealing < Henry. Mealing @ Kleinschmidt Group.com >; Kelly Kirven

<Kelly.Kirven@KleinschmidtGroup.com>; 'Alison Jakupca'

<Alison.Jakupca@KleinschmidtGroup.com>

Subject: Parr Hydro Relicensing - USFS 4(e) Conditions Status

I am checking in with all of you to find out the status of the changes we suggested to the USFS 4(e) conditions to our Parr Hydro new license application. In particular, this includes the following items:

- Review of the draft USFS 4(e) Conditions document (clean version) with our suggested changes. (see my 12/5/17 email)
- Review of the draft Parr Reservoir Shoreline Management Plan with our proposed invasive species language to address our suggested changes to Condition 18 (Invasive Species Management). (see my 12/5/17 email)
- Review of the October 17, 2017 conference call notes. (see my 10/23/2017 email)
- Review of our Erosion Monitoring Plan to address our suggested changes to Condition 19 (Erosion and Sediment Control and Management). (see my 1/18/18 email to Derrick only)

Do you have an estimate of when you might be able to response to our documents?

Please let me know if you need any additional information to complete your review.

Thank you,

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

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penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

From: Henry Mealing

To: Olds, Melanie; Kelly Kirven

Cc: ARGENTIERI, WILLIAM R; rammarell@scana.com; Jared Porter

Subject: RE: Draft USFWS Meeting Notes - 6/22/17

Date: Monday, July 03, 2017 9:56:51 AM

Attachments: <u>image002.png</u>

Melanie.

Thanks for your edits. We will add them in and Kelly will put these in the correspondence file.

Look forward to seeing you on July 13th. Call if you have questions on any relicensing topic between now and then.

Have a great 4th of July.

Henry

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

Sent: Monday, July 03, 2017 9:03 AM

To: Kelly Kirven

Cc: ARGENTIERI, WILLIAM R; Henry Mealing; rammarell@scana.com; Jared Porter

Subject: Re: Draft USFWS Meeting Notes - 6/22/17

Good Morning Kelly,

Attached are my edits to the mussel conference call notes.

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 Mon, Jun 26, 2017 at 11:06 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Hi Melanie,

Attached are draft notes from our conference call last Thursday. Please review and let me know if you have any edits or comments.

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633 Cell: 803.917.4528

From: **Henry Mealing** Kelly Kirven To: Subject: FW: Bat Conservation

Tuesday, August 15, 2017 9:00:35 AM Date: Attachments: SCBatConservationPlanChapter4.pdf

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

Sent: Tuesday, August 15, 2017 8:45 AM

To: William R Argentieri <bargentieri@scana.com>

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

Subject: Bat Conservation

Good Morning Bill,

As per our discussion about voluntary conservation measures that SCE&G could adapt into their forestry practices for bats, I couldn't find anything that our office had written up specifically for SC but I've cut and pasted, at the bottom, the ones that are listed on the USFWS northern long-eared bat page. This page also gives some good information about the 4(d) rule. https://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEBFedProjects.html

I'm also attaching SCDNRs Bat Conservation Plan Ch. 4. Section 6 has some more information about protecting and enhancing bat habitat.

Let me know if you'd like anything else,

Melanie

Additional voluntary conservation measures, where appropriate, can reduce the impacts of activities on northern long-eared bats. Conservation measures include:

- a. Conduct tree removal activities outside of the northern long-eared bat pup season (June 1 to July 31) and/or the active season (April 1 to October 31). This will minimize impacts to pups at roosts not yet identified.
- b. Avoid clearing suitable spring staging and fall swarming habitat within a 5-mile radius of known or assumed northern long-eared bat hibernacula during the staging and swarming seasons (April 1 to May 15 and August 15 to November 14, respectively).
- c. Manage forests to ensure a continual supply of snags and other suitable maternity roost trees.
- d. Conduct prescribed burns outside of the pup season (June 1 to July 31) and/or the active season (April 1 to October 31). Avoid high-intensity burns (causing tree scorch higher than northern long-eared bat roosting heights) during the summer maternity season to minimize direct impacts to northern long-eared bat.
- e. Perform any bridge repair, retrofit, maintenance, and/or rehabilitation work outside of the northern long-eared bat active season (April 1 to October 31) in areas where northern longeared bats are known to roost on bridges or where such use is likely.
- f. Do not use military smoke and obscurants within forested suitable northern long-eared bat habitat during the pup season (June 1 to July 31) and/or the active season (April 1 to October
- g. Minimize use of herbicides and pesticides. If necessary, spot treatment is preferred over aerial application.

- h. Evaluate the use of outdoor lighting during the active season and seek to minimize light pollution by angling lights downward or via other light minimization measures.
- i. Participate in actions to manage and reduce the impacts of white-nose syndrome on northern long-eared bat. Actions needed to investigate and manage white-nose syndrome are described in a national plan the Service developed in coordination with other state and federal agencies.

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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From: Olds, Melanie
To: Kelly Kirven

Subject: Re: Draft Parr CRSA Meeting Notes - 8/1/17

Date: Tuesday, August 22, 2017 9:54:15 AM

Attachments: draft 080117 JointRCG CRSA1 notes 8-21 FWScomments.doc

Voluntary Conservation Measures for NLEB.docx

Kelly,

Attached are my comments. I'm also attaching some voluntary conservation measures for bats (see comment in notes).

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 Mon, Aug 21, 2017 at 11:16 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Good morning,

Attached are the draft notes from the Parr CRSA meeting held on August 1st. Please review and send me any comments or edits by Friday, September 1st. Please note that the CRSA document with track changes from the meeting will be attached to the final version of these notes.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

From: Olds, Melanie
To: Kelly Kirven

Cc:William R Argentieri; Henry MealingSubject:Re: Parr CRSA Meeting #5 - 11/30/17Date:Wednesday, November 22, 2017 10:41:33 AM

Kelly,

Sorry but I'm probably not going to be able to attend the meeting on Thursday. I have reviewed the documents, particularity the mussel monitoring plan and have no additional comments.

As a side note, I just noticed that Mark Cantrell is still on your distribution list, can you please remove him, since he no longer involved in FERC nor located in the Carolinas.

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
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On Mon, Nov 20, 2017 at 2:56 PM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Good afternoon all,

Our next Comprehensive Relicensing Settlement Agreement (CRSA) meeting for the Parr Project is scheduled for Thursday, November 30th. Attached is the agenda for this meeting, as well as several documents we will be reviewing, including:

- Revised CRSA Appendix A
- Revised CRSA Appendix B
- New CRSA Appendix B-1
- Revised CRSA Appendix E
- Revised Mussel Monitoring Plan

The 2017 Turbine Venting Memo and the revised Fairfield Hydroacoustic Survey Report were sent out earlier in November, and the revised Navigation Report is forthcoming later this week.

If you have not already, please let me know if you will be attending the meeting and if you will need a call-in number.

Thanks,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

From: Olds, Melanie To: Kelly Kirven Cc: Henry Mealing; ARGENTIERI, WILLIAM R Subject: Date: Hi Kelly,

Re: revised Parr SMP with Invasive Species Wording

Monday, December 04, 2017 4:14:34 PM

I've reviewed the invasive species wording and don't have any comments or edits.

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 Mon, Nov 27, 2017 at 1:01 PM, Kelly Kirven < Kelly.Kirven@kleinschmidtgroup.com > wrote:

Hi Melanie,

We have revised the Parr Shoreline Management Plan to include some wording on invasive species. Could you please review this and see if you agree with our additions (shown in track changes in Section 11.3)? We would appreciate it if you could send over any comments or edits by Friday, December 8th.

Thanks!

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 803.917.4528

 From:
 ARGENTIERI, WILLIAM R

 To:
 "Olds, Melanie"; Kelly Kirven

 Cc:
 Tom McCoy; Henry Mealing

Subject: RE: FW: Preliminary Parr CRSA Package for Review

Date: Thursday, March 08, 2018 11:06:27 AM

Thanks Melanie for the response.

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

Sent: Thursday, March 08, 2018 10:30 AM

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

Cc: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>; Tom McCoy <thomas_mccoy@fws.gov>;

Henry Mealing <Henry.Mealing@kleinschmidtgroup.com>
Subject: Re: FW: Preliminary Parr CRSA Package for Review

***This is an EXTERNAL email from "Olds, Melanie" (melanie_olds@fws.gov). Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Good Morning Kelly,

I wanted to let you know that we will provide comments, I'm just not sure that it will be by March 16th. The package is with our solicitor right now but took longer to get it to them than I would have anticipated. I will get those comments to you when I can.

Thanks.

Melanie

N. I. C. O. I. L. Et L. A. HALLING DV. I. A. L. A. L. CERDO O. L. L. A.

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, Mar 8, 2018 at 9:52 AM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Good morning all,

This is a reminder that comments on the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package are due by next Friday, March 16th.

Thanks,

Kelly

Kelly Miller Kirven Regulatory Coordinator

KleinschmidtOffice: 803.462.5633
Cell: 803.917.4528

```
From: Kelly Kirven
Sent: Wednesday, January 24, 2018 3:26 PM
To: Alex Pellett (PellettC@dnr.sc.gov) < PellettC@dnr.sc.gov >; Alison Jakupca
< Alison.Jakupca@KleinschmidtGroup.com>; ARGENTIERI, WILLIAM R
<<u>BARGENTIERI@scana.com</u>>; Bill Marshall (marshallb@dnr.sc.gov)
<marshallb@dnr.sc.gov>; Bill Stangler (CRK@congareeriverkeeper.org)
< <u>CRK@congareeriverkeeper.org</u>>; Caleb Gaston (<u>caleb.gaston@scana.com</u>)
<caleb.gaston@scana.com>: Chad Altman (altmankc@dhec.sc.gov)
<altmankc@dhec.sc.gov>; Charlene Coleman (cheetahtrk@yahoo.com)
<cheetahtrk@yahoo.com>; Chris Johnston (JohnstonWC@gmail.com)
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Lorianne Riggin (RigginL@dnr.sc.gov) < RigginL@dnr.sc.gov>; Malcolm Leaphart
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Jakupca < Alison. Jakupca @ KleinschmidtGroup.com>; Henry Mealing
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Robert Stroud (StroudR@dnr.sc.gov) < StroudR@dnr.sc.gov>: Brandon Kulik
<Brandon.Kulik@KleinschmidtGroup.com>; Dick Christie (dchristie@comporium.net)
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<bypas2000@yahoo.com>; John Fantry (john@Fantrylaw.com) < john@Fantrylaw.com>;
Karen Swank Kustafik (<u>kakustafik@columbiasc.net</u>) < <u>kakustafik@columbiasc.net</u>>; Mark
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<ibates@fs.fed.us>; John Fantry (ifantry@bellsouth.net) <ifantry@bellsouth.net>; Kamau
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<mmaercklein@fs.fed.us>; Mike Mastry (Mike.Mastry@noaa.gov)
< <u>Mike.Mastry@noaa.gov</u>>; Mike McSwain (<u>mcswain@comcast.net</u>)
<mcswain@comcast.net>; Phil Gaines (pgaines@scprt.com) <pgaines@scprt.com>; Rachel
Sweeney (rachel.sweeney@noaa.gov) <rachel.sweeney@noaa.gov>; Tom McCoy
(thomas mccoy@fws.gov) <thomas mccoy@fws.gov>
Subject: Preliminary Parr CRSA Package for Review
```

Good afternoon,

On January 10, 2018, I distributed an email regarding the Preliminary Parr Comprehensive Relicensing Settlement Agreement (CRSA) Package for legal review. We ask that you please submit comments on this package by Friday, March 16th. This will allow us enough time to review comments and meet with stakeholders to resolve any issues.

In addition to the CRSA, the package included two documents that will be used in the Land Protection Memorandum of Understanding (MOU) that SCE&G is drafting. The MOU is not complete yet, but SCE&G will distribute this document to interested stakeholders as soon as possible.

Thanks, Kelly

Kelly Miller Kirven Regulatory Coordinator Kleinschmidt Office: 803.462.5633

Cell: 803.917.4528

From: Olds, Melanie
To: Kelly Kirven

Cc: William R Argentieri; Henry Mealing

Subject: Fwd: Finally

Date: Wednesday, May 02, 2018 10:38:23 AM

Attachments: 1 - 2017-11-16 DRAFT Parr Settlement Agreement + HMD.pdf

Inserts to Agreement from HMD.docx

Kelly,

I got in comments from our solicitor for the settlement agreement on Monday but have been out of the office sick till today. I've had very little time to review them myself but want to get them to you so you can start dealing with the ones that are relevant.

I plan on attending the meeting on Tues. in person.

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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----- Forwarded message -----

From: **Deal**, **Harriet** < <u>harriet.deal@sol.doi.gov</u>>

Date: Mon, Apr 30, 2018 at 4:11 PM

Subject: Finally

To: Melanie Olds < melanie olds@fws.gov >, Thomas McCoy < thomas mccoy@fws.gov >

Cc: Robert Tawes < robert tawes@fws.gov>

Hi: sorry I have had such a difficult time getting my act together--I know it has not been good for you all. Here is a mark-up of the pdf version of the draft Agreement. Just review the comment boxes--the highlighting was for me. Also attached is a Word document with some suggested language and provisions. They are referenced in the pdf draft of the Agreement.

I will make myself available at any time for the remainder of the day and evening and all-day tomorrow to discuss.

Thanks, Holly

Harriet (Holly) M. Deal Attorney-Advisor Office of the Solicitor United States Department of the Interior 404-309-3379 Confidentiality Notice: This e-mail message is intended only for the named recipients. It contains information that may be confidential, privileged, attorney work product, or otherwise exempt from disclosure under applicable law. If you have received this message in error, are not a named recipient, or are not the employee or agent responsible for delivering this message to a named recipient, be advised that any review, disclosure, use, dissemination, distribution, or reproduction of this message or its contents is strictly prohibited. Please notify us immediately that you have received this message in error, and delete the message.

From: Olds, Melanie
To: Henry Mealing

Cc: <u>Bill Argentieri - SCE&G (BArgentieri@scana.com)</u>; <u>Alison Jakupca</u>; <u>Kelly Kirven</u>

Subject: Re: [EXTERNAL] FW: Finally
Date: Thursday, May 03, 2018 3:37:26 PM

Henry,

For now leave the dispute resolution stuff off and we can discuss more on Tuesday.

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 Wed, May 2, 2018 at 4:34 PM, Henry Mealing < Henry.Mealing@kleinschmidtgroup.com> wrote:

Melanie,

Thanks for getting us FWS comments. I know that you haven't had much time to look over the attorney's comments but I have a few questions for you primarily on the Dispute Resolution Section.

Is a Dispute Resolution Section something that you will need to have ironed out prior to signing?

We noted that some of the suggested wording doesn't make sense and we are hesitant to send this out to the Relicensing Team until we got confirmation from you and Tom. Example in yellow.

ADD TO 4.2.1

This CRSA is made with the express understanding that it constitutes a negotiated resolution of issues specific to the Project. No Party will be deemed, by virtue of execution of this CRSA, to have established precedent or admitted or consented to any approach, methodology, or principle, except as expressly provided herein. In the event this CRSA is approved by FERC, such approval will not be deemed precedential or controlling regarding any particular issue or contention in any other proceeding.

This would mean that the CRSA is basically worthless. It even indicates that if the CRSA is part of the license articles – that the FERC license articles aren't binding. That doesn't make sense.

Would you and Tom take a quick run through the Dispute Resolution wording and let us know what you really want in the CRSA. I know that Tom and Bill have a process for resolving Disputes on the ACCORD and that might be a better process for us to adopt since we are using it – and it works.

We really appreciate your help and comments on the CRSA and look forward to making this agreement something that FWS can wholeheartedly support. Also, we don't want to share comments that your internal staff had planned to keep "internal". So, let me know what you think. Bill and I are around the rest of the week and on Monday to shape this up for sharing with the Relicensing Team.

Hope you are feeling better... Talk to you soon.

Henry

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

Sent: Wednesday, May 02, 2018 10:38 AM

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

Cc: William R Argentieri < bargentieri @scana.com>; Henry Mealing < Henry.Mealing @

KleinschmidtGroup.com>
Subject: Fwd: Finally

Kelly,

I got in comments from our solicitor for the settlement agreement on Monday but have been out of the office sick till today. I've had very little time to review them myself but want to get them to you so you can start dealing with the ones that are relevant.

I plan on attending the meeting on Tues. in person.				
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				
<u>843</u> -727-4707 ext. 205				
843-727-4218 fax				
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Forwarded message From: Deal, Harriet harriet.deal@sol.doi.gov Date: Mon, Apr 30, 2018 at 4:11 PM Subject: Finally To: Melanie Olds melanie_olds@fws.gov >, Thomas McCoy thomas_mccoy@fws.gov > Cc: Robert Tawes robert_tawes@fws.gov >				
Hi: sorry I have had such a difficult time getting my act togetherI know it has not been good for you all. Here is a mark-up of the pdf version of the draft Agreement. Just review the comment boxesthe highlighting was for me. Also attached is a Word document with some suggested language and provisions. They are referenced in the pdf draft of the Agreement.				
I will make myself available at any time for the remainder of the day and evening and all-day tomorrow to discuss.				

Thanks, Holly

Harriet (Holly) M. Deal

Attorney-Advisor

Office of the Solicitor

United States Department of the Interior

404-309-3379

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From: ARGENTIERI, WILLIAM R

To: "Olds, Melanie"

Cc: Henry Mealing; Alison Jakupca; Kelly Kirven

Subject: RE: [EXTERNAL] Comments regarding USFWS Changes to Definition of Material in CRSA

Date: Wednesday, May 09, 2018 11:42:14 AM

Great, thank you.

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

Sent: Wednesday, May 09, 2018 11:37 AM

To: ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>

Cc: Henry Mealing < Henry. Mealing@kleinschmidtgroup.com >; Alison Jakupca

<Alison.Jakupca@kleinschmidtgroup.com>; Kelly Kirven <Kelly.Kirven@kleinschmidtgroup.com>

Subject: Re: [EXTERNAL] Comments regarding USFWS Changes to Definition of Material in CRSA

***This is an EXTERNAL email from "Olds, Melanie" (melanie_olds@fws.gov). Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Hi Bill,

I just discussed this with Tom and we both agree that we should stick with the original definition presented in the CRSA for "material". It is broad enough to cover the the reasons why a signatory would need to withdraw. The definition that our solicitor presented was very specific and as you pointed allows for any signatory an out for very minor things that we as a group should be working together to resolve rather than running for the door, so please disregard that comment. We do not believe this should affect USFWS's ability to sign the document. Tom and myself will do our best to get the final CRSA routed to the correct people in our region and will try to get a signature by the mid-June timeline.

Melanie

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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 Wed, May 9, 2018 at 11:08 AM, ARGENTIERI, WILLIAM R < BARGENTIERI@scana.com > wrote:

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Melanie,

As a follow up from yesterday's meeting, we wanted to send you our comments regarding the USFWS added wording to the definition of "Material".

Our take on them is that they appear to be cumbersome and do not make a lot of sense. The first set of examples provide everyone with ample opportunities to withdraw. It appears that everyone can back out for almost any reason at all, no matter how minor. The second list of excluded items seems to be focused only on the Licensee. They places multiple limitations on SCE&G regarding what allows us to withdraw.

The first item i) leaves the door open for anyone (including the Licensee) to withdraw from the CRSA if anything is changed, even if a word is changed on one of the AMP/MPs. This appears to go against the spirit of the settlement agreement. We would hope everyone that signs on will work together to make the CRSA work even if minor modifications are made by the FERC. All stakeholders worked very hard to develop these plans and the CRSA, but this basically could throw all of that work out the window.

In the first paragraph of Section 4.2.6 of our original text, we believe that the definition of an Inconsistent Act provides the necessary options to allow the signatories to step back if something is changed by a Jurisdictional Body. Adding the wording proposed by your legal folks seems to make it easier for someone to walk away from the agreement, which is really not our desire.

Generally, SCE&G does not have any major issues with the suggested changes. We would suggest not adding them to the definition, but if USFWS needs them added in order to sign the CRSA, we will agree to include them.

Do you have a read on how important is it for USFWS to have this definition expended as proposed in order for you to sign the CRSA?

It was good to see you and hope/pray that you continue to feel stronger and better.

Thanks for your assistance with this matter.

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: [EXTERNAL] CRSA Signing and Meeting Notes

Date: Monday, May 21, 2018 3:27:04 PM

Thank you!

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 Mon, May 21, 2018 at 3:20 PM, Kelly Kirven < <u>Kelly.Kirven@kleinschmidtgroup.com</u>> wrote:

Hi Melanie,

Attached are the two documents that still had track changes (CRSA Main Document and the Monticello SMP). They have been PDF'ed and finalized. If you see that any others have track changes, please let me know and I will get those revised for you as well.

I have also attached a signature page for Appendix C.

If there is anything else you need to send over for signing, just let me know. Thanks!

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

Office: 803.462.5633

Cell: 423.747.2660

www.KleinschmidtGroup.com
From: Olds, Melanie [mailto:melanie_olds@fws.gov] Sent: Monday, May 21, 2018 2:42 PM To: Kelly Kirven <kelly.kirven@kleinschmidtgroup.com></kelly.kirven@kleinschmidtgroup.com>
Subject: Re: [EXTERNAL] CRSA Signing and Meeting Notes
Thanks Kelly,
PDF is fine and yes, I will get the other documents from the website. As for the signature that would be Mike Oetker, Acting Regional Director.
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 Mon, May 21, 2018 at 2:36 PM, Kelly Kirven < Kelly.Kirven@kleinschmidtgroup.com > wrote: Hi Melanie, I spoke with Bill and Henry, and since we don't expect to see any substantial changes to the revised track changed documents (possibly no changes at all), I will go ahead and finalize the documents with track changes and send them over to you via email (later this afternoon or first thing in the morning). Just be aware that it is possible some minor wording may be changed over the next week or two, if we get any additional comments. But like I said, we don't expect anything to be significant. In order to keep from clogging up your email, if you could download the already final, unrevised documents from the website, that would be great. I will also send over a signature page – do you know who from your organization will sign? I can go ahead and type their name in under the signature line. Also, I am assuming you want PDFs of all the documents, not Word, but just let me know if I'm wrong. Thanks! Kelly **From:** Olds, Melanie [mailto:melanie olds@fws.gov] **Sent:** Monday, May 21, 2018 1:07 PM

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

Cc: William R Argentieri < bargentieri@scana.com >; Henry Mealing < Henry.Mealing@ KleinschmidtGroup.com >; Alison Jakupca < Alison.Jakupca@KleinschmidtGroup.com >

Subject: Re: [EXTERNAL] CRSA Signing and Meeting Notes

Kelly,

The South Carolina Field Office is going to try to get this settlement agreement signed by June 26 but in order to do that we need to move a FINAL-FINAL version of the document (no track changes) and all the plans up our chain. We have our documents ready to go up **today** but see that several of the documents including the CRSA have some track changes, can we get those cleaned up. I know you were waiting for review for the team but any further delay could mean making the June 26th deadline harder. We will also need to get the signature page as well.

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, May 17, 2018 at 3:28 PM, Kelly Kirven < Kelly.Kirven@ kleinschmidtgroup.com wrote:

Good Afternoon Stakeholders,

Thank you to all of you who attended meetings, provided feedback, and otherwise helped to develop the Parr Hydroelectric Project Comprehensive Relicensing Settlement Agreement (CRSA). Please find the draft meeting notes from CRSA Meeting #6 attached to this email. If no comments are provided on the draft meeting notes, these notes will become final on May 31.

At this meeting, we revised the outstanding CRSA documents for which there were

comments (CRSA documents for which there were no additional comments are considered final and were not reviewed at this meeting). Due to the size of the edited CRSA documents, these documents have been uploaded to the <u>relicensing website</u> for viewing, with the exception of the Permitting Handbook, which is attached. Documents shown as "revised" include accepted edits from the meeting. Documents shown as "with edits" include edits made subsequent to the meeting in track changes.

- CRSA Settlement Agreement Main Document
- CRSA Appendix A Proposed License Conditions
- CRSA Appendix B Content of Off-License Agreements
- CRSA Appendix B-1
- CRSA Appendix E Proposed License Articles
- HEP Fund Proposal
- Parr West Channel AMP
- Parr Downstream Flow Fluctuation AMP
- Parr Minimum Flow AMP
- Recreation Management Plan
- Shoreline Management Plan Monticello Reservoir
- Shoreline Management Plan Parr Reservoir
- Parr Hydroelectric Project Permitting Handbook (attached above)

As relicensing stakeholders and potential CRSA signatories, we need the following from you by **May 31, 2018**:

- 1. If your organization can sign now (by June 26, 2018)
- 2. If your organization can sign later and by what date
- 3. If your organization will NOT sign

If you are planning on signing, please provide your organization description/mission statement that you would like included in the CRSA by **May 31, 2018**.

Additionally, based on the responses to this email, the following sections of the CRSA will need to be edited:

4.2.3 SIGNING PERIOD

SCE&G distributed the final CRSA package with a signature page to each and every relicensing Party on June X, 2018. Based on stakeholder feedback, SCE&G will

receive all fully executed signature pages to the CRSA by June 26, 2018. SCE&G will add all of the fully executed signature pages to the original CRSA for filing with the Commission, and will provide copies of all completed signature pages to each of the signatories.

4.2.4 EFFECTIVE DATE OF THE CRSA

This CRSA becomes binding on the signatories on the date that SCE&G files the CRSA with the Commission, or the date upon which signatures are received if they are received after the CRSA is filed with the Commission.

Please let us know if you have any questions or concerns,

Kelly

Kelly Miller Kirven

Regulatory Coordinator

Kleinschmidt

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Cell: 423.747.2660

www.KleinschmidtGroup.com

UNITED STATES DEPARTMENT OF COMMERCE



National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE Southeast Regional Office 263 13th Avenue South St. Petersburg, Florida 33701-5505 http://sero.nmfs.noaa.gov

August 29, 2017

F/SER47:FR/pw

(Sent via Electronic Mail)

William Argenteri SCE&G MA A221 220 Operation Way Cayce, South Carolina 29033

Re: Parr Hydroelectric Project (FERC No. 1894), Draft License Application Comments from

NOAA's National Marine Fisheries Service

Dear Mr. Argenteri:

NOAA's National Marine Fisheries Service (NMFS) reviewed the Draft License Application (DLA) that South Carolina Electric and Gas (SCE&G) provided by letter dated May 31, 2017. The Parr Shoals Hydroelectric Project (Project), which SCE&G operates under a license from the Federal Energy Regulatory Commission (FERC), consists of the Parr Shoals and Fairfield Pumped Storage Hydroelectric Developments located on the Broad River in Fairfield and Newberry Counties, South Carolina. The NMFS provides the following comments pursuant to its responsibilities under the Fish and Wildlife Coordination Act, Federal Power Act, and Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

General Comments

The DLA adequately describes Project operations, environmental settings, consultations, and licensing studies completed for this proceeding. SCE&G has worked cooperatively with agencies and non-agency stakeholders through numerous meetings to establish the scope of studies needed for a renewed license, conduct those studies, revise study reports to reflect agency/stakeholder comments, and complete follow-up studies deemed necessary to accomplish study goals. These meetings also provided a forum for discussion of Project-related concerns among agencies and stakeholders, and these discussions continue. The following specific comments, primarily in reference to the Environmental Report (Exhibit "E"), are intended to assist SCE&G in preparing the final license application.

Specific Comments

Section 2.1 (1.2.2). Section 18 Fishway Prescriptions.

<u>NMFS recommendation</u>: 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.



Section 2.3. Endangered Species Act. This section of the DLA only references consulting USFWS regarding listed species.

<u>NMFS Recommendation</u>: The NMFS Protected Resources Division should also be consulted regarding potential impacts to the shortnose sturgeon and Atlantic sturgeon.

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.

NMFS Recommendation: 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.

Section 4.5.1.3. Table 4-15 on page 4-50.

<u>NMFS Comment</u>: SCE&G should address several errors/omissions in the Table. For example, remove (1-27-06) after *Scartomyzon* sp. and complete the names of shorthead redhorse (omitted) *Moxostoma macrolepidotum* (omitted) and northern hog sucker (omitted). The correct scientific name for the eastern mosquitofish is *Gambusia holbrooki*.

Section 4.5.1.4 Diadromous Fish

<u>NMFS Comment</u>: Second sentence. Historically, Atlantic sturgeon also occurred in the Santee Basin but are omitted from the list. Second paragraph, second sentence. American shad also pass into the lakes through the Pinopolis Lock.

Section 4.7 Rare, Threatened, and Endangered Species.

<u>NMFS Comment</u>: *Blueback Herring, page 4-84*. This species should be referred to as an anadromous fish not diadromous.

Consultation Pursuant to the Endangered Species Act

Recovery of the endangered shortnose sturgeon and Atlantic sturgeon are important goals for the NMFS in the Santee-Cooper River Basin. The Project, in combination with other FERC-licensed projects in the Basin, potentially affects important historical spawning or maturation habitats for sturgeon and other diadromous fishes. The NMFS anticipates the ongoing interagency coordination during this relicensing proceeding will identify appropriate protection, mitigation, and enhancement measures for diadromous species, including the shortnose sturgeon and Atlantic sturgeon. To assist FERC's compliance with its responsibilities under the Endangered Species Act (ESA) and early identification of information needs and preparations for ESA consultation, the NMFS recommends FERC and SCE&G coordinate with David Bernhart

of the NMFS Protected Resources Division at the letterhead address or by electronic mail at David.Bernhart@noaa.gov.

Thank you for the opportunity to provide these comments. Please direct related questions or comments to the attention of Mr. Fritz Rohde at our Beaufort Field Office, 101 Pivers Island Road, Beaufort, North Carolina 28516-9722, or at (252) 838-0828.

Sincerely,

Pace Willer

/ for

Virginia M. Fay Assistant Regional Administrator Habitat Conservation Division

cc: FERC e-filing

SCE&G, BARGENTIERI@scana.com

SCDNR, christied@dnr.sc.gov, marshallb@dnr.sc.gov

USFWS, wilson_laney@fws.gov, thomas_mccoy@fws.gov, melanie_olds@fws.gov

F/SER3, David.Bernhart@noaa.gov F/SER47, Fritz.Rohde@noaa.gov

Forest Service Standard Section 4(e) Conditions

29 August 2017

INTRODUCTION

The USDA Forest Service (Forest Service) submits the following Preliminary Section 4(e) Conditions for the Parr Hydroelectric Project, FERC No. 1894-SC, in accordance with 18 CFR 4.34(b)(1)(i). Section 4(e) of the Federal Power Act (FPA), which states the Commission may issue a license for a project within a reservation only if it finds that the License will not interfere or be inconsistent with the purpose for which such reservation was created or acquired. This is an independent threshold determination made by the Commission, with the purpose of the reservation defined by the authorizing legislation or proclamation (see Rainsong v. FERC, 106 F.3d 269 (9th Cir. 1977)). Forest Service, for its protection and utilization determination under Section 4(e) of the FPA, may rely on broader purposes than those contained in the original authorizing statutes and proclamations in prescribing conditions (see Southern California Edison v. FERC, 116F.3d 507 (D.C. Cir. 1997)).

The following terms and conditions are based on those resource and management requirements enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved by Land and Resource Management Plans prepared in accordance with the National Forest Management Act. Specifically, the 4(e) conditions in this document are based on the Land and Resource Management Plan (as amended) for the Sumter National Forest, as approved by the Regional Forester of the Southern Region.

Pursuant to Section 4(e) of the Federal Power Act, the Secretary of Agriculture, acting by and through FS, considers the following conditions necessary for the adequate protection and utilization of the land and resources of the Sumter National Forest. License articles contained in the Federal Energy Regulatory Commission's (Commission's) Standard Form L-1 (revised October 1975) issued by Order No. 540, dated October 31, 1975, cover general requirements. Part I of this document includes standard administrative conditions deemed necessary for the administration of National Forest System lands. Part II of this document includes standard resource conditions deemed necessary for protection and utilization of National Forest System lands. Part III of this document includes specific resource requirements for protection and utilization of National Forest System lands related to the Parr Hydroelectric Project.

PART I: STANDARD ADMINISTRATIVE CONDITIONS

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.

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 area 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 Forest Service in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

<u>Condition No. 3 - Requirement to Obtain a Forest Service Special Use</u> <u>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

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.

Requirement to Obtain a Forest Service Special Use Authorization Based on Issuance of Previous Special Use Authorization(s)

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.

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

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.

<u>Condition No. 4 - Requirement to Obtain a Short-Term Forest Service Special Use Authorization</u>

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:

- Safety.
- Use and storage of equipment.
- Properly licensed construction personnel.
- Inspections.

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.

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.

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.

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.

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.

Condition No. 7 - Existing Claims

License 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.

Condition No. 8 – Indemnification

Licensee shall indemnify, defend, and hold the United States harmless for:

- 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.

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.

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.

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.

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.

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.

In addition, all National Forest System roads used as Project Access roads (PAR) and Right-of-Way access roads (ROW) shall have:

- 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.

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.

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).

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.

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.

For DRY spills:

- 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.

For LIQUID spills:

- 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.

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.

<u>Condition No. 12 - Pesticide-Use Restrictions on National Forest System</u> <u>Lands</u>

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:

- 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.

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.

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.

<u>Condition No. 13 – Consultation</u>

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.

Licensee shall make the following information available to Forest Service and other meeting participants at least 30 days prior to the meeting:

- 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.

Consultation shall include, but not be limited to:

- 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.

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.

Condition No. 14 - Consultation Group

The Licensee shall, within 3 months of license issuance, establish a Consultation Group as follows.

Purpose

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:

- 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.

Licensee shall also provide notification of license compliance deviations to the current members of the Consultation Group.

Decision Making

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.

Participation

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 participant is responsible for ensuring they are represented.

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.

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,

Licensee shall ensure that any such official survey records affected are amended as provided by law.

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.

PART II: STANDARD RESOURCE CONDITIONS

Condition No. 18 – Invasive Species Management

Aquatic Invasive Species Management and Monitoring Plan

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.

Public Education Program

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:

- 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.

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.

Best Management Practices

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.

Development of BMPs for Project activities shall include but not be limited to the following:

- 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.

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.

Monitoring and Reporting

The AIS Plan shall include a specific monitoring program that addresses all reservoirs that have a boat launch, or identified as having boating access, and that follows State and/or Federal laws, regulations, and policies. Mapping and monitoring results shall be provided to Forest Service, US Fish and Wildlife Service and SC Department of Natural Resources.

Plan Revisions

Licensee, in consultation with Forest Service, US Fish and Wildlife Service and SC Department of Natural Resources shall review, update, and/or revise the AIS Plan, as determined necessary by Forest Service in consultation with US Fish and Wildlife Service and SC Department of Natural Resources, when substantial changes in the existing conditions occur. Additional monitoring may be part of any plan revisions. Changes or revisions to the Plan would be expected if AIS conditions change as a result of unforeseen effects, either from new or existing Project-related activities, the potential for new AIS to occur, the discovery of a new AIS within the Project, or from natural events or if other regulatory or legal requirements are established. Licensee shall include all relevant documentation of coordination/consultation with the updated Plan filed with the Commission.

Vegetation and Invasive Weed Management Plan

Within 1year of license issuance, Licensee shall complete, in consultation with Forest Service and approved by Forest Service, a Vegetation and Non-Native Invasive Plant Management (NNIP) Management Plan (Plan) for all National Forest System lands potentially affected by the Project. Targeted NNIP will be those species defined by the Regional Forester Southern Region, Southern Research Station and South Carolina Exotic Plant Pest Council or identified as Forest Service species of concern.

The Plan will address special status species, terrestrial NNIP species, and revegetation within the Project boundary and adjacent to Project features directly affecting National Forest System lands including Project and project related roads, facilities, and distribution and transmission lines.

Minimum components of the Plan shall include, but may not be limited to:

- Special status species management: protection, monitoring, frequency of surveys, internal education, reporting, and adaptive management.
- Sensitive area protection, including guidelines for conducting activities that reduce the effects to sensitive resources.
- Non-native invasive plant (NNIP) species management: frequency of surveys, guidelines for
 prevention, treatment, internal education, monitoring, reporting, guidelines for conducting
 weed risk assessment for new project feature development, including an adaptive
 management element to implement methods for prevention of aquatic invasive weeds, as
 necessary.
- Methods that ensure early detection and treatment of NNIP.
- Guidelines for treatment of NNIP populations on Federal lands within the FERC Project boundary. In areas where NNIP populations that are determined to be project-related extend outside the FERC Project boundary, treatments would extend up to ¼ mile beyond the FERC Project boundary. If noxious weed populations extend more than ¼ mile from the FERC Project Boundary, and are determined to be Project-related, Licensee will consult with Forest Service or Bureau of Land Management (BLM) to determine if the populations should be treated and, if so, the appropriate treatment methods. The same treatments are recommended on Licensee lands.
- Guidelines for conducting Licensee's inspections of equipment and vehicle for NNIPs.
- List of target NNIPs agreed to and approved by BLM and Forest Service.
- Revegetation implementation and monitoring.
- Treatment protocols for vegetation management, hazardous fuels reduction, and hazard tree management for protection of Project facilities and Project-affected resources within the Project affected area.
- Pesticide/herbicide use approval and restrictions.
- Annual reporting guidelines for the Annual Meeting.

Licensee, in consultation with Forest Service, will review, update, and/or revise the Plan if substantial changes in vegetation management occur. Changes may be implemented if monitoring feedback indicates that resource objectives are not being met.

Any updates to the Plan would be prepared in coordination and consultation with Forest Service. The Licensee shall allow the Forest Service at least 60 days, unless waived by the Forest Service, to comment and make recommendations before Licensee files the updated plan with the Commission. Any changes to the Plan shall be approved by Forest Service. Licensee would include all relevant documentation of coordination/consultation with the updated Plan filed with the Commission.

Condition No. 19 - Special Status Species

Biological Evaluations

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.

The BE shall:

- 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.

Annual Review of Special-Status Species Lists and Assessment of New Species on Federal Land

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. 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.

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.

If new occurrences of state or federally listed or proposed threatened or endangered species are detected prior to or during ongoing construction, operation, or maintenance of the Project or during Project operations, Licensee shall immediately notify the Commission, Forest Service and the relevant Service Agency for consultation or conference in accordance with the Endangered Species Act. If state listed or fully protected species are affected, Forest Service and US Fish and Wildlife Service shall be notified.

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.

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:

Erosion Control Guidelines for Existing Project-Affected Areas

- 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.

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:

- 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.

Erosion Control Guidelines for New Construction or Non-Routine Maintenance

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.

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.

Minimum components include, but may not be limited to:

- 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.

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, License shall consult with Forest Service to minimize adverse effects to sensitive resources. This measure applies to employee training that is not otherwise covered by a specific plan.

<u>Condition No. 23 – Non Project Areas (Keitts Bridge Landing Enoree River Recreation Area)</u>

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. 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.

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.

The BE shall:

- 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.

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.

The Archaeological Evaluation shall:

- 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.

South Carolina Department of

Natural Resources



1000 Assembly Street PO Box 167 Columbia, SC 29202 803-734-9096 marshallb@dnr.sc.gov Alvin A. Taylor
Director

Lorianne Riggin
Director, Office of
Environmental Programs

August 28, 2017

Mr. William Argentieri South Carolina Electric & Gas Company MC A221 220 Operations Way Cayce, SC 29033-3701

REFERENCE: Comments on the Draft License Application for Parr Shoals Hydroelectric

Project (P-1894)

Dear Mr. Argentieri:

The South Carolina Department of Natural Resources (SCDNR) has reviewed the Draft License Application (DLA) prepared by South Carolina Electric and Gas Company (SCE&G) for the proposed relicensing of the Parr Shoals Hydroelectric Project, FERC Project No. 1894 (hereafter referred to as "Parr Shoals Project" or "Project"). SCDNR received notification on May 31, 2017, that SCE&G, the holder of the current license for Project, had electronically filed with the Federal Energy Regulatory Commission (FERC) a staff review copy of the DLA. In accordance with 18 C.F.R. § 16.8 (c)(5), formal written comments specifically in reference to the DLA are due within 90 days of the date of this filing (August 29, 2017).

Project Description

As described in the DLA, the Parr Shoals Project is located in Newberry and Fairfield counties, South Carolina, on the Broad River, approximately 26 river miles upstream from the City of Columbia. The Project includes the existing Parr Shoals Development with its 4,400 acre reservoir on the Broad River, and the adjacent Fairfield Pumped Storage Development with the 6,800 acre Monticello Reservoir on Frees Creek, a tributary to the Broad River.

The Parr Shoals Development, which operates in a modified run-of-river mode to provide base load electricity, consists of a powerhouse approximately 60 feet wide by 300 feet long and containing six generators, a 2,715 foot long concrete dam with a trash raking system mounted on the intake deck, ten bottom-hinged Bascule gates mounted on the crest of the dam, a 4,400 acre reservoir, and transmission and appurtenant facilities. The normal maximum water level of Parr Reservoir is at El. 265.3 feet (NAVD88). The Parr Shoals Development has an installed capacity

of 14.88 MW and a design capacity of 6,000 cfs, but generates at flows limited to an estimated 4,800 cfs because the power output at full gate opening currently exceeds the generator capacity.

The Fairfield Pumped Storage Development provides peaking and reserve power and utilizes Parr Reservoir as the lower reservoir and Monticello as the upper reservoir. Project works of the Fairfield Development at Monticello Reservoir include four earthen dams, an intake channel, a gated intake structure, four surface penstocks (each 26 feet in diameter and approximately 800 feet long) bifurcating into eight concrete-encased penstocks (each approximately 18.5 feet in diameter), a semi-outdoor generating station, approximately 520 feet long by 150 feet wide, housing eight vertical Francis reversible pump-turbine units and transmission and appurtenant facilities. The normal maximum water level in Monticello Reservoir is El. 424.3 feet (NAVD88). The Fairfield Pumped Storage Development has an installed capacity of 511.2 MW and generates with flows from Monticello Reservoir up to a maximum hydraulic capacity of approximately 50,400 cfs. During pumping operations, moving water from Parr to Monticello, the maximum capacity is 41,800 cfs. Daily operations result in the active transfer of up to 29,000 acre feet of water from Monticello Reservoir to Parr Reservoir during generation operations and from Parr to Monticello during pumped storage operations. The transfer of the full active storage, 29,000 acre feet, results in a Monticello Reservoir maximum fluctuation of 4.5 feet, and a corresponding Parr Reservoir maximum fluctuation of 10 feet.

The existing FERC license for the Project expires on June 30, 2020, and SCE&G intends to file for a new license with FERC on or before May 31, 2018.

Interests and Objectives of SCDNR

SCDNR is the state agency charged by state law with the management, protection, and enhancement of wildlife, fisheries, and marine resources in South Carolina. SCDNR is responsible for formulating comprehensive policies for water resources through a State Water Plan to address issues affecting water supply, water quality, navigation, hydroelectric power, outdoor recreation, fish and wildlife needs, and other water resource interests. SCDNR is also charged with the statewide responsibilities for regulating watercraft operation and associated recreation on state waters, conducting geological surveys and mapping, promoting soil and water conservation, management of invasive aquatic plants, flood mitigation, drought response planning and coordination, and the state scenic rivers program. SCDNR's mission is to serve as the principal advocate for and steward of South Carolina's natural resources. (SCDNR authorities and responsibilities are described in Titles 48, 49 and 50, South Carolina Code of Laws (1976), as amended.)

SCDNR has actively participated in SCE&G's Parr Shoals Relicensing Project with eight staff members serving on one or more of the three Resource Conservation Groups (RCGs) and associated Technical Working Committees (TWCs) formed by SCE&G in the summer of 2013. Consultations within these groups over the past four years have allowed SCDNR to provide input to SCE&G in their development of the DLA. SCDNR interests and objectives related to the Project include the protection, enhancement and restoration of natural resources and their associated values. Specific interests include the following:

- Ensure the FERC license recognizes that Parr Reservoir, Monticello Reservoir, and the Broad River are important public trust resources, and that the Project is managed to achieve public benefits.
- Water Quality: Maintain and/or enhance water quality conditions to meet state standards and current use classifications that protect and provide for fish and wildlife habitat, contact recreation, and public water supply.
- Water Quantity: Ensure the implementation of appropriate water management and downstream flows to protect water quality, fish and wildlife resources, and navigation; and meet present and future water supply needs. Improve information, plans, and procedures for making equitable water management decisions. Balance water resource user needs to protect natural resources within the Project and downstream river reaches. Conserve reservoir levels and protect adequate downstream flows during periods of drought or low inflow.
- RTE Species: Protect and enhance rare, threatened, and endangered (RTE) species; and species of conservation concern.
- Aquatic Resources: Protect and enhance fishery resources and aquatic habitat. Minimize entrainment mortality for fish. Stabilize lake-levels during spawning seasons to promote reproduction of fish. Protect and enhance shoreline and littoral habitats for aquatic species. Implement long-term monitoring strategies to ensure protection of key aquatic species and to appraise restoration and enhancement efforts. Enhance habitat and flow conditions in the tailrace, bypass areas, and downstream river reaches. Reduce negative effects to stream fish populations caused by habitat fragmentation resulting from the dams and lakes; and monitor viability of key conservation species potentially impacted by fragmentation. Minimize spread of exotic, invasive species.
- Terrestrial Resources: Protect and enhance wildlife and botanical resources and related habitat. Protect and enhance environmentally sensitive areas and natural communities of concern. Protect and enhance riparian vegetation and habitat areas on shorelines. Minimize habitat losses from shoreline erosion and development. Increase the acreage of protected natural areas. Minimize spread of exotic, invasive species.
- Recreation: Protect and enhance public opportunities for fishing, hunting, wildlife viewing, boating, and other outdoor recreation. Expand and improve existing areas and facilities to meet user needs. Develop and locate new areas/facilities based on user needs and carrying capacity. Increase land areas designated for outdoor recreation and wildlife conservation. Design and manage access facilities to minimize crowding and safety problems. Design facilities to be ADA accessible. Improve safety and law enforcement among recreational users. Protect aesthetic resources at the Project.
- Cultural Resources: Protect any significant archaeological and historic sites and resources from human and natural impacts.

Comments

The DLA is well organized, updates information provided in the PAD, and appears to accurately and consistently present information provided during the TWC meetings. The document addresses most of our information needs and accurately describes the status of proposed

protection, mitigation and enhancement (PM&E) measures. Our comments have been prepared to 1) question, correct or clarify factual statements; 2) evaluate how well any proposed protection, mitigation and enhancement measures (PM&E) address SCDNR management objectives, and 3) to propose additional PM&E measures that would be consistent with SCDNR management objectives.

Exhibits A and B, Project Description and Project Operations – These sections appear to adequately describe the project and operations. The two project developments use different operational modes (modified run-of-river and pumped storage), and while the run-of-river operation has significant environmental impacts, the impacts associated with habitat are relatively minor compared to the habitat impacts associated with the pumped-storage operations. We appreciate the clarifications and explanations SCE&G has provided in the DLA and they give us a better understanding of the hydraulic capacity of the Parr Project (described a number of places in Exhibit B, such as section 2.6) and the daily transfer of active storage, which we have learned has not historically been a daily transfer of the entire 29,000 acre feet. These clarifications have been helpful to us in understanding project effects on downstream flows and identifying possible ways to reduce those effects.

Exhibit B

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.

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.

Exhibit E

SCDNR suggests SCE&G consider developing some standardized language to describe reservoir fluctuations. They are discussed in Exhibits A, B, and E, and 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 operation"; 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.

Section 3.1.1.5 – We noticed that transmission to "Parr Steam Station 115 kV 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?

Section 3.1.1.6, page 3-5 – Typo in the last paragraph of section: Change <u>pas</u> to pass.

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.

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.

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.

Section 3.2.1, page 3-13 – Typo: insert <u>are</u> to the sentence, "...when 50% of the specified total restoration numbers for adult anadromous American shad or blueback herring <u>are</u> being passed at Columbia Dam."

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.

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 plan has been changed subsequent to the DLA filing, and the FLA will need to present the current version of the plan.

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.

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.

Section 4.5.1.4, page 4-53 -- A statement in the second paragraph says, "American shad have been documented downstream of 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 Moultrie through the Pinopolis Navigation Lock.

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).

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.

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).

Section 4.10.1.4, page 4-123 – At the bottom of 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.

Section 4.10.1.4, page 4-123 and Table 4-31 -- The total shoreline mileage for Parr reservoir in Table 4-31 does not match the distance reported in the text on page 4-123.

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 sub-impoundment and/or the islands, and should be clarified in the table.

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 Ledge1 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)".

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.

Section 6.3, page 6-6, Table 6.1 -- The South Carolina Water Plan is listed as a comprehensive plan that addresses 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.

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.

Mr. William Argentieri Comments on the Draft License Application for Parr Shoals Hydroelectric Project (P-1894) August 28, 2017

SCDNR appreciates the opportunity to review and provide comments on the Draft License Application for Parr Shoals Hydroelectric Project. If you have questions or need additional information please do not hesitate to contact me by phone at 803-734-9096 or email at marshallb@dnr.sc.gov.

Sincerely,

Bill Marshall

Coordinator, FERC Hydro Projects Review

cc: Ray Ammarell, SCE&G

Bill Marshell

Henry Mealing, Kleinschmidt Associates

Melanie Olds, USFWS Pace Wilbur, NMFS

Rusty Wenerick, SCDHEC Lorianne Riggin, SCDNR Dick Christie, SCDNR



CHEROKEE NATION® P.O. Box 948 * Tablequad, OK *4465:0948 * 918-453-5900 * cherokez.org

Office of the Chief

Bill John Baker Principal Chief OP Ch JSS&&DY OEOGA

S. Joe Crittenden Deputy Principal Chief & KA JEY&Y WPA DLOA OFSGA

August 25, 2017

William Argentieri SCE&G MC A221 220 Operation Way Cayce, SC 29033

Re: Parr Hydroelectric Project Draft License Application (P-1984-207)

Mr. William Argentieri:

The Cherokee Nation (CN) is in receipt of your correspondence about the **Parr Hydroelectric Project Draft License Application** (P-1894-207) and appreciates the opportunity to provide comment upon this project.

Please allow this letter as notice that the CN would like to act as a consulting party to this project. The CN maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project and cross referenced the project's legal description against our information, and found instances where this project falls within our ancestral homelands. However, the CN does not foresee this project imparting impacts to Cherokee cultural resources and has no objections to the License Application as long as the following stipulations are observed:

- 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 archeological
 or related human remains, are discovered during the course of this project;
- The CN requests that SCE&G include the CN as a consulting party to the *Historic Properties Management Plan* (HPMP) and *Programmatic Agreement* related to this project;
- In regard to the HPMP, if educational cultural material related to archeological sites are released to the public, the CN requests an opportunity to consult regarding these materials prior to their release; and

Parr Hydroelectric Project August 25, 2017 Page 2 of 2

> 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 Comprehensive Relicensing Settlement Agreement.

If you require additional information or have any questions, please contact me at your convenience.

Thank you for your time and attention to this matter.

Wado.

Elizabeth Toombs, Special Projects Officer

Cherokee Nation Tribal Historic Preservation Office

elizabeth-toombs@cherokee.org

918.453.5389



United States Department of the Interior

FISH AND WILDLIFE SERVICE

August 18, 2017

176 Croghan Spur Road, Suite 200 Charleston, South Carolina 29407





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

Subject: COMMENTS on Draft License Application for the Parr Hydroelectric Project,

Newberry and Fairfield Counties, South Carolina.

FERC Project No. 1894-207 FWS Log No. 2012-CPA-0163

Dear Mr. Argentieri:

The U.S. Fish and Wildlife Service (Service) received your Draft License Application (DLA) for the Parr Hydroelectric Project (Project) dated May 31, 2017. We have reviewed the information provided in your letter and submit the following comments in accordance with the provisions of the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e); the National Environmental Policy Act (42 U.S.C. §4321 et seq.); the Federal Power Act (FPA) (16 U.S.C. 791 et seq.); the Migratory Bird treaty Act (16 U.S.C. 1536, 1538); the Electric Consumers Protection Act of 1986 (100 Stat. 1243); the Clean Water Act (33 U.S.C. 1251 et seq.); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

Consultation Record

The Parr Hydroelectric Project (Project) is currently licensed to South Carolina Electric & Gas Company (SCE&G). SCE&G filed their "Notice of Intent (NOI) to File License Application, Filing of Pre-Application Document (PAD), and Approving Use of the Traditional Licensing Process (TLP)" for the Project with the Federal Energy Regulatory Commission (Commission) on February 20, 2015. The Service filed our comments on the PAD with the Commission on June 15, 2015.

SCE&G began early consultation (pre-PAD) with natural resource agencies and stayed committed to working with the natural resource agencies throughout the relicensing process. The Service has provided technical assistance during the development of study plans, made numerous comments and recommendations on the outcome of the studies, and provided several rounds of comments on the development of the Adaptive Management Plans (AMP) and monitoring plans. SCE&G has made a substantial effort during the relicensing process to

communicate and take the Service's concerns into consideration. The DLA was provided to the agencies on May 31, 2017. SCE&G plans to file a Final License Application with the Commission on or before May 30, 2018. The license for the Project expires June 30, 2020.

Project Description

The Project consists of two developments located on the Broad River in Newberry and Fairfield Counties, South Carolina. The 14.88-megawatt (MW) Parr Shoals development consists of the 4,400-acre Parr Reservoir on the Broad River formed by the Parr Shoals Dam and serves as the lower reservoir for the pumped storage development. The 511.2-MW Fairfield Pumped Storage development consists of the 6,800-acre Lake Monticello (formerly Frees Creek, a small tributary of the Broad River) now impounded) formed by four earthen dams and serves as the upper reservoir for the pumped storage development. Lake Monticello also provides cooling water for the V.C. Summer Nuclear Station. The Parr Shoals dam is approximately 24 river miles upstream from the Columbia Diversion Dam that is equipped with a vertical slot fishway facility.

Service Comments

The Service in general finds that the DLP to be a comprehensive and well composed document that has taken many of our, as well as other natural resources agencies, issues, and concerns into account. We continue to believe that SCE&G has set a high standard for cooperation and communication among stakeholders to address these potential issues.

The Service has reviewed and provided numerous comments on the study reports in Exhibit E-Appendix B, as well as the AMP and monitoring plans attached in Exhibit E-Appendix D. The versions presented in the DLA are not the most recent and comments on the DLA version would not necessarily be relevant. The Service looks forward to working with SCE&G to continue to revise the AMP and monitoring plans that will be presented in the Final License Application.

Exhibit E

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.

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.

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.

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 that 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 effected on July 17, 2017.

The Service appreciates the opportunity to review and comment on the DLA for this Project. Please contact Ms. Melanie Olds of our staff at 843-727-4707, Ext. 205, if you have any questions and reference FWS Log Number 2012-CPA-0163.

Sincerely,

homas D. McCoy

Field Supervisor

TDM/MJO

ec: Dr. Wilson Laney, USFWS, Raleigh, NC

Mr. Bill Marshall, SCDNR, Columbia, SC

Mr. Dick Christie, SCDNR, Columbia, SC

Mr. Fritz Rohde, NOAA-NMFS, Beaufort, NC

FERC e-filing



July 10, 2017

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N. E. Washington, D. C. 20426

Subject:

South Carolina Electric & Gas Company

Parr Hydroelectric Project FERC Project No. 1894

Request to Remove Property from Project Boundary

Dear Secretary Bose:

South Carolina Electric & Gas Company ("SCE&G"), Licensee of the Project, hereby submits electronically our request to remove 8.12 acres from the Parr Hydroelectric Project Boundary, FERC Project P-1894, along with supporting documentation and record of consultation with the appropriate agencies.

The referenced property is located on the western side of Monticello Reservoir, and is currently a small portion of a larger piece of Project property classified as Future Recreation in the current Shoreline Management Plan for Monticello Reservoir. A location map of the property is provided as Exhibit A, and a surveyed plat is included as Exhibit B. SCE&G has also included, for review and approval by the Commission, sheets 1, 7, and 18 of License Exhibit K, with revisions made to the Project Boundary reflecting the removal of the 8.12 acre parcel from the project boundary.

The referenced 8.12 acre parcel has been leased by the Licensee to Fairfield County for the purpose of constructing a Community Center serving the communities on the western side of Monticello Reservoir. The Community Center, once constructed by Fairfield County, will not provide Project related recreational or public access functions, and therefore will no longer serve a Project purpose.

Consultation with the appropriate federal and State agencies (as referenced in the current license articles for recreational lands), National Park Service (NPS), South Carolina Department of Natural Resources (SCDNR) and South Carolina Parks Recreation and Tourism (SCPRT), was initiated as noted on the attached emails (provided in Exhibit C) dated September 6, 2016, September 7, 2016 and September 21, 2016 respectively. Responses were received from NPS dated September 7, 2016, SCDNR dated September 20, 2016 and SCPRT dated September 27, 2016.

Kimberly D. Bose Parr Hydroelectric Project P-1894 Request to Remove Property from Project Boundary Page 2

SCE&G is therefore requesting that the Commission amend the license for the Project to remove this 8.12 acre parcel from within the Project Boundary and approve the referenced Exhibit K drawings.

If you have any questions or need further information, please contact me at (803) 217-9162.

Yours very truly,

William Argentieri, Manager of Civil Engineering

Fossil Hydro Technical Services

RRA/ra

c: H. E. Delk/W. R. Argentieri/FF File

G. D. Frick

W. K. Chastain, Jr.

J. H. Hamilton, Jr.

Exhibit A Property Location Map

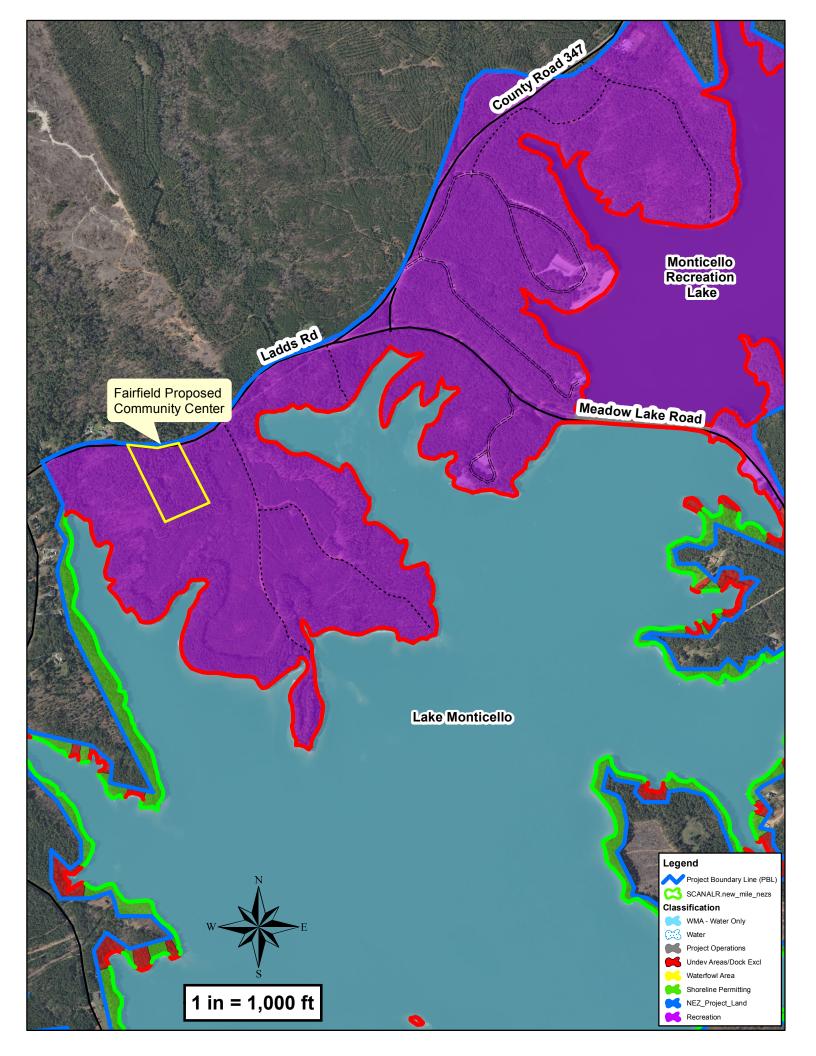
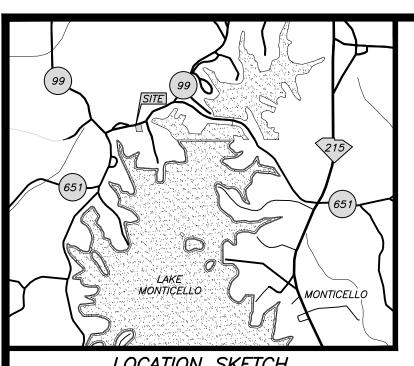


Exhibit B

Property Plat

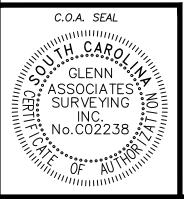


LOCATION SKETCH SCALE: 1 INCH = 1 MILE

<u>PORTION OF PARCEL "A"</u> 8.12 ACRES			
PT-PT	BEARING	DISTANCE	
406-701	S 84°06'38" E	103.92'	
701–702	S 87°20'44" E	197.80'	
702-403	N 81°06'46" E	198.37'	
403–404	S 26°19′16" E	650.59'	
404-405	S 65°53'58" W	508.03'	
405–406	N 22°25′04″ W	843.51	

<u>PORTION OF PARCEL "B"</u> 0.39 ACRE			
PT-PT	BEARING	DISTANCE	
406-714	N 22°25'04" W	39.68'	
714-6105	S 84°01'39" E	123.18'	
6105-6106	S 87°14'44" E	193.54	
6106-715	N 81°12'46" E	182.74'	
715-403	S 26°19'16" E	35.32'	
403-702	S 81°06'46" W	198.37'	
702-701	N 87°20'44" W	197.80'	
701–406	N 84°06′38″ W	103.92'	

<u>AREA SUMMARY</u>		
PARCEL "A"	8.12 ACRES	
PARCEL "B"	0.39 ACRE	
TOTAL CONVEYANCE	8.51 ACRES	



SURVEYOR'S SEAL



RAWING BY TOMMY MADDALENA SURVEYOR'S SEAL NO. 28582

DESCRIPTION

CHECKEL

FURMERLY 3 ZU-34/ 20.369
SCDOT REFERENCE: EACH SIDE)
66' R/W (33' FACH SIDE)
ROAD 528' TO INTERSECTION OF PEARSON ROAD -(714) & ROAD -(6105) © ROAD PORTION OF PARCEL PROJECT NO. 1894 PARCEL "A" **SUBJECT REFERENCES** PORTION OF TMS# 138-01-00-003-000 DEED: BOOK ES PAGE 1745 REFERENCE DRAWING NO. B-15, 320 PREPARED FOR SOUTH CAROLINA ELECTRIC AND GAS COMPANY ENTITLED "T.A. LADD TRACT NO. 2" DATED OCTOBER 23,1975, PARCELS "A" AND "B" SOUTH CAROLINA ELECTRIC AND GAS K: SHEET 7 DATED 9/17/2012 REVISION PER FERC ORDER 137 FERC¶ 62.033 REMOVED FROM PBL BOUNDARY PARCEL "A" 8.12 ACRES 1. ACCORDING TO F.I.R.M. COMMUNITY PANEL # 450075 0175 C, DATED MAY 3, 2011 THE PROPERTY SHOWN HEREON IS NOT IN A SPECIAL FLOOD HAZARD ZONE. 2. NO PRINT OR ELECTRONIC COPY OF THIS PLAT IS CERTIFIED BY GLENN ASSOCIATES SURVEYING, INC. UNLESS IT BEARS THE ORIGINAL SIGNATURE AND IMPRESSION SEAL OF THE RESPONSIBLE SURVEYOR SHOWN HEREON. REVISION SCHEDULE

GEODETIC AND SC STATE GRID POINT DATA HORIZONTAL DATUM: NAD83 (2011)

GRID TIE POINT

(411) CONCRETE MONUMENT FOUND (#3181)

> POINT NUMBER: 406 SC GRID COORDINATES NORTH: 925,741.02

VERTICAL DATUM: NAVD 88

STATE GRI BY G FROM NAD83

EAST: 1,900,707.54 GEODETIC COORDINATES:

LATITUDE: N 34°22'38.18908" LONGITUDE: W 081°19'44.74330"

> POINT NUMBER: 411 SC GRID COORDINATES NORTH: 925,809.79 EAST: 1,901,374.25

GEODETIC COORDINATES: LATITUDE: N 34°22'38.89037"

LONGITUDE: W 081°19'36.79083" POINT NUMBER: 403 SC GRID COORDINATES

NORTH: 925,751.84 EAST: 1,901,204.41

GEODETIC COORDINATES: LATITUDE: N 34°22'38.31174" LONGITUDE: W 081°19'38.81511"

COORDINATE DERIVATION: GPS COMBINED REDUCTION FACTOR: 0.999850107 MEASUREMENTS SHOWN ARE FIELD SURVEY DISTANCES. NOTE: THIS TIE DATA TO BE USED FOR LOCATION ONLY.

BOUNDARY SURVEY FOR SOUTH CAROLINA ELECTRIC & GAS COMPANY

PORTION OF HYDRO PBL PROJECT NO.1894 TRACT 123 TO BE REMOVED FROM PARR PROJECT BOUNDARY

FAIRFIELD COUNTY, SOUTH CAROLINA MAY 2, 2017

SCALE: 1 INCH = 60 FEET *300'* 120'

SURVEYED BY GLENN ASSOCIATES SURVEYING, INC. P.O. BOX 12 JENKINSVILLE, S.C. 29065 telephone (803) 345-5297

BRIAN B. BONDS; S.C.P.L.S. # 28582

I HEREBY STATE THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN.

360'

Exhibit C Record of Consultation with Required Agencies

AMMARELL, RAYMOND R

From:

Stakely, Tracy <tracy_stakely@nps.gov>

Sent:

Wednesday, September 07, 2016 10:54 AM

To:

AMMARELL, RAYMOND R; Frank Henning; Liz Struhar

Subject:

Fwd: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

Attachments:

K-1 Map of Project Area with CC Location.pdf; Fairfield_Community_Ctr.pdf; Community

Center Site Plan.pdf

***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.

Ray - The NPS has no concerns with SCE&G removing this property from the PBL to meet the needs of the county community center. Thanks for keeping us in the loop.

J. Tracy Stakely Superintendent Congaree National Park 803-647-3971



----- Forwarded message -----

From: Henning, Frank < frank henning@nps.gov>

Date: Tue, Sep 6, 2016 at 4:22 PM

Subject: Fwd: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

To: Tracy Stakely < tracy stakely@nps.gov>

I have attended several of the FERC re-licencing meetings for the Parr-Fairfield Dam. Fairfield County would like to amend the current agreement for a recreation facility. SCE&G is required to ask for our comments in order to amend the project. Please let them know what you think. This change is related to a public project, so it should provide public benefit and it does not seem like the impact will be significant.

Frank

----- Forwarded message -----

From: AMMARELL, RAYMOND R < RAMMARELL@scana.com>

Date: Tue, Sep 6, 2016 at 4:13 PM

Subject: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

To: "Frank Henning@nps.gov" < Frank Henning@nps.gov>

Cc: "ARGENTIERI, WILLIAM R" <BARGENTIERI@scana.com>

Frank,

Thanks for speaking with me this afternoon. As I indicated, Fairfield County has leased from SCE&G an 8.12 acre parcel inside the project 1894 Project Boundary Line (PBL) near Monticello Reservoir. The leased property is part of a larger SCE&G owned tract currently designated as recreation property within the Parr Hydroelectric Project. The County has developed plans to construct a community center on the leased property, and in order that they may proceed with their plans without undue delay, SCE&G proposes to remove the 8.12 acres from FERC Project 1894 as an amendment to the current license. Only the 8.12 acres leased by the County are proposed to be removed from project lands, and the remainder of the designated recreation property would remain as project lands and be managed as such. The license requires consultation with the USDOI – Bureau of Outdoor Recreation, and we understand the NPS is the successor agency to that one. SCE&G will also consult with SCDNR and SCPRT as stipulated in the license.

Attached are the following:

- An overall map of the FERC Project 1894 area showing the location of the proposed Community Center:
- An aerial photomap showing the location of the 8.12 acres within the larger recreation designated property;
- A site plan showing the proposed Community Center development of the 8.12 acre parcel.

You indicated that you would forward this information to the NPS Superintendent and let me know if your agency has any objection to SCE&G removing this property from within the PBL. If you or the Superintendent believe a meeting or conference call is needed to discuss this request, please let me know and I will arrange for it. If you have any questions or require additional information, please do not hesitate to contact me.

Thanks,

Ray Ammarell

SCE&G - Fossil Hydro Technical Services 220 Operation Way

Mail Code A-221

Cayce, SC 29033-3701

803-217-7322 Phone 803-206-3710 Cell 803-933-7847 Fax rammarell@scana.com

AMMARELL, RAYMOND R

From:

Bill Marshall <MarshallB@dnr.sc.gov>

Sent:

Tuesday, September 20, 2016 12:53 PM

To:

AMMARELL, RAYMOND R

Cc:

ARGENTIERI, WILLIAM R; Dick Christie

Subject:

FW: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

***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.

Hello Ray,

DNR staff have considered SCE&G's proposal to remove 8.12 acres from project lands at Parr Hydro Project, which is described in your email, below. We understand the 8.12 acres is being leased by Fairfield County which plans to construct a community center on the leased property. In order to allow Fairfield County to proceed with their plans without undue delay, SCE&G proposes to remove the 8.12 acres from project lands as an amendment to the current license.

DNR does not object to this proposal to be implemented under the current license, as we understand doing so may be helpful to Fairfield County in moving forward with the community center. For SCE&G consideration, we offer the following related comments:

As mentioned in previous conversations, we do think the proposed location for the community center presents opportunities for this facility to connect with recreational use at the Parr Project because of its close proximity to Project recreation lands and the Monticello Reservoir. Also, given the proposed location, DNR will have interests in considering future recreation facility additions at Parr Project to provide connections between the community center and adjacent Project recreation lands and shoreline fishing opportunities. Additional facilities of interest would include a fishing pier at Monticello Reservoir, located near to the community center, and walking trails to allow access from the community center property to Project shoreline areas and the fishing pier. Also, if the community center is to be gated with limited access hours, and/or it needs to remain independent of the Project, then we may want to consider co-locating a Project parking area next to the community center property to allow access to trails, shoreline areas, and a pier at the Project. These are just ideas and examples to convey our interests in providing recreational enhancements at the Project in response to the proposed community center and its location.

The existing Fairfield County Park, a Parr Project access area, appears to presents an example of where a recreation area combines County interests in community facilities with DNR interests in outdoor recreation facilities at the Project. Similarly, in regard to the proposed 8.12 acre community center, we think keeping it within the Project makes sense; however, we also acknowledge there are probably alternative ways to meet the respective interests (County, DNR, SCE&G and others) even with the community center being located outside the Project. DNR will want to evaluate the related alternatives during the recreation planning processes which are conducted as part Project licensing.

We appreciate the opportunity to review this proposal and offer DNR comments. Please let me know if you have questions or need additional consultation with DNR.

Bill Marshall SCDNR 803-734-9096

From: AMMARELL, RAYMOND R [mailto:RAMMARELL@scana.com]

Sent: Wednesday, September 07, 2016 7:53 AM

To: Bill Marshall < MarshallB@dnr.sc.gov>

Cc: ARGENTIERI, WILLIAM R < BARGENTIERI@scana.com>

Subject: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

Bill,

As Bill Argentieri mentioned to you last week, Fairfield County has leased from SCE&G an 8.12 acre parcel inside the Parr Project Boundary Line (PBL) near Monticello Reservoir. The leased property is part of a larger SCE&G owned tract currently designated as recreation property within the project. The County has developed plans to construct a community center on the leased property, and in order that they may proceed with their plans without undue delay, SCE&G proposes to remove the 8.12 acres from project lands as an amendment to the current license. Only the 8.12 acres leased by the County are proposed to be removed from project lands, and the remainder of the designated recreation property would remain as project lands and be managed as such. The license requires consultation with the NPS, SCDNR and SCPRT on this matter.

Attached are the following:

- An overall map of the FERC Project 1894 area showing the location of the proposed Community Center;
- An aerial photomap showing the location of the 8.12 acres within the larger recreation designated property;
- A site plan showing the proposed Community Center development of the 8.12 acre parcel.

Please review the attached information, and let me know if your agency has any objection to SCE&G removing this property from within the PBL. If you believe a meeting or conference call is needed to discuss this request, please let me know and I will arrange for it. If you have any questions or require additional information, please do not hesitate to contact me.

Thanks,

Ray Ammarell

SCE&G - Fossil Hydro Technical Services 220 Operation Way Mail Code A-221 Cayce, SC 29033-3701

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AMMARELL, RAYMOND R

From:

Phil Gaines <pgaines@scprt.com>

Sent:

Tuesday, September 27, 2016 10:03 AM

To:

AMMARELL, RAYMOND R ARGENTIERI, WILLIAM R

Cc: Subject:

RE: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

***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.

After the review of the attached items, the South Carolina Department of Parks Recreation and Tourism has no objections to the request.

Please feel free to contact me if you need additional information or have any questions.

See you in the parks!

Phil

Phil Gaines

Director, SC State Park Service SC Department of Parks, Recreation & Tourism 1205 Pendleton Street, Room 251 Columbia, SC 29201

Phone: 803-734-0345 Mobile: 803-608-4179 www.southcarolinaparks.com



From: AMMARELL, RAYMOND R [mailto:RAMMARELL@scana.com]

Sent: Wednesday, September 21, 2016 3:51 PM

To: Phil Gaines

Cc: ARGENTIERI, WILLIAM R

Subject: Parr Hydro Project P-1894: Proposed Fairfield County Community Center

Phil,

Thanks for speaking with me this afternoon. As I indicated, Fairfield County has leased from SCE&G an 8.12 acre parcel inside the project 1894 Project Boundary Line (PBL) near Monticello Reservoir. The leased property is part of a larger SCE&G owned tract currently designated as recreation property within the Parr Hydroelectric Project. The County has developed plans to construct a community center on the leased property, and in order that they may proceed with their plans without undue delay, SCE&G proposes to remove the 8.12 acres from FERC Project 1894 as an amendment to the

current license. Only the 8.12 acres leased by the County are proposed to be removed from project lands, and the remainder of the designated recreation property would remain as project lands and be managed as such. The license requires consultation with the SCPRT for this action. SCE&G is also consulting with SCDNR and NPS as stipulated in the license.

Attached are the following:

- An overall map of the FERC Project 1894 area showing the location of the proposed Community Center;
- An aerial photomap showing the location of the 8.12 acres within the larger recreation designated property;
- A site plan showing the proposed Community Center development of the 8.12 acre parcel.

Please review these documents and let me know if your agency has any objection to SCE&G removing this property from within the PBL. If you believe a meeting or conference call is needed to discuss this request, please let me know and I will arrange for it. If you have any questions or require additional information, please do not hesitate to contact me.

Thanks,

Ray Ammarell

SCE&G - Fossil Hydro Technical Services 220 Operation Way Mail Code A-221 Cayce, SC 29033-3701

803-217-7322 Phone 803-206-3710 Cell 803-933-7847 Fax rammarell@scana.com

MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY U.S. Fish and Wildlife Service Meeting Conference Call

June 22, 2017

Final KMK 7-5-17

ATTENDEES:

Bill Argentieri (SCE&G) Ray Ammarell (SCE&G) Melanie Olds (USFWS) Henry Mealing (Kleinschmidt) Kelly Kirven (Kleinschmidt) Jared Porter (Kleinschmidt)

Purpose of Meeting

SCE&G and USFWS held a conference call to discuss the USFWS recommendation to develop a Species Protection/Monitoring Plan for freshwater mussels in portions of the Parr Hydro Project.

Discussion Points

- Genetic testing on the possible Carolina creekshell mussel found in Monticello Reservoir will be conducted by Three Oaks Engineering within the next few weeks. Results should be available by mid-July.
- It was agreed to that if testing shows that the mussels collected in Monticello Reservoir are not Carolina creekshell, monitoring within that reservoir will not be recommended after the license is issued (until such time as fish passage is installed at the Project).
- Henry stated that, after an investigation was performed early in relicensing, it was
 determined that sediment accumulation is not an issue in Parr Reservoir. Islands observed in
 the reservoir were not created by sediment accumulation, but instead are lands that were
 inundated when the Project was built.
- The Project has no sediment release program or functional sediment release gates. Sediment appears to move through the Project and downstream naturally.
- SCE&G and USFWS share concern over diverting flows from the east channel to the west channel, as part of the West Channel Adaptive Management Plan (AMP). Melanie mentioned that she does not want the existing habitat in the east channel to be harmed by flow diversion.
- Henry said he doesn't believe that a significant amount of flow can be diverted to the west channel such that the east channel habitat will suffer. In addition, the elevation of the west channel is higher than it is in the tailrace, so a large amount of water can't be diverted without the aid of pumps, which isn't an option being considered.
- Henry suggested that the changes to be implemented at the Project after the new license is issued shouldn't affect Parr and Monticello reservoirs much. The Minimum Flows AMP, West Channel AMP and Downstream Flow Fluctuations AMP will all positively affect the river downstream. Therefore, mussel monitoring should focus on the downstream area



(unless Carolina creekshell is confirmed to be present in Monticello Reservoir and until fish passage is installed at the Project).

- Kleinschmidt will develop a draft Mussel Monitoring Plan with the following specifics:
 - o Perform a baseline study in the Parr tailrace to include portions of the East and West Channels within 1 year after license is issued.
 - o Perform a follow-up study 9 years later (within 10 years after license is issued).
 - o If mussel populations increase or stay consistent (comparing historic, 1-year baseline, and 9-year data), perform additional studies every 15 years thereafter.
 - o If mussel populations decline, consult with USFWS to adjust monitoring frequency.
 - o Include an Introduction in the Plan that references previous mussel studies performed at the Project and explain why this plan is necessary.
 - Include a map with proposed sample locations will include the Parr tailrace and west channel area – sampling locations will try to mirror locations from previous studies.
 - Sample methods will be consistent with previous methods used so as to track data over time – include caveat that methodology can be altered if the USFWS develops new standard methodology for mussel sampling in the future.
 - o Sampling will be conducted by a licensed malacologist approved by the USFWS.
 - o Include wording that specifies if fish passage is installed at the Project, SCE&G will consult with USFWS on additional mussel monitoring at the Project.
- Melanie noted that monitoring mussels at the Project and potentially documenting a healthy population can help inform the USFWS and preclude certain mussel species from potentially being listed in the future.
- Kleinschmidt will develop the draft monitoring plan ASAP and distribute to stakeholders for review prior to the July 13th and July 18th meetings.



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

July 13, 2017

Final KMK 08-21-17

ATTENDEES:

Bill Argentieri (SCE&G)
Ray Ammarell (SCE&G)
Randy Mahan (SCE&G)
Caleb Gaston (SCE&G)
Brandon Stutts (SCE&G)
Melanie Olds (USFWS)
Rusty Wenerick (SCDHEC)
David Eargle (SCDHEC)
Fritz Rohde (NOAA)
Alex Pellett (SCDNR)

Dick Christie (SCDNR)
Bill Marshall (SCDNR)
Ron Ahle (SCDNR)
Gerrit Jobsis (American Rivers)
Bill Stangler (Congaree Riverkeeper)
Henry Mealing (Kleinschmidt)
Alison Jakupca (Kleinschmidt)
Kelly Kirven (Kleinschmidt)
Jordan Johnson (Kleinschmidt)

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

Henry opened the meeting with a safety moment and introductions. The purpose of the meeting was to review the Adaptive Management Plans (AMPs) and Monitoring Plans developed for the Parr Hydro Project. During this meeting, stakeholders discussed the Minimum Flow AMP, Downstream Fluctuation Flows AMP, American Eel Monitoring Plan, and Freshwater Mussel Monitoring Plan. A second meeting was scheduled for July 18th to discuss the remaining plans, including the West Channel AMP, Monticello Habitat Enhancement Plan, Erosion Monitoring Plan, Entrainment/Hydroacoustics Study, and Turbine Venting Plan. Henry reminded the group that comments on the Draft License Application are due at the end of August, and the Final License Application will be filed with FERC in May 2018. Three meetings are scheduled in August to discuss the Settlement Agreement.

Minimum Flow AMP

The group began discussion on the Minimum Flow AMP and the Comparison of SCE&G and Stakeholder Minimum Flow Recommendations Memo. Henry said that the Project does not have a storage reservoir, so if a Low Inflow Protocol (LIP) were triggered, there would be no way to supplement flows. Instead, SCE&G requested a 50 cfs operating margin during extremely low inflow periods to facilitate and simplify compliance and eliminate the need for a separate low inflow protocol. SCE&G originally requested a 100 cfs operating margin but is willing to reduce-the margin to 50 cfs.



Gerrit said he is concerned about the difference in the 1,200 cfs target low flow that stakeholders requested and the 1,000 cfs target low flow that SCE&G requested. Ray said that their request for a lower flow is related to compliance. SCE&G would spend a larger amount of time closely tracking inflow for compliance with a target flow of 1,200 cfs than they would at 1,000 cfs. Ray also said that the 1,000 cfs low flow fits in well with the 20/30/40 default state flow recommendation and with the IFIM and WUA data. Bill A. added that SCE&G increased their requested target low flow from 900 cfs to 1000 cfs in hopes that the TWC would approve it and the 50 cfs operating margin.

Gerrit said his real issue is not necessarily with the 1,000 cfs target flow as it is with the 800 cfs step down for the compliance flow. He said he has been on the river at the 800 cfs flow and it is difficult to navigate through some of the channels. The option to reduce flows to 800 cfs on a daily basis has an effect on habitat and recreation. Bill A. said that a flow of 800 cfs would only be for a few hours a day if necessary. If inflow is over 1000 cfs, that is the flow that will be passed downstream. Downstream flow at the Parr Project is totally dependent on Broad River inflow.

Ron mentioned his concern with a 1,000 cfs target flow is from a biological standpoint. He said that the lower the minimum flow is, the lower the flow will be to the west channel. He said that if SCE&G can show that at a 1,000 cfs flow the west channel will still receive a reasonable flow, his concern isn't as strong. Henry said that since this isn't a storage project, it doesn't matter as much where the target is set as how much inflow is coming into the project. He also reminded that no matter where the target flow is set, the west channel will end up with better flows than what it receives now. Henry reminded the group that this AMP has a 5 year review process, so if issues arise, the Review Committee can make adjustments.

Gerrit said the flow chart in the memo shows that during the high flow period, when flows range from 2200 cfs to 600 cfs, there is a 100 cfs drop down for compliance. He asked if there was a reason why there wasn't a 100 cfs drop for the low flow period. Could the 800 cfs compliance flow be changed to 900 cfs? Bill A. said that the numbers shown in the chart represent what he can agree to without further discussion with SCE&G management. However, Bill said if changing the 800 cfs compliance flow to 900 cfs would bring everyone together, he would talk to management about it.

The group then shifted focus and discussed SCE&G's request to have up to 6 hours per day (instead of 3 hours per day) of flows between the target and compliance flows in order to adjust the balance of storage between the reservoirs and to allow for variation in flow due to equipment or human factors. Dick said that a few meetings back, SCDNR suggested having an incentive for SCE&G to meet target flows when water is available. If water is available but the target flow isn't being met, maybe SCE&G should provide monetary compensation devoted to the resource. Ray said that the proposal from stakeholders was to allow 3 hours for adjustment from a target flow to a compliance flow. If SCE&G violates the agreed upon timeframe, they would be out of compliance and must report this to FERC. It will then be up to FERC to decide the penalty. Henry said that maybe during the first year of the AMP, allow SCE&G the 6 hour operating margin, then each year review the margin and try to narrow the window if possible. Henry also suggested that the stakeholders set a limit on how many hours can be contiguous. For example, 900 cfs is the compliance flow and the operating margin is 6 non-contiguous hours, with a maximum of "X" contiguous hours and a goal to reduce the operating margin over the course of the 5 year AMP. Alison suggested that this goal be listed in the goals and objectives section of the AMP. Randy said that this should be worded carefully so that the goal is not just to reduce the margin, but to set it at the appropriate level. Stakeholders agreed to allow SCE&G up to 6 hours per day (with up to 3 consecutive hours) of



flows between target and compliance flow in order to adjust the balance of storage between the reservoirs, and to allow for variation in flow due to equipment or human factors. A goal of the AMP will be to reduce the number of hours per day and the number of consecutive hours of flows between the target and compliance flow values, to the extent that a reduction is shown to be possible based on operational experience during the term of the AMP.

Dick asked Ray to explain how reservoir evaporation is calculated. Ray showed the group a chart with evaporation calculations on it. This information will be included in the AMP, along with definitions and a written explanation.

Ron asked if there was a point that SCE&G would stop generating at Fairfield due to low flows. Ray said not as long as the operators don't make a mistake. During a drought, the gates at Parr would be up continuously, river flow would be passed through the hydro, and the storage in Parr would be pumped to Monticello on a daily basis. Ron asked if, when the two new nuclear units are online and there is a surplus of energy, could the scenario be revisited? Ray said that the ability of Fairfield to pump in the early years of the new units will be critical. Load growth will eventually catch up to the new units, but during the early years, Fairfield will be critical for load shifting.

The group then discussed SCE&G's revised definition for Normal Operations that was included in the memo. Ray said if inflow is above the compliance flow, SCE&G should be able to release target flows with flexibility. However, the original definition for Normal Operations that the stakeholders provided stated that SCE&G would release net inflows all of the time, instead of the target flow. Bill A. said he didn't know if the wording was intentional, but SCE&G wanted to discuss it just in case.

The group broke so that stakeholders could have a private discussion. When they returned, the stakeholders said that the idea of releasing daily inflow shouldn't be included in the Minimum Flow AMP, but it should be captured somewhere. Stakeholders said that the agreed to minimum flows are based on current operations. Ray said that current project operations are described as modified run-of-river, with water being released in a controlled way. Stakeholders agreed to SCE&G's revised definition for Normal Operations contingent upon operations being addressed in the Downstream Flow Fluctuation AMP. Dick said that they are fine with the Minimum Flow AMP as long as Project operations don't change in the future. If Project operations change and storage becomes available, then a LIP might need to be revisited. The group agreed to include this wording in the Settlement Agreement.

The group then discussed the possibility of scheduling verification flows. Stakeholders are interested in viewing the low flow, especially at the navigation transects and at Bookman and Huffman Islands. Henry and Jordan will come up with a general plan for verification observations and Kelly will send out a doodle poll for the August/September timeframe to schedule this.

Downstream Flow Fluctuation AMP

The group reviewed the comments and edits that were submitted on the Downstream Flow Fluctuation AMP. Fritz said that some of the comments he submitted on behalf of NOAA highlighted areas where the NOAA general counsel might be concerned. Regarding their comment that members of the AMP Review Committee should also include those with a regulatory interest in water flows on the Broad River who aren't necessarily signatories to the Settlement Agreement, Bill



A. said that FERC will need to make that decision. In their comments, NOAA also asked why SCE&G would not start year-round fluctuation reductions prior to the new license being issued. Bill A. said that SCE&G prefers not to implement changes before the Biological Opinion or license is issued.

SCE&G and Kleinschmidt will make edits to the AMP to include meeting notes and memo references to clarify discussion on the downstream flow fluctuation effect on the Congaree River. They will also add definitions for hydraulic, turbine, and generator capacities and add Ray's evaporation table that will also be included in the Minimum Flow AMP. Ray will also put together some information regarding the calculations for mean deviation of outflow vs. inflow and send this out to stakeholders for review.

Alex asked if the lag in the gages is a limiting factor. Ray said that the gages can be added and used to make a decision on gate position. A gate adjustment can be made for inflow that isn't at the Project yet. Ray isn't sure how the time lag in gages can affect the mean deviations. In the future, it's possible that the crest gates could be automated, however that is an extremely expensive option. Ray said that right now the gates are lowered in ½ foot increments, but they can be lowered in 1/10 foot increments. Caleb asked how long it takes to adjust the gates if needed. Ray said it takes about 15 minutes. Gerrit asked is it not as expensive to man the Project 24 hours a day, 7 days a week versus automating the crest gates? Bill A. said that the Project will only be manned around the clock for the 28 days during the spring spawning period. This is SCE&G's solution to control downstream flows during that period until they make a decision to automate the crest gates. Bill A. also noted that automating the gate operations without having personnel present to observe the gates at the Project is a deviation from how SCE&G currently operates this project.

American Eel Monitoring Plan

Henry said that while there are big changes planned for the future in the Santee Basin (such as the installation of fish and eel passage), no one knows when these changes will take effect and until this happens, the American eel numbers shouldn't change substantially at Parr. Ron said he disagrees. He said that in early June he saw 8 eels downstream of Parr Shoals Dam. The group discussed modifying eel sampling times. Fritz said that April and May are peak season for eels at Roanoke, but last year there was also a peak in June. Melanie said there is also a second spike in October at Santee.

Dick said that it does appear that the eel population downstream of Parr Shoals Dam is pretty low. Everyone seems to want monitoring on a regular basis to see if and how much the population is growing. Before permanent passage is installed as part of the Accord, there may be a need for something in the interim to pass eels over the dam if numbers get high enough to warrant that. A threshold to trigger this is needed.

Henry said based on his observations there, he doesn't believe eel traps are the most effective way to monitor the tailrace areas. Periodic flows over the spillway gates can destroy the traps easily. Sampling in the spring will encounter sporadic flood flows that will likely flood out and or destroy eel traps.

Ron said he doesn't necessarily believe that a backpack shocker is a good tool for monitoring, but a boat shocker is. Effort can be measured in seconds of pedal time and could potentially be used to



estimate population size. However, Ron said that more sampling would be needed than what is proposed in the monitoring plan now. Fritz said that the boat shocking limits the habitat that boats can access, but backpack shocking opens up more habitat. He said that after an upward trend in eel population was established, that should trigger the construction of a permanent ramp. Fritz also reminded the group that NOAA did not sign the Accord. Henry said the traps that were used during the American eel study were put out per recommendations from Mark Cantrell, however they didn't catch any eels probably due to very low populations. Henry said that he thinks using a combination of boat and backpack shocking is good and a boat may be more useful in the west channel after flow is increased to that area.

Ron said those 8 eels he saw were the most he's ever seen in that area. Ron saw these eels just downstream of the dam in the east channel at the gravel shoals. He said the base of the dam might not be the best place to sample. Melanie agreed that sampling needs to occur in other areas besides the base of the dam. Everyone agreed to using boat and backpack shocking methods and to sample in the east and west channel and in the gravel area where Ron saw the eels. Sampling will occur generally from the powerline up to the dam. The group discussed how much pedal time should be spent in each area and by each method. Fritz suggested outlining an area on a map and just shock the general area, keeping track of how long it takes.

The group discussed sampling over three days in April, May and June, not necessarily with one day in each month, except during the first year of sampling. Ultimately, the Review Committee will determine when sampling will occur, including other months, such as October.

The group discussed the frequency of sampling. The stakeholders would like to see sampling occur every three years. The group agreed that sampling will occur during the first year after the license is issued, then every 5 years afterward (i.e., years 6, 11, 16, etc. after license issuance). Sampling will be increased to once every 3 years upon the completion of an eel passage at the Santee Cooper Project. Melanie asked if changes are made to the Columbia Project, could this affect eel populations at Parr. Henry said that there is a lot of flow at Columbia now and there is a natural stair step at the dam where eels can pass. So Columbia shouldn't be a factor in the future.

A schedule will be added to the American Eel Monitoring Plan for sampling over the course of the entire license, with a proviso for Santee Cooper eel ramp construction. A Review Committee meeting will be scheduled for the first February after the license is issued.

Freshwater Mussel Monitoring Plan

Henry told the group that the results of the Carolina creekshell mussel genetic testing should be available soon. Depending on those results, sampling in Monticello Reservoir may be added to the monitoring plan.

David said he would like to see some sampling locations added in Parr and Monticello reservoirs. Henry said that SCDHEC didn't give any recommendations for mussel monitoring, so he doesn't understand why they want to add sampling sites now. David said if something goes wrong with the populations in those areas, it would be good to catch it before things get bad. Henry said that the intent of the monitoring plan is to focus on areas where changes are taking place, such as changes to minimum flows downstream of the Project and in the west channel. Melanie said that she wants to



see documentation of the population downstream of the dam staying the same at a minimum, and hopefully increasing.

Melanie also said she would like to see monitoring occur more often, such as every 5 years. David said he agrees with that suggestion. Dick said that SCDNR has done a lot of monitoring over the last 15 years and the mussel population in that stretch of the river is as good as any in the state. He believes that monitoring every 10 years should be acceptable. Ron said that with the changes being made at the Project, he would like to see monitoring sooner than 10 years. The group agreed to monitor the first year after the license is issued and then again in years 7, 17, 27 and onward through the term of the license. However, if fish passage is implemented during the term of the license, then the Review Committee will meet to adjust monitoring frequency. A schedule will be added to this monitoring plan as well.

Before the meeting closed, Gerrit said that he would like to see IFIM data added to the Downstream Flow Fluctuation AMP that shows how the changes in flow stabilization will benefit habitat. He would like to see benefits show from a biological standpoint and just not a numbers/flow standpoint. Gerrit said that he will contact the agencies after the meeting so that they can discuss this and propose something to include in the AMP.

The meeting adjourned. Action items are listed below.

ACTION ITEMS:

- Bill A. will talk to SCE&G management about modifying the proposed minimum flow to 1,000 cfs with a 900 cfs compliance flow with the caveat of a 100 cfs buffer between the Target Flow and Compliance Flow having 6 hours per day (no more than 3 contiguous) below the Target Flow and having a 50 cfs operating margin when inflows are equal to or less than 600 cfs..
- SCE&G and Kleinschmidt will make all of the edits to the Minimum Flow AMP, Downstream Flow Fluctuation AMP, American Eel Monitoring Plan, and Freshwater Mussel Monitoring Plan that were discussed in the meeting.
 - o Minimum Flow AMP explain how reservoir evaporation is calculated
 - o Settlement Agreement add operational change wording
 - Downstream Flow Fluctuations AMP include meeting notes and memo references to clarify discussion on the downstream flow fluctuation effect on the Congaree River
 - Downstream Flow Fluctuations AMP add definitions for hydraulic, turbine, and generator capacities and add Ray's evaporation table that will also be included in the Minimum Flow AMP
 - Downstream Flow Fluctuations AMP Ray will also put together some information regarding the calculations for mean deviation of outflow vs. inflow and send this out to stakeholders for review
 - o Eel Monitoring Plan Sampling will occur generally from the powerline up to the
 - o Eel Monitoring Plan The group discussed how much pedal time should be spent in each area and by each method.



- o Eel Monitoring Plan the Review Committee will determine when sampling will occur, including other months, such as October
- o Eel Monitoring Plan sampling will occur during the first year after the license is issued, then every 5 years afterward (i.e., years 6, 11, 16, etc. after license issuance)
- Eel Monitoring Plan Sampling will be increased to once every 3 years upon the completion of an eel passage at the Santee Cooper Project
- Eel Monitoring Plan A schedule will be added to the American Eel Monitoring Plan for sampling over the course of the entire license, with a proviso for Santee Cooper eel ramp construction
- o Eel Monitoring Plan A Review Committee meeting will be scheduled for the first February after the license is issued
- o Mussel Monitoring Plan monitor the first year after the license is issued and then again in years 7, 17, 27 and onward through the term of the license
- o Mussel Monitoring Plan if fish passage is implemented during the term of the license, then the Review Committee will meet to adjust monitoring frequency
- o Mussel Monitoring Plan A schedule will be added to this monitoring plan
- SCE&G and Kleinschmidt will add wording to the Settlement Agreement regarding Project operations.
- Henry and Jordan will work up a flow observation proposal and Kelly will send out a doodle
 poll for the August/September timeframe to schedule the verification flow outing for
 minimum flows.
- Ray will put together some information regarding the calculations for mean deviation and send this out to stakeholders for review.
- Gerrit will contact the agencies to discuss adding IFIM data to the Downstream Flow Fluctuation AMP and propose something to include in the AMP.



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

July 18, 2017

Final KMK 08-21-17

ATTENDEES:

Bill Argentieri (SCE&G) Ray Ammarell (SCE&G) Randy Mahan (SCE&G) Caleb Gaston (SCE&G) Brandon Stutts (SCE&G) Beth Trump (SCE&G) Melanie Olds (USFWS) Fritz Rohde (NOAA) via conf. call

Alex Pellett (SCDNR)

Dick Christie (SCDNR) Bill Marshall (SCDNR) Ron Ahle (SCDNR) Bill Stangler (Congaree Riverkeeper) Henry Mealing (Kleinschmidt)

Alison Jakupca (Kleinschmidt) Kelly Kirven (Kleinschmidt) Jordan Johnson (Kleinschmidt)

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

Henry opened the meeting with a safety moment and introductions. The purpose of the meeting was to review the remaining Adaptive Management Plans (AMPs) and Monitoring Plans that were not discussed at the previous AMP meeting on July 13, 2017. Specifically, stakeholders discussed the West Channel AMP, the Monticello Habitat Enhancement Plan, the Erosion Monitoring Plan, the Entrainment/Hydroacoustics study plan, the Turbine Venting Plan, and the revisions made to the Recreation Management Plan.

West Channel AMP

The group began with a discussion of the West Channel AMP, starting with the randomized sampling grid that Ron developed for the plan. Henry said that Kleinschmidt modified the grid by removing areas that stay de-watered due to higher elevations. Henry also said that Kleinschmidt added a line in the text to specify that sampling could occur anywhere within a chosen grid, not necessarily at the mid-point.

Ron said he would like to simplify the goals and objectives section of the AMP. He stated that he believes the goal of the AMP is to enhance aquatic habitat by increasing flows and improving oxygen levels. Henry said that SCE&G's goal is to increase the dissolved oxygen (DO) to a level that is acceptable to SCDHEC. Henry said that in order to accomplish that goal flows would need to be increased in the west channel. Increased flows and increased DO would create improved habitat. Ron said that he believes the health of the aquatic ecosystem is the overall goal and, while increased DO is an important part of that goal, it is not the overall goal. Bill A. said that his concern is if DO is improved but species abundance and diversity doesn't increase, does that mean



the objective has failed. Ron said that he doesn't think that would indicate failure because the habitat was still improved. Henry noted that SCDNR's goal all along is to improve the aquatic habitat in the west channel. The reason that SCE&G pursued the issue is because SCDHEC said the DO in the area would be an issue for obtaining a 401 water quality certification. Dick said that the goals and objectives are not very well defined in the AMP. He said if SCE&G could agree that the overall goal of the AMP is to enhance aquatic habitat, the objectives could be to try to meet state DO standards specifically during the summer months and to maintain and/or enhance flows to the area.

Ron said that transects for the IFIM study were picked in the west channel area to see what flows are best for certain species. Henry said that other stakeholders have expressed concern over how much flow is going to be removed from the east channel to the west channel and how this will affect the species in the east channel. Henry also stated that he believes the habitat in the west channel is never going to be as good as that in the east channel. Ron asked why. Henry said that 70 percent of the west channel area is a long deep pool area. Ron said he believes there is a lot of potential habitat in the west channel that could be improved.

Henry said when channel modifications to admit more water to the west channel begin, it should be done incrementally and in consultation with the Review Committee, to determine how the modifications affect the east and west channels. Melanie said that the USFWS is interested in improving the west channel, but they don't want those improvements to negatively affect the east channel.

The group agreed to revise the goals and objectives section. Henry said that the plan should be clear and concise so that it isn't misconstrued later. Ron said that he doesn't believe meeting the state standard for water quality and DO is what should indicate success in the west channel. He believes that increased WUA is important and the AMP shouldn't focus solely on water quality. The group reached consensus on the revised goals and objectives for the AMP.

In the AMP, wording was added to explain that channel modifications are contingent upon US Army Corps of Engineers permitting. Brandon said that these permits are good for two years. Henry said that other considerations for the timing of channel modifications should include spawning seasons and potential future critical habitat designations in the area – Atlantic sturgeon for example.

The group discussed additional modifications to the DO random sampling grid. Melanie said that the grids where the continuous sampling will occur should be removed. The grids should also be renumbered.

Melanie said that the plan should specify the minimum number of random samples that will be taken in the west channel and at what frequency. The group agreed that 10 percent of the sites should be sampled. The sites should be chosen randomly and should be stratified, with a greater number of samples being taken upstream of the 213 bridge. The group agreed that a study plan will need to be developed and submitted to FERC after the license is issued. The group also agreed to change the title of this AMP to "Adaptive Management Plan: Enhancements to the West Channel Downstream of Parr Shoals Dam."



Monticello Reservoir Habitat Enhancement Plan

Henry said that the group should focus specifically on Section 5.0 of this plan, where the protection, mitigation and enhancement (PME) measures are spelled out. Henry said he believes that after SCE&G files this plan, FERC will ask for a study plan explaining how enhancements will be implemented.

Melanie said that the wording included in the plan regarding no long term monitoring was confusing and seemed to imply that short term monitoring would take place. This wording was changed to specify that no monitoring would occur. Dick said that SCDNR may do some monitoring with grad students. Melanie also asked if any maintenance of the structures would occur. Caleb said that SCDNR requested the installation of the structures and assured the group that the structures are effective, based on past studies. These structures are also permanent and will not fall apart over time, so maintenance shouldn't be necessary.

Ron said that the structures should be fitted with labels that include owner information. Signs should also be installed at each public boat ramp informing the public that a habitat enhancement program is underway and not to disturb the structures if they encounter them.

Erosion Monitoring Plan

The group discussed the comments that Bill M. submitted on the Erosion Monitoring Plan. Bill M. asked that more details be included within each erosion category. Ray said that vegetation was included as part of each erosion category description because it is used to visually indicate how much erosion is occurring. If trees are downed along the shoreline, then the area is likely eroding. Bill M. asked where they are looking for vegetation. Ray said they look in areas with scarp. If root balls are visible and if trees have recently fallen at the base of the scarp, this indicates erosion. Ray said that the categories are subjective, so they try to have the same person perform the monitoring every year to reduce variability.

Bill M. said he would like the category descriptions to be more measureable. He said that at the Keowee-Toxaway Project, scarp height was used to indicate erosion. Ray edited the plan to specify that if an area of active shoreline erosion is identified, measurements will be taken or reference pins will be installed to verify the severity of the erosion quantitatively. Bill A noted that the revised wording will need to be agreed to by the Dam Safety Department prior to finalization.

Entrainment/Hydroacoustic Study Plan

Henry told the group that SCE&G and Kleinschmidt performed additional analysis as part of the Entrainment Study using information that Bill M. sent over from previous Duke Energy studies. Dick said that the additional analysis wasn't completed exactly how SCDNR expected.

Henry said that SCE&G has committed to performing a hydroacoustic study in August, to examine species composition and how lights at the Project intake areas affect entrainment. Don Degan with Aquacoustics, Inc. will be working with Kleinschmidt and SCE&G to perform the study. Dick asked if Don has done a similar type of "lights on/lights off" evaluation previously. Henry said yes, at Lake Russell. Dick asked if there was an idea of the number of hours or the amount of effort that was going to be dedicated to the "lights on/lights off" experiment. Ray said operations will be off



each night for approximately three hours. Dick said he was a little concerned about a snap shot approach, but it sounds like that will be covered. Henry said that he talked with Don about timing of the study, and he indicated that August is the best time of year to examine how lights affect shad. Dick said if data is collected that shows what he thinks is happening (a relationship between entrainment and lights), improving entrainment will be a matter of modifying the lighting at the Project. However, if the data doesn't verify this relationship, the question is raised as to whether a relationship exists or is more data needed.

Henry said that stakeholders can observe the study if they are interested. An email will be sent out closer to the study to see if anyone is interested.

Melanie asked if the enhancements that are planned for Monticello Reservoir are located far away from the intakes. Henry said yes, that was taken into account when the enhancements areas were chosen. Melanie said that if entrainment is an issue for the reservoir, why would you want to enhance habitat and produce more fish? Henry said the habitat enhancement is being completed to help offset entrainment, but it could also encourage entrainment. The enhancements will be used to increase densities of fish higher in the lake, away from the intakes. Information on how site selection was made is included in the Monticello Habitat Enhancement Plan. This information will also be reflected in the analysis section of the Final License Application.

Turbine Venting Plan

All stakeholders indicated they were fine with this plan as it stands.

Recreation Management Plan

Alison explained that the land on which the Enoree River Bridge Recreation Site sits is owned by the US Forest Service (USFS). So before enhancements are completed at this site, SCE&G will need to gain approval for these enhancements from the USFS. Two footnotes were added to the Recreation Management Plan indicating this. Alison said that the USFS will likely need to complete the NEPA process and contact the SHPO about these enhancements, which will affect how long it will take to implement the enhancements. Alison said that the USFS may want to categorically exclude this from NEPA. They will still need to consult with SHPO, however, this process should be fairly straightforward.

Alison also discussed the existing sand-mining operation located in the Parr Reservoir, near the Highway 34 Recreation Site. She said that some of the stakeholders may be aware of a similar operation at the Duke Energy 99 Islands Project. Duke is in the process of obtaining a license amendment from FERC to allow the sand-mining operation to continue. SCE&G will likely have to do something similar to address sand-mining in the Parr Reservoir. Bill S. told the group that he receives phone calls every few months regarding the oil sheen from fuel spills/leaks from the sand-mining operation. Bill A. said that he spoke with the contractor who runs the sand-mining operation and he indicated that he would like to continue to operate in the area. Bill A. said he spoke with FERC and they asked him to write a letter explaining the situation. FERC will then respond by asking SCE&G to either file a request for non-Project use of Project lands and waters, or shut down the operation. SCE&G will need to consult with the agencies on this matter. SCE&G will also include this issue in the Final License Application.



Following this discussion, the meeting adjourned. Action items are listed below.

ACTION ITEMS:

- SCE&G and Kleinschmidt will make all of the edits to the West Channel AMP, Monticello Habitat Enhancement Plan, and Erosion Monitoring Plan that were discussed in the meeting.
 - West Channel AMP the grids where the continuous sampling will occur should be removed
 - o West Channel AMP the grids should also be renumbered
 - West Channel AMP ten percent of the sites should be sampled.
 - West Channel AMP the sites should be chosen randomly and should be stratified, with a greater number of samples being taken upstream of the 213 bridge
 - o Monticello Reservoir Habitat Enhancement Plan the structures should be fitted with labels that include owner information
 - o Monticello Reservoir Habitat Enhancement Plan Signs should also be installed at each public boat ramp informing the public that a habitat enhancement program is underway and not to disturb the structures if they encounter them
 - o Erosion Monitoring Plan changes were incorporated during the meeting
- Kleinschmidt will send an email to stakeholders prior to the hydroacoustic study to see if anyone is interested in observing.
- SCE&G Dam Safety Department will need to approve changes to Erosion Monitoring Plan.
- Kleinschmidt will include write-up of the mining operation in the Final License Application.



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

August 1, 2017

Final KMK 09-05-17

ATTENDEES:

Bill Argentieri (SCE&G)
Ray Ammarell (SCE&G)
Randy Mahan (SCE&G)
Beth Trump (SCE&G)
Caleb Gaston (SCE&G)
Brandon Stutts (SCE&G)
Melanie Olds (USFWS)
Rusty Wenerick (SCDHEC)
Pace Wilber (NOAA)
Fritz Rohde (NOAA)

Lorianne Riggin (SCDNR)
Dick Christie (SCDNR)
Bill Marshall (SCDNR)
Ron Ahle (SCDNR)
Gerrit Jobsis (American Rivers)
Bill Stangler (Congaree Riverkeeper)
Henry Mealing (Kleinschmidt)
Alison Jakupca (Kleinschmidt)
Kelly Kirven (Kleinschmidt)

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

Henry opened the meeting with a safety moment and introductions. The purpose of the meeting was to review the draft Comprehensive Relicensing Settlement Agreement (CRSA) that was distributed to stakeholders prior to the meeting. Henry told the group that the draft CRSA was developed using the Saluda Project CRSA as a template. Many of the stakeholders were involved in the development of the Saluda CRSA, so the document should be familiar to them.

The group began reviewing the document, starting with the table of contents and the introduction section. As the group worked through the CRSA, Ray edited the document in track changes. The edited CRSA is attached to the end of these notes.

Bill S. asked if any "individuals" would be signing the CRSA. Bill A. said that it's possible that some individuals would be signing, such as Mr. Hendrix and Mr. Carter, so the wording in the introduction was left open for that possibility.

Ron asked if the V.C. Summer Nuclear Station should be mentioned in the project description, since Monticello Reservoir provides cooling water for the facility. Ray said yes the facility should be mentioned.

During the Adaptive Management Plan (AMP) meetings in July, the group discussed the need to mention in the CRSA that the Downstream Flow Fluctuation AMP was based on current project operations. If, in the future, project operations change, the AMP will need to be revisited. Alison



said that if operations change, a license amendment would likely be required. This would also trigger discussion with the CRSA signatories.

Bill S. asked if everyone was comfortable with supporting SCE&G's request for a 50 year license. Gerrit said that American Rivers' support for a 50 year term will be dependent on how much SCE&G agrees to do for the environment over that term. Pace said he is okay with including language for a 50 year term in the CRSA as a placeholder. He said that NOAA generally isn't concerned with the license term, however, this request in the CRSA may need to be revisited later. Pace said that there is currently legislation in Congress that could make it easier for licensees to receive a 50 year license.

The group discussed section 4.1.3 Fish Passage. Henry said that this section was written assuming that NMFS and SCDHEC will not sign the CRSA, however this wording can be changed if these organizations do end up signing. Bill A. mentioned that the longer the license term is, the more likely it is that the fish passage process as laid out in the Accord will be initiated during the license term. Henry said that if NMFS signs the CRSA, wording can be added to clarify that although NMFS didn't sign the Accord, they still support the other programs in the CRSA. Pace said that NMFS is going to have to be honest with themselves about their goals and see how their vision lines up with the spirit of the CRSA. There is a chance NMFS may sign the CRSA, and if they do, this section can be tweaked to make it consistent with their goals. Rusty said he doesn't know how SCDHEC will go, but he can ask if his organization will be willing to sign the CRSA.

Pace suggested that section 4.1.4 Endangered Species Act include a mention of critical habitat for Atlantic sturgeon. The group agreed to put in a placeholder for this issue and after habitat is designated (as either unoccupied or occupied) in mid-August, this section can be modified at the August 30th CRSA meeting. This issue will also be discussed in Exhibit E of the Final License Application (FLA).

Melanie said that the USFWS is now consulting on the Northern long-eared bat for the entire state of South Carolina. She said that she is including this as a comment to the Draft License Application (DLA). This species is listed as threatened and the 4(d) rule applies. Although there is currently no known population in the Project area (although the knowledge of their range is expanding), and the Project likely doesn't impact the species, timbering of trees could affect the species. Melanie said that the USFWS highly recommends that licensees perform surveys for the species before cutting down trees. Henry asked if this should be addressed in the Shoreline Management Plans (SMPs). Alison said that the SMP addresses this already by referring to state forest management guidelines, which would include this recommendation.

Dick said that he is concerned with the last line as written in section 4.1.4. He said that it is written to say if something is inconsistent with the Biological Opinion (BO), any signatory could withdraw from the CRSA. Gerrit said that everyone should understand the implications of the BO before they walk away from the CRSA. The group agrees to edit this line to say that the agency issuing the BO may withdraw from the CRSA if the BO is found to be inconsistent.

The group discussed section 4.2.1 Commitments of Parties, specifically the line requiring all signatories to support the CRSA in public communications. Bill S. asked what this actually means. What are the signatories committing to when they say they support the CRSA? Bill A. said that this is public communications in an official capacity, and not an effort to control everyone within a



particular agency. Dick said that the group will address critical issues as they arise, so if someone disagrees with something within the CRSA, the issue will be worked through by the signatories. Dick also said that most of SCDNR's communications during a relicensing are not public communications to a news media, but rather a public document that is filed with FERC. Randy said that if you are willing to sign the CRSA, you should be willing to support it. The group agreed to remove the public communications portion of the sentence.

The group discussed the need to hold meetings after the NEPA document is issued and after the license is issued. The group agreed that the CRSA signatories should have the option to meet to discuss the NEPA document if deemed necessary. The group also agreed to request a transition meeting between FERC Division of Hydropower Administration and Compliance (DHAC), FERC Division of Hydropower Licensing, the Licensee, and other signatories to the CRSA.

Pace asked if it was necessary for an AMP Review Committee member to be a signatory to the CRSA. Dick said that this is a common requirement in settlement agreements, but FERC usually doesn't pay much attention to this. If the issue is important enough, FERC will require certain agencies to be on a Review Committee. Gerrit said that he believes this statement refers more to NGOs than agencies. He said that NGOs get added status by signing the CRSA. Dick said that he believes people should not be on an AMP Review Committee that are not bound to the same commitments as the signatories to the CRSA.

The group reviewed section 5.0 Definitions and Acronyms. The definitions and acronyms list will be revised to include a comprehensive list of definitions and acronyms that are mentioned in the CRSA and appendices and in the AMPs and monitoring plans. Kelly will also add a list of definitions and acronyms to the AMPs that is specific to each AMP.

The meeting adjourned. Action items are listed below.

ACTION ITEMS:

• SCE&G and Kleinschmidt will revise the CRSA based on meeting discussions and will reissue the CRSA to the stakeholders for review.



COMPREHENSIVE RELICENSING SETTLEMENT AGREEMENT

PARR HYDROELECTRIC PROJECT (FERC No. 1894)

Prepared for:

South Carolina Electric & Gas Company Cayce, South Carolina

Prepared by:

Kleinschmidt

Lexington, South Carolina www.KleinschmidtGroup.com

July 2017

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COMPREHENSIVE RELICENSING SETTLEMENT AGREEMENT

PARR HYDROELECTRIC PROJECT (FERC No. 1894)

SOUTH CAROLINA ELECTRIC & GAS COMPANY

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PARR HYDROELECTRIC PROJECT COMPREHENSIVE RELICENSING SETTLEMENT AGREEMENT

PARR HYDROELECTRIC PROJECT (FERC No. 1894)

SOUTH CAROLINA ELECTRIC & GAS COMPANY

1.0 INTRODUCTION

South Carolina Electric & Gas Company (SCE&G), as the holder of the current license for the Parr Hydroelectric Project (Project) (FERC No. 1894) and the applicant for a new license, hereby files the following Offer of Settlement Agreement pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (FERC or Commission) 18 C.F.R. § 385.602. This Comprehensive Relicensing Settlement Agreement (CRSA) has been entered into among SCE&G, state and federal resource agencies, NGOs, individuals and other entities who have been parties to the relicensing proceeding. The obligations and agreements presented in this CRSA are incorporated in appendices A and B. FurthermoreMoreover, the signatories to the CRSA request that the Commission incorporate the obligations and agreements as illustrated in Appendix A without material modification into the terms and conditions of the new license.

2.0 BACKGROUND

2.1 PROJECT DESCRIPTION

The Project is an existing licensed hydroelectric project located on the Broad River in Newberry and Fairfield counties, South Carolina approximately 26 river miles upstream from the City of Columbia. The Project consists of two developments: the 14.88-megawatt (MW) Parr Shoals Development (Parr Development) and the 511.2-MW Fairfield Pumped Storage Development (Fairfield Development). Parr Reservoir is a 4,400-acre impoundment formed by the Broad River and the Parr Shoals Dam and serves as the lower reservoir for the Fairfield Development. Monticello Reservoir is a 6,800-acre impoundment formed by a series of four earthen dams and serves as the upper reservoir for the Fairfield Development. The Parr Development consists of a powerhouse with six generators, a 2,390 foot long dam (including spillway and non-overflow sections), Parr Reservoir, and transmission and appurtenant facilities. The Fairfield

Development consists of four earthen dams, an intake channel, a gated intake structure, four surface penstocks bifurcating into eight concrete-encased penstocks, a generating station housing eight pump-turbine units, Monticello Reservoir, and transmission and appurtenant facilities.

2.2 PROJECT OPERATIONS

The Parr Development operates in modified run of river mode, and generates as a baseload facility using available inflows up to 4,800 cfs. This flow is associated with turbines set at approximately 50 percent gate opening, as the full hydraulic capacity of 6,000 cfs results in power output that exceeds the rated capacity of generators. SCE&G is planning to complete generator upgrades following issuance of a new Project license. This will result in a generating capacity increase of approximately 17 percent.

The Fairfield Development is utilized as a peaking resource, and also as a reserve generation asset to the extent it is not being used to meet peak demand of SCE&G's system. Fairfield generates and pumps using an active storage of 29,000 acre-feet of water. During the generation cycle, active storage in the upper Monticello Reservoir is released from the powerhouse into the lower Parr Reservoir. During the pumping cycle, the active storage is transferred from the Parr Reservoir back into the Monticello Reservoir. This cycle occurs daily, and the transfer of the full active storage results in an upper reservoir maximum fluctuation of 4.5 feet, and a corresponding lower reservoir fluctuation of 10 feet.

If Project operations are <u>materially</u> changed during the term of the new license, the signatories will meet to discuss potential revisions to the Adaptive Management Plans.

2.3 LICENSING HISTORY

The existing Project license was issued by FERC on August 28, 1974 for a period of 46 years, terminating on June 30, 2020. SCE&G initiated the formal relicensing process on January 5, 2015 by filing with the Commission the Notice of Intent, Pre-Application Document, and request to use the Traditional Licensing Process. Since that date, SCE&G has worked cooperatively with agencies and non-agency stakeholders through numerous resource group meetings to do the

Commented [ARR1]: Add discussion of VCS uses of reservoir.

Commented [KM2]: PLACEHOLDER – discuss wording with stakeholders at Settlement Agreement meeting

following: establish the scope of studies needed to address issues raised at the Project and develop study reports; conduct agreed upon studies; provide draft copies of study reports to agencies and stakeholders for review and comment; revise study reports to reflect agency/stakeholder comments; and complete follow-up studies deemed necessary to accomplish study goals. Resource Conservation Group (RCG) meetings and Technical Working Committee (TWC) meetings have also served to provide a forum for discussion of Project related concerns among stakeholders. These discussions have continued through the filing of the Draft License Application on May 31, 2017, the development of the Final License Application, and to facilitate development of this CRSA, resulting in the proposals set forth below.

3.0 PURPOSE OF THE CRSA

The purpose of this CRSA is to set forth resolutions reached among the signatories of this CRSA to issues raised during the relicensing process for the Project. The resolutions presented herein in Appendix A are respectfully proposed for consideration by FERC as it develops terms for the new license and have been structured in accordance with Federal Power Act (FPA) section 10(a)(1), 16 U.S.C. § 803(a)(1), for the balance of both developmental and non-developmental resources.

The purpose of Appendix B to this CRSA is to reflect off-license agreements made between CRSA signatories. These agreements have been proposed as off-license as they concern matters over which the Commission asserts no jurisdiction.

JULY 2017

4.0 TERMS AND IMPLEMENTATION

4.1 TERMS

4.1.1 GENERAL

This CRSA is in no way intended to conflict with the legal responsibilities of the CRSA signatories, nor be in conflict with any lawful statutory or regulatory responsibility of or authority held by the signatories. Furthermore, signatories to this CRSA are representing their belief that the issues resolutions developed through good faith efforts and presented herein do not conflict with these responsibilities.

4.1.2 FOR THE NEW LICENSE

The signatories to this CRSA recognize that the Commission will incorporate into the new license those articles required by 18 C.F.R. 2.9 (L-Forms), as well as such other articles as the Commission believes are necessary to fulfill its responsibilities in the administration and enforcement the new license. With these considerations, the signatories respectfully request that the Commission incorporate the terms set forth in this CRSA as presented in Appendix A as conditions of the new license without material modification. Based on the significant efforts made to achieve the agreements reflected in this CRSA, and subject to the Commission's approval of the various adaptive management programs underlying the parties' consensus on a number of issue resolutions, the signatories respectfully request that the Commission consider issuing a new license for a term of 50 years.

4.1.3 FISH PASSAGE

A Prescription for Fishways referenced within section 18 of the FPA, 15 U.S.C. § 811, is not included in this CRSA. A provision for Reservation of Authority by the Secretary of the Interior for the new license has been established and is included in the Santee River Basin Accord for Diadromous Fish Protection, Restoration, and Enhancement (Accord) (Attached as Appendix A-XX). The Accord was entered into by SCE&G, Duke Energy Carolinas, LLC, South Carolina Department of Natural Resources (SCDNR), North Carolina Wildlife Resources Commission, and United States Fish & Wildlife Service (USFWS). According to the Accord, the USFWS will

file with the Commission its reservation of authority for any fishway prescriptions for the Project for the term of the new license. Although not a signatory to the Accord because of their position that they may not bind themselves in any way that might infringe upon their various statutory authorities and obligations, the National Marine Fisheries Service (NMFS) and the South Carolina Department of Health and Environmental Control (SCDHEC) were integral members of the team that developed the Accord, and each will participate in its natural resource protection role as it determines appropriate.

4.1.4 ENDANGERED SPECIES ACT

Through cooperation, the signatories to this CRSA have developed Minimum Flow and Downstream Flow Fluctuation Adaptive Management Plans (AMPs) for the Project, which includes measures for stabilizing flows downstream of the Project in an effort to improve spawning conditions for several species of fish, including anadromous American shad, as well as landlocked populations of striped bass and shortnose sturgeon (Congaree River population). By the signing of this agreement, the USFWS and NMFS each represents that it believes the measures specified by the CRSA will protect rare, threatened and endangered (RT&E) species and that it intends to issue a Biological Opinion (BO) consistent with such measures. This CRSA is in no way intended to compromise the authority of the USFWS and NMFS and their determination of conditions for compliance with the Endangered Species Act (ESA), 7 U.S.C. §136; 16 U.S.C. §1531 et seq., or preclude any standard conditions pursuant to applicable law. In the event that a BO is inconsistent with this CRSA, any signatorythe -agency issuing the BO to this CRSA-may withdraw after discussion as described in Section 4.2.6.

4.2 IMPLEMENTATION

4.2.1 COMMITMENTS OF PARTIES SIGNATORIES

By the signing of this CRSA, signatories are expressing their support for the components herein (in some cases, as resolutions that may be less than they desire, but nevertheless representing compromise positions that they "can live with"), and the incorporation of these components into the new license issued by the Commission. Once the CRSA is signed, all signatories commit to supporting this CRSA to the extent allowable by their authority in all public communications regarding the relicensing of the Parr Hydroelectric Project.

Commented [ARR3]: Address unoccupied critical habitat for Atlantic Sturgeon after August 18 decision per NMFS.

Commented [ARR4R3]: Also add wording per USFWS on northern long eared bat.

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Commented [ARR5]: Change parties to signatories where appropriate.

Should the draft NEPA document be inconsistent with the CRSA, the parties will work cooperatively to develop appropriate responses to address the inconsistencies. Within 30 days after the draft National Environmental Policy Act (NEPA) document is issued by the FERC, SCE&G will has the option to convene a meeting with the signatories to determine whether or not the NEPA document is consistent with the terms of the CRSA. Should the draft NEPA document be inconsistent with the CRSA, the parties will work cooperatively to develop appropriate responses to address the inconsistencies.

Commented [ARR6]: Adjust this wording per GJ suggestion.

SCE&G will has the option to convene a meeting within 14 days after the issuance of the final NEPA document and/or the new license to review for consistency with the terms of the CRSA. Should the final NEPA document and/or license be inconsistent with the CRSA, the parties will work cooperatively to develop appropriate responses to address the inconsistencies.

Upon acceptance of the license, SCE&G will request a transition meeting between FERC DHAC and Licensing which would include the licensee and other signatories to the CRSA.

All signatories believe that this CRSA is consistent with all applicable laws and regulations. However, nothing in this CRSA is intended to abrogate the regulatory or statutory responsibilities of the parties under applicable law.

Participation in the Adaptive Management Plan (AMP) Review Committees is on a voluntary basis. Expenses incurred by AMP member organizations will not be reimbursed by SCE&G.

Signatories agree to provide current contact information (e-mail, mail, and phone) to SCE&G. SCE&G agrees to maintain the provided contact information.

4.2.2 COMMISSION REVIEW OF THE CRSA

Should the Commission have any questions or concerns with regards to the CRSA during the process of drafting the new license, the signatories request that the Commission arrange for the convening of a technical conference to discuss these questions.

Commented [ARR7]: See comment above.

Commented [KM8]: During the July 13th AMP meeting, stakeholders discussed the possibility of meeting with FERC after the license is issued to discuss compliance and AMP/license article implementation. This is a placeholder – discuss further in the Settlement Agreement meetings.

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4.2.3 MODIFICATION OF THE CRSA

After the signature period has ended, and prior to submission to the Commission, the signatories may by Unanimous Consent, modify the agreement. In the event Unanimous Consent is required, a signatory must respond to contact within three (3) documented attempts over the course of 10 days, or the consent process will move forward without them.

In the event environmental analysis or other pre-license investigation yields material new information which may warrant changes to the CRSA, SCE&G will convene a meeting with the signatories to discuss whether and/or how to modify the CRSA to address the material new information.

After submission to the Commission, modification of CRSA can only occur by the Unanimous Consent of all signatories through negotiation meetings and written consent.

4.2.4 LEGAL AUTHORIZATION OF SIGNATORIES

By the signing of this CRSA each signatory represents that he/she has the authorization from the party or parties he/she represents legally to bind that party or those parties to this CRSA. Moreover, upon signature, parties represented by the signing person(s) shall be legally bound to the terms expressed herein.

4.2.5 MODIFICATION OF ADAPTIVE MANAGEMENT PLAN REVIEW COMMITTEE MEMBERSHIP

Inasmuch as the term of the new license will extend over decades, it may be appropriate that new interests be represented or accounted for in the future. Because some signatory organizations may be transitional, and since new interest groups may arise, the current signatories agree that Adaptive Management Plan (AMP) Review Committee membership may benefit from modification. Therefore, membership changes will be considered, but no sooner than $\frac{10-5}{2}$ years from the date of the FERC Order granting a new license. With consensus of the AMP members, but subject to SCE&G's (licensee) agreement, membership in the AMP Review Committee may

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be expanded or otherwise modified. <u>Any member added to the AMP Review Committee must</u> abide by the requirements of the CRSA.

4.2.6 WITHDRAWAL OF PARTIES

A signatory may withdraw from this CRSA if his/her/its interests are materially affected by an Inconsistent Act by a Jurisdictional Body. An example of an Inconsistent Act is a new license requirement for downstream flows and/or reservoir fluctuations materially different from those in the CRSA.

Any signatory intending to withdraw from this CRSA will notify all other signatories in writing with the basis for the withdrawal no less than 60 days prior to the withdrawal. With notice to all signatories, any other signatory may require a meeting of the withdrawing signatory to have the matter heard prior to withdrawal from the CRSA.

Any signatory (with the exception of NMFS, USFWS, USFS, SCDNR, SCSHPO, and SCDHEC) that withdraws from this CRSA will also lose its membership to the AMP Review Committees. Initial AMP Review Committee members must be signatories to this CRSA, or one of the above listed agencies.

4.2.7 TERMINATION OF THE CRSA

Termination of this CRSA will occur under the following circumstances: (a) the withdrawal of SCE&G from this CRSA; (b) expiration of the term of the new license; (eb) the termination or surrendering of the new license to FERC by SCE&G pursuant to the requirements of the FPA.

If the License were to be transferred, the new Licensee would be bound to the requirements of the CRSA. However, SCE&G does would have an obligation to honor the leases or protections on Wildlife Management Area (WMA)-non-project properties as defined in Sections 5.0 and 6.0 of Appendix B.

Upon transfer of the License, SCE&G, as non-licensee, has no legal obligation to continue with the terms of "out of license" conditions contained in Appendix B pertaining to activities inside

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the Project Boundary. However, SCE&G does have an obligation to honor the leases on Wildlife Management Area (WMA) non-project properties as defined in Section 6.0 of Appendi B.

4.2.8 SIGNING PERIOD

SCE&G distributed the final CRSA with a signature page to each and every relicensing Party on XXXXXX. Each Party will have 30-45 days (XXXXX, 2018) from the date of distribution of the CRSA in which to return a fully executed signature page to SCE&G. SCE&G will add all of the fully executed signature pages to the original CRSA for filing with the Commission, and will provide copies of all completed signature pages to each of the signatories.

4.2.9 EFFECTIVE DATE OF THE CRSA

This CRSA becomes binding on the signatories at the end of the 30 days signing period (XXXX, 2018).

4.2.10 SUBMITTAL OF THE CRSA TO THE COMMISSION

This CRSA shall be submitted to the Commission with the Final License Application, or as soon thereafter as reasonably possible., but no later than 60 days after the end of the signing period (XXXXX, 2018).

4.2.11 STRUCTURE OF THE CRSA

The preceding sections serve to establish the responsibilities of the signatories to this CRSA, the terms of which are defined in Appendix A. The signatories respectfully request that the terms of Appendix A be incorporated into the terms of the new license without material modification.

4.2.12 OFF-LICENSE AGREEMENTS

Appendix B to this CRSA constitutes off-license agreements made between CRSA signatories. These agreements have been proposed as off-license as they concern matters over which the Commission asserts no jurisdiction, their existence carries no weight in the Commission's consideration of the license application under the Federal Power Act, or there is not a clear and

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demonstrated nexus between the agreement and the impacts of the Project. The enforceability of off-license conditions is controlled by the law of the State of South Carolina.

4.2.13 LICENSE AMENDMENTS

SCE&G will consult with signatories prior to requesting any license amendment that may be inconsistent with the CRSA.

5.0 DEFINITIONS AND ACRONYMS

The definitions set forth in the following sections are applicable to this CRSA and associated appendices and are fundamentally to their understanding and interpretation. When appropriate, these definitions may be adopted by the Commission into the articles of the new license.

- Acre-foot A volume of water equal to one foot depth over an area of one acre, or 43,560 cubic feet.
- Adaptive Management A process that allows for the review of protection, mitigation
 and enhancement programs incorporated into the terms of the new license. This process
 may allow for program modifications based upon unforeseen circumstances or
 conditions.
- Area of Potential Effects The geographic area or areas within which an undertaking
 may directly or indirectly cause changes in the character or use of historic properties, if
 any such properties exist.
- Cubic feet per second (CFS) A measurement of water flow representing one cubic foot
 of water moving past a given point in one second. One CFS is equal to 0.0283 cubic
 meters per second and 0.646 million gallons per day.
- Cultural resources Includes items, structures, etc. of historical, archaeological, or architectural significance.
- Dissolved oxygen (DO) One of the most commonly employed measures of water quality, DO is the amount of gaseous oxygen in a liquid. Low DO levels can adversely affect fish and other aquatic life.
- Elevation References in this CRSA are given in North American Vertical Datum 1988
 (NAVD 88); conversion to National Geodetic Vertical Datum of 1929 (NGVD 29), used
 in numerous supporting studies for the license application (and often erroneously referred
 to as MSL) requires the addition of 0.7 feet to elevation values referenced to NAVD88.
- Flow The volume of water passing a given point per unit of time.
- Hydrologic Condition The volume and distribution of precipitation, runoff, and streamflow into the Broad River basin which affect the amount of inflow to Parr and Monticello reservoirs at a given time.

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- Inconsistent Act Any action by a Jurisdictional Body that increases the burden upon or
 cost or risk to a <u>Party-Signatory</u> substantially beyond the burden, cost or risk reasonably
 assumed by the <u>Party-Signatory</u> into this CRSA, or that deprives a <u>Party-Signatory</u> of a
 substantial benefit promised by another <u>Party-Signatory</u> in this CRSA, such as by
 relieving another part of a substantial bargained for obligation.
- Jurisdictional Body any governmental body which as the authority to prevent the
 implementation of any part of this CRSA, or to require specific steps be followed prior to
 implementing any part of this CRSA or to require any other activity or activities that may
 result in an Inconsistent Act.
- Littoral Associated with shallow (shoreline area) water (e.g., the littoral zone of an impoundment).
- Lotic Flowing or actively moving water including rivers and streams.

Material -

- Minimum Flow A continuous flow, measured in CFS that is required to be released from the Project dam during specified periods of time.
- Non-Governmental Organization (NGO) An organization that has been created by an
 individual or group of individuals containing no official membership of participation by
 any governmental entity.
- Non-Project Property Lands not contained within the Project boundary. Unless clear in
 the context of its use that it is referring to non-SCE&G owned property, all uses herein
 shall be deemed to refer to SCE&G-owned properties outside the Project boundary.
- Pre-Application Document (PAD) a document, representing a collection of documents
 as compiled into a single unit, containing detailed information on a hydroelectric project;
 the document is used to describe the project and its resources and to start the applicant's
 consultation process with resource agencies and the public.
- Project One or more hydroelectric plants collectively included in a single license issued
 by the FERC. A Project typically consists of a dam or dams, reservoir(s), powerhouse(s),
 and appurtenant facilities. As used in this document, the capitalized term "Project" refers
 specifically to the Parr Hydroelectric Project (FERC Project No. 1894).
- Project area All lands and waters within and outside of the Project boundary that may
 influence materially or be influenced materially by Project operations.

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- Project boundary or Project boundary line (PBL) A demarcation line established by the FERC within which some level of interest in or control over lands, waters and structures are deemed necessary to operate a licensed hydroelectric project.
- Project vicinity The general geographic area in which the Project is located for the purposes of describing the existing environment around the Project.
- Recreation site A land and associated water surface area which people use for leisure
 activities, whether formally designated or used informally.
- Regulatory agency A governmental agency that has statutory authority to regulate human or business activities.
- Resource agency Federal, state, or interstate agency with responsibilities relative to
 flood control, navigation, irrigation, recreation, fish or wildlife, water resource
 management, or cultural or other relevant resources of the governmental jurisdiction(s) in
 which a project is located.
- Review Committee -
- Signatories Organizations and/or individuals signed on to the CRSA and not ceased to
 be by death or dissolution. Signatories must remain active in the CRSA in the event
 Unanimous Consent is required, a signatory must respond to contact within three (3)
 documented attempts, or the consent process will move forward without them.
- Stakeholder Any individual or organization (government or non-governmental) with an interest in the management and/or operation of the Parr Project.
- Streamflow The rate at which water passes a given point in a stream, usually expressed in CFS.
- Tailrace The tailrace is an area of river downstream of a dam where the impounded water re-enters the river after passing through the turbines.
- Unanimous Consent Consent Agreement by all signatories.
- Wildlife Management Area (WMA) An area established through the cooperative efforts
 of private landowners and the SCDNR to provide for the enjoyment of all wildlife
 enthusiasts. Seasonal hunting is allowed on these areas with the purchase of a WMA
 permit and hunting license.

Commented [ARR17]: Add definition.

ACRONYMS

ACOE US Army Corps of Engineers ADA Americans with Disabilities Act

Area of Potential Effect APE

American Rivers AR

AIR Additional Information Request Adaptive Management Plan AMP AW American Whitewater ВО **Biological Opinion CNP** Congaree National Park CRK Congaree Riverkeeper

Comprehensive Relicensing Settlement Agreement CRSA

CWA Clean Water Act DLA **Draft License Application** DO Dissolved Oxygen **EAP** Emergency Action Plan

EPA US Environmental Protection Agency **FEMA** Federal Emergency Management Agency **FERC** Federal Energy Regulatory Commission

FLA Final License Application **FPA** Federal Power Act

HEC-RES

Hydrologic Engineer Center - Reservoir Evaluation System Historic Properties Management Plan

HPMP HSI Habitat Suitability Index

IFIM Instream Flow Incremental Methodology

MOA Memorandum of Agreement Memorandum of Understanding MOU

Mean Sea Level MSL

North American Vertical Datum NAVD NGO Non-Governmental Organization National Geodetic Vertical Datum NGVD National Environmental Policy Act **NEPA** National Marine Fisheries Service **NMFS**

National Oceanic & Atmospheric Administration NOAA

NPS National Park Service

NRHP National Register of Historic Places NWI National Wetlands Inventory **NWS** National Weather Service PA Programmatic Agreement Pre-Application Document PAD

Protection Mitigation & Enhancement PM&E Resource Conservation Group **RCG** Ready for Environmental Assessment **REA**

SCDHEC or DHEC South Carolina Department of Health and Environmental Control

JULY 2017 14 RD Ranger District

RMP Recreation Management Plan RT&E Rare, Threatened and Endangered

RSSL Rocky Shoals Spider Lily

SCDNR or DNR South Carolina Department of Natural Resources

SCE&G South Carolina Electric & Gas Company

SCORP South Carolina Comprehensive Outdoor Recreation Plan SCPRT South Carolina Department of Parks, Recreation and Tourism

SCSHPO or SHPO South Carolina State Historic Preservation Office

SMP Shoreline Management Plan
THPO Tribal Historic Preservation Officer
TWC Technical Working Committee
USDA US Department of Agriculture

USFS US Forest Service

USFWS US Fish and Wildlife Service
USGS US Geological Survey
WMA Wildlife Management Area
WUA Weighted Usable Area

MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

August 10, 2017

Final KMK 09-05-17

ATTENDEES:

Bill Argentieri (SCE&G)
Ray Ammarell (SCE&G)
Randy Mahan (SCE&G)
Corbin Johnson (SCE&G)
Caleb Gaston (SCE&G)
Brandon Stutts (SCE&G)
Melanie Olds (USFWS)
Rusty Wenerick (SCDHEC)
Pace Wilber (NOAA) via conf. call
Fritz Rohde (NOAA) via conf. call

Dick Christie (SCDNR)
Bill Marshall (SCDNR)
Ron Ahle (SCDNR)
Andrew Hook (SCDNR)
Gerrit Jobsis (American Rivers)
Bill Stangler (Congaree Riverkeeper)
Henry Mealing (Kleinschmidt)
Alison Jakupca (Kleinschmidt)
Kelly Kirven (Kleinschmidt)

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

Henry opened the meeting with a safety moment and introductions. The purpose of this meeting was to review and discuss Appendix A of the Comprehensive Relicensing Settlement Agreement (CRSA) including the revised Adaptive Management Plans (AMPs) and Monitoring Plans, and Appendix B including the off-license agreements under development.

CRSA Appendix A

Gerrit said that a sentence should be added to the introduction that says the agreements listed in Appendix A will be incorporated as proposed license articles. Gerrit said he thought we would submit draft license articles to FERC later. The group agreed to include a new appendix to the CRSA (Appendix E) that will include proposed wording for the license articles. The group agreed that if FERC changes a particular plan, that plan will be replaced in Appendix A with the FERC-approved version and will be marked as such on the cover page.

Bill M. said that for some of the Duke Energy projects he has worked on, the settlement agreements included specific information on the proposed protection, mitigation and enhancement (PM&E) measure, such as Recreation Management Plan (RMP) improvements. This way, if FERC changes the RMP, the improvements agreed to by the licensee and stakeholders are still captured in the settlement agreement.



Henry said that the current Entrainment Report can be modified to include PM&E measures, renamed as the Entrainment Plan, and included in Appendix A.

Downstream Flow Fluctuations AMP

Pace said that he is afraid that the Protective Resources Division (PRD) of NOAA Fisheries will not view this AMP as sufficient in addressing sturgeon concerns. He said that any supplemental information that could show the quantitative reduction in peaking would be helpful. Henry reminded the group that Parr is not a storage project and that the group has been struggling with this for over a year because the fluctuation and the affected river hydrology are unpredictable and change, year to year, month to month, and day to day. This makes it difficult to predict with scientific accuracy, a percentage of fluctuation reductions. Gerrit said that the goal is to minimize fluctuations and make the downstream flow mimic natural flow as closely as possible. He said he has been looking at other projects that reregulate flows from upstream. Dominion developed an optimization model to help their plants coordinate operations. The optimization model used inflow forecasting to predict flows ahead of time, allowing operators to better control the projects. Gerrit said this is something that could be done at the Parr Project. Ray said he has tried to do this in a basic way. Right now, SCE&G is proposing to man the plant 24/7 during the four week spring spawning period to control reservoir levels with gate positions and reduce the downstream fluctuations. He said right now, SCE&G isn't looking to develop a model that tracks flows. SCE&G has committed to the AMP as it is written. Ray said he was hoping that over the course of the 5-year AMP, results would show that automating the system would be best. While SCE&G is not in a position to commit to a model at this time, this is something that could be examined during the AMP. Ray said that language can be added to the AMP that mentions the possible development of a model. Gerrit will provide this language and reference other projects where an optimization model has been developed.

Dick said that, while the AMP provides the opportunity to evaluate options to optimize the project, he heard Pace ask for additional information now. Ray said he can look at some spreadsheets that might show how the measures proposed in the Downstream Flow Fluctuation AMP will work. Pace said that he can guarantee that if this information isn't included in the AMP, PRD will ask for it. Providing the information now will allow the process to run more smoothly and hopefully allow NOAA to sign the CRSA. He asked if the list of meeting notes referenced in the AMP can be consolidated for easier viewing – perhaps in a PowerPoint presentation. Henry said yes, Kleinschmidt will summarize the notes and send it out to stakeholders by the end of September. Pace said that the PRD needs to ensure there are no issues with NOAA's section 7 consultation, or they will have to withdraw from the CRSA. Bill A. also offered SCE&G's help with the presentation of the information to the PRD if that would help with the approval process.

Minimum Flow AMP

Bill M. sent in comments regarding the operation margin language in the AMP. The group reviewed his edits and everyone agreed to include them in the final AMP.

West Channel AMP

Ron said he still has issues with the goals and objectives section in the AMP. He said that the goal of the AMP should be to increase flows with an outcome of increased DO, stabilized temperature



and improved or maintained aquatic habitat. Ron said that, during the low minimum flow period, if the channel is able to carry 200 cfs to the west channel when the overall minimum flow is 1000 cfs, and he knows that the 200 cfs is going to the west channel during these low flow periods, then he is okay with that. The lowest flow going to the west channel will always be 200 cfs (unless inflow doesn't allow for this). When flows are higher, more flow will go to the west channel. Ron said that there should be the possibility of a gate being dropped to flush out the west channel during extremely low flow periods.

The group agreed that existing IFIM data could be used to determine whether the increased flows also are increasing aquatic habitat. SCE&G and Kleinschmidt will revise the AMP to include a section on how IFIM data could be used to examine aquatic habitat changes. Brandon mentioned that wording also needs to be added to the AMP about the potential for a critical habitat designation for sturgeon in the west channel by NOAA Fisheries. The NOAA ruling on sturgeon will be issued publicly on August 18, 2017 and the group will include pertinent sections applicable to the Parr AMP.

SCDNR Memorandum of Understanding

Dick said that one goal of the Memorandum of Understanding (MOU) is to establish better communication with SCE&G on different issues, including the draining and filling of the Broad River Waterfowl Area impoundment. SCDNR proposed a simple protocol that addresses this issue. Andrew said that SCDNR's primary goal is to flood the impoundments during the peak migration times (November 1-15). SCDNR should be able to completely or almost completely fill the impoundments in 72 hours without the use of pumps or additional work from staff, if Parr Reservoir is held at a high elevation. SCDNR requested that SCE&G inform them when the reservoir level is going to be lowered, so that they can close the gates and not lose the water they already have in the impoundments. Basically, SCDNR would like to be notified when there is going to be a change in water level. Bill A. said Parr Reservoir isn't usually above 265' at that time of the year. He asked Andrew if a level of 262' or 260' would work. Andrew said yes, that would work with the addition of the pumps. He said that even 24 hours would be helpful, if a full 72 hours isn't possible. Andrew and Bill A. also discussed the best scenarios for draining the impoundments each year. Andrew said that a reservoir level of 258' or lower for 12 hours would be acceptable. SCDNR prefers to drain the impoundments by March 1st, so that the land can dry out and be planted during the summer. Andrew noted that the requested elevations for just a few hours a day to flood and drain the fields, would be beneficial to SCDNR. The main takeaway from the discussion was that increased communication between SCDNR and SCE&G is needed. Henry noted that SCDNR should contact SCE&G at the beginning of October and February to schedule these activities and not place that responsibility on SCE&G. Bill A said he would revise this section of the proposed agreement as discussed in the meeting and check with System Control's ability to support this request. If agreed to, a test run could be done this fall and next spring.

Towards the end of the meeting, the group revisited the SCDNR MOU. The group discussed 1) the marking of boating hazards in the Project reservoirs and 2) channel navigation in Cannon's Creek and Heller's Creek. Henry asked about the proposed selective removal of stumps in the creeks. What would this effort include? Bill M. said he isn't sure of the extent of the problem, but he doesn't envision this being a big project. Dick said you would first need to mark a channel, then removal the stumps that are within that channel. Brandon said that this would require underwater cutting to cut the stumps out. Pulling them out could lead to sedimentation and would remove fish



habitat. Regarding the marking of boating hazards in the reservoirs, it was questioned whether this was feasible for Parr since there is a large number of potential hazards to be marked. Bill M. said the proposal on marking of hazards in reservoirs should be changed to refer to Monticello only. Henry suggested including these agreements with SCDNR as an off-license agreement, rather than in a separate MOU, so that this doesn't get included as a license article that doesn't have any flexibility.

American Eel Monitoring Plan

Melanie said that she likes the flexibility of developing a study plan after the American Eel Monitoring Plan is approved by FERC. Bill A. said he doesn't think 120 days after the license is issued is enough time to develop a study plan. The group agreed to change the schedule to say that a study plan will be submitted to FERC within 180 days after the license is issued.

Freshwater Mussel Monitoring Plan

The group approved the edits to the mussel monitoring plan. Bill A. asked that the schedule be changed to say that a study plan will be submitted to FERC within 180 days after the license is issued and the group agreed.

CRSA Appendix B

Gerrit said that an introductory statement should be included in Appendix B, similar to the one that is in Appendix A.

Ron said that he doesn't believe the Shoreline Management Plan Handbook should be included in the off-license agreements. The group discussed this and agreed to remove it from this appendix.

The group agreed to discuss the various off-license agreements and then return to the Appendix B and discuss its structure.

SCDNR Land Proposal and Habitat Enhancement Program

Bill M. said that SCDNR previously expressed interest in land conservation and recommend land protection as an additional PME measure during meetings of March 2017. He said that SCDNR informally shared a set of maps with SCE&G in March that included 14 properties they were interested in setting aside for land conservation. Bill M. said that their interest in land protection is flexible. Permanent protection is preferred by SCDNR but understanding SCE&G's position, SCDNR is suggesting that land protection be established for the license term by: 1) developing a relicensing agreement to limit uses and sale of parcels, 2) bringing parcels into the Project Boundary, or 3) leasing parcels to an entity for public recreation and conservation purposes. Bill A. asked if SCDNR could prioritize the parcels according to which ones they believe are more important for protection. Bill M. said that the 7 parcels on the Broad River near the islands (Haltiwanger and Huffman) are highest priority. Among these, the five parcels on the west bank in Richland County would have higher priority since Richland County has a higher potential for development and future possibilities for establishing public access might be greater there among the identified properties. Parcels in Fairfield County are second in priority.



Bill A. asked if, in the term "forestry" in the suggested language that SCDNR provided to include within a relicensing agreement, means that SCE&G could still use the land for timbering. Bill M. said yes. SCDNR is interested in protecting the land from being sold for future development. Melanie said she has concerns about forestry practices. Corbin said the land department follows Best Management Practices (BMPs) from the Forestry Commission. Melanie said beyond BMPs, she would like to see the lands enhance or provide additional habitat. She said that many times, BMPs only specify avoidance, and she would rather see enhancement for the conservation of bat species. Henry asked if any of the land protection agreements that SCDNR has developed at other projects have an element for enhancement. Dick said there is separate funding to help with enhancement, but the land protection agreements don't contain any enhancement measures. Henry asked Melanie to bring forward any restrictions she would want on the lands so that SCE&G can consider it. He also asked her to pick out high priority properties that might be good for enhancement. Melanie said she wouldn't propose any restrictions, but instead is encouraging SCE&G to take voluntary actions to provide protection to bats. She will provide a list of these actions to SCE&G.

Henry asked if the lands that SCDNR has proposed for protection are accessible to the public. Corbin said that the lands are accessed by crossing private property. Bill M. said that SCDNR is proposing that the identified SCE&G lands could be leased to provide public access in anticipation that sometime in the future other necessary lands might be acquired to help with access.

Gerrit said he wants to see a differentiation in what mitigation measures are for aquatic resource impacts versus recreation impacts. American Rivers doesn't support land protection as mitigation for aquatic resource impacts. Bill M. said that although they are thinking of the land protection as a broad mitigation rather than in kind, they are sympathetic to the idea that mitigation for aquatic impacts should be separate.

Henry said the SCDNR proposed Habitat Enhancement Program (HEP) could be included in the license, including the funding, which could help SCE&G obtain a longer license term. The longer the license, the longer the land protection occurs.

Henry said that SCE&G would need to be a member of the Proposal Review Committee. Bill S. suggested that HEP membership could begin with founding members and include a process to allow in new members, similar to the language that is included in the CRSA.

Gerrit said that Alcoa's Tapoco Project developed an aquatic resources fund with a fiduciary board that solicits proposals for spending the money. This is similar to the Broad River Mitigation Fund. Gerrit will distribute the Alcoa fund agreement to the group. Bill M. said that the funds for the Keowee-Toxaway and Catawba-Wateree HEPs are held by a non-profit organization similar to the Central Carolina Community Foundation.

Henry said that SCE&G needs to look at the land proposal and determine if they want to include any of the lands in the Project Boundary, or keep the land proposal off-license.

Bill A. will need to discuss the HEP fund with his management. Henry said that the SCDNR's proposal designates an annual donation of \$183,000 into the HEP fund based on the recreation value for fisheries at Monticello Reservoir. However, Henry said that the recreation value for fisheries in Parr Reservoir should be much lower. Bill M. said that the cost for the Monticello



fishery was developed per acre, and then transferred to Parr. Henry said that he believes these values are high for determining the recreation value at Parr. Henry also noted that the recreation value at the Project may also be less now that the V.C. Summer nuclear expansion project has been abandoned. The population in the area is decreasing, so there are less people utilizing the recreation sites. Henry added that SCE&G has also agreed to a list of enhancements at the recreation sites to mitigate for recreation loss. Henry asked SCDNR to consider reducing the annual donation to the HEP fund down from \$183,000, based on more realistic estimations of the Parr recreational fishery impacts. Melanie said that she is interested in mitigation for all aquatic species and these numbers are based only on the recreational fishery. Later in the meeting, Bill A. asked Bill M. if SCDNR would provide a new value for their proposed HEP fund and Bill M. asked SCE&G to propose a number they could live with.

Subsequent to the meeting, SCDNR provided the following paragraph to clarify their value of the recreational fishery at the Project Reservoirs:

"The recreational fishing value that SCDNR attributed to Parr Reservoir is derived from recreational creel survey data collected from 1987-1999 at Monticello, a timeframe that precedes VC Summer expansion activity by 10 to 20 years. Using the creel survey data, an average annual value of the fishery was calculated, then adjusted to 2017 dollars, and finally converted to an annual value per acre of reservoir. For the proposed HEP contribution, the value per acre was multiplied by Parr Reservoir surface acreage that is frequently fluctuating (2994 acres) because of operations at the Project. Again, the recreational fishing value suggested by SCDNR is based on fishing activity that preceded the effects of VC Summer expansion activity by 10 to 20 years."

Gerrit said that he thinks it is unrealistic that SCE&G will get a 50 year license term and he doesn't want this settlement agreement to fall apart if the license term is less than 50 years. He suggested putting in different measures for different length terms.

American Rivers Recreation Maps

Bill A. said that, originally, SCE&G was going to develop a simple map showing recreation access areas at the Project. However, American Rivers shared a better example of a recreation map that would encompass more area than solely that within the Parr Project Boundary. SCE&G is willing to provide funding to print 2,500 maps after American Rivers developed the maps. Gerrit said, from their perspective, they would like to include the Broad River and the Enoree River. He said there is a process to developing a map. Recreational access must be identified, including islands that SCE&G has control over and private property owners. Historical content must be developed. Then a contractor would be hired to lay out the map, which would cost a couple thousand dollars for one section (each map would have two sections). Finally, there are printing costs to consider, which would be a few dollars per map. American Rivers would like to have funding that includes the cost to develop the information, hire the contractor, and print the maps. Henry asked if American Rivers could lay out the process and total cost for each of the three phases of this effort. Gerrit said he would be glad to lead the process and encourages other CRSA signatories to be involved as they are interested.

Navigational and Minimum Flow Verification



Several stakeholders are interested in viewing the 1,000 cfs minimum flows in certain areas downstream of the project. Gerrit is also interested in viewing the flows from a navigation standpoint. The group agreed that October might be the best timeframe. Henry will resend his email to stakeholders requesting feedback on this outing.

The meeting was adjourned. Action items are listed below.

ACTION ITEMS:

- SCE&G and Kleinschmidt will develop an Appendix E with draft wording for license articles.
- Kleinschmidt will summarize the meeting notes from the Downstream Flow Fluctuation AMP into a PowerPoint presentation and distribute to NOAA Fisheries and stakeholders.
- Gerrit will provide language to include in the Downstream Flow Fluctuation AMP about the possibility of developing an optimization model.
- Kleinschmidt will revise the West Channel AMP to include information about the use of IFIM data to examine aquatic habitat.
- Stakeholders will add wording at the next CRSA meeting (August 30) to the West Channel AMP about NOAA Fisheries' critical habitat designation for sturgeon in the area.
- Bill A will check with System Control's ability to support the request from SCDNR for flooding and draining the Broad River Waterfowl Area.
- Melanie will provide a list of voluntary actions that she would like SCE&G to take to provide protection to bats on lands to be offered in response to SCDNR's request for conservation protection.
- SCDNR will revisit their original request of \$183,000 annual donation by SCE&G into the HEP fund to determine if that figure is reflective of the recreation fishery impacts in Parr Reservoir.
- Gerrit will distribute information on the Tallassee Fund that was developed with Alcoa as part of their Tapoco Project relicensing.
- Gerrit will lay out a process and total cost for each of the three phases for the development of the recreation maps.
- Henry will resend his email on the verification flow plan to the stakeholders.
- Kleinschmidt will revise Appendix A of the CRSA to match the revised titles of the AMPs and Monitoring Plans.
- Kleinschmidt will revise all AMPs to include new wording from the CRSA on Review Committee membership.



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

August 30, 2017

Final KMK 10-09-17

ATTENDEES:

Bill Argentieri (SCE&G)
Ray Ammarell (SCE&G)
Randy Mahan (SCE&G)
Beth Trump (SCE&G)
Corbin Johnson (SCE&G)
Caleb Gaston (SCE&G)
Brandon Stutts (SCE&G)
Melanie Olds (USFWS)
Rusty Wenerick (SCDHEC)
Pace Wilber (NOAA) via conf. call

Lorianne Riggin (SCDNR)
Dick Christie (SCDNR)
Bill Marshall (SCDNR)
Ron Ahle (SCDNR)
Gerrit Jobsis (American Rivers)
Bill Stangler (Congaree Riverkeeper)
Henry Mealing (Kleinschmidt)
Alison Jakupca (Kleinschmidt)
Kelly Kirven (Kleinschmidt)

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

Ray opened the meeting with a safety moment. The purpose of this meeting was to continue discussion of the Adaptive Management Plans (AMPs), Comprehensive Relicensing Settlement Agreement (CRSA), and off-license agreements. Prior to the meeting, Kelly distributed several documents for the stakeholders to review. These documents are attached to the end of these notes. The stakeholders held a break-out session to discuss these documents separately from SCE&G and then reconvened to discuss the items on the agenda together.

West Channel AMP

Following the CRSA meeting held on August 10th, SCE&G edited the wording in Section 3.0 to limit the scope of the AMP to the measures laid out in Section 5.0. They also added a sentence that clarifies if the desired improvements to aquatic habitat in the West Channel are not realized to the extent expected or desired by the Review Committee, despite the implementation of the methods described in Section 5.0, no further action on the part of SCE&G will be required under the AMP. Stakeholders agreed to this revision.

The group also discussed the edits made to Section 5.0. Gerrit said that the WUA analysis seemed like an afterthought in the AMP, and requested that the word "determined" be changed to "evaluated." Everyone agreed to this change.

CRSA Structure



Henry said that the group needs to discuss the structure of the CRSA, including the appendices. Henry suggested that the CRSA Appendix A include the AMPs, monitoring plans, Shoreline Management Plans (SMPs), Recreation Management Plan (RMP), and the Habitat Enhancement Program (HEP). He also suggested that Appendix B include only the Blue Trail Maps. A separate off-license agreement will include the Memorandum of Understanding (MOU) with SCDNR and others that will be enforceable under state law. This agreement will include the flooding and draining of the WMA, Monticello Reservoir hazard marking, and the land protection agreement. Dick asked if the MOU could be initiated upon signature. Bill A. said that he would like to wait to initiate the MOU until the license is issued. Dick said it could be years before a new license is issued, and it would be nice if the WMA flooding and draining and the hazard marking could be completed earlier. He asked if SCE&G would consider implementing the MOU earlier than when the license is issued. Bill A. said he would talk to his management about this. Caleb suggested having a provision for each issue in the MOU, specifying when each one goes into effect. This way, the land protection piece of the MOU could be tied to the license issuance.

Flooding and Draining WMA

Dick said that Andrew Hook with SCDNR needs to review the proposal that SCE&G sent out, but as far as he is concerned, it looks good. Bill A. said that this process can be used this coming fall and spring. Dick said that it will be a work in progress, but this will open a line of communication between SCDNR and SCE&G.

Monticello Reservoir Hazard Marking

Bill M. said he doesn't see an issue with the proposal that SCE&G sent out, but asked why the Cannon's and Heller's Creek navigation marking was removed. Bill A. said he got word from management that this would be a legal issue and there would be no practical way to do it without opening the company up to potential legal issues.

Habitat Enhancement Program

Ray explained the formula he developed to calculate the annual contribution SCE&G would make to the Habitat Enhancement Program. SCE&G management asked him to tie the annual amount to the pumped storage operation in a way that would make the contribution commensurate with the pumped storage operation and also tie it to some type of existing valuation of operation that is a part of the current license. Ray said the only thing that meets that requirement is the annual charges that SCE&G pays to FERC for generation of their hydros. The formula for how FERC determines these charges is in the CFR. SCE&G is willing to make a contribution annually to the HEP. This contribution will vary yearly as it relates to reservoir fluctuation, which is the project impact that this fund is offsetting. Ray explained that if they pump more and have a higher daily fluctuation, then SCE&G would pay more. Management also had a concern that funds would grow and never get used, so they added in wording that funding would stop until funds have been depleted to a certain amount, and then full contributions would resume. A geographic area in which the funds could be used was also specified. Bill A. said that this area could be expanded to include the sturgeon spawning area downstream of the I-77 Bridge.

Bill M. said that the stakeholders had a few initial comments on this proposal. These are listed below.



- They found the formula to be complicated and suggested using a more simplistic formula that could still take into account generation and pumping. The predictability of the fund contribution each year was questionable.
- The scope of the area targeted by the fund needs more definition and clarity, and needs to include additional areas upstream and downstream of the Project.
- The requirements for eligible projects needs to be refined.
- Stipulations should be added regarding the reduction or stopping of contributions when the fund reaches a certain amount, so that funds can accumulate for a larger project.
- More specifics are needed on how the HEP charter will be developed and how the program will be administered.

The group decided to set this issue aside and the agencies and NGOs will meet in September or October to develop some additional specifics for the program. The relicensing group will then meet again to discuss these specifics.

Pace said he wanted to raise the issue of the reliability of the City of Columbia to continue to fund fish counts at the Columbia Fishway. He said that a lot of projects are tied to the fishway usage numbers, so it is important that the fishway continues to be monitored. He asked if the group thinks these funds could be used to contribute to monitoring at the fishway. Bill A. said that the only way SCE&G would agree to that is if the fishway monitoring is no longer a license requirement of another licensee. If these funds are used to fulfill another licensee's requirements, then SCE&G should expect to be able to use the funds to fulfill their own license requirements. Bill A. said if the license is surrendered, which Pace suggested may be a possibility in the future, then this could be possible. If the license goes away, then the fishway might go away as well.

The group discussed the formula again, and Bill A. said that it is actually fairly simple for SCE&G to calculate. Melanie said her concern is that it is hard to approve projects without knowing how much money will be contributed each year. She suggested that a minimum amount be donated each year. Ray suggested that the HEP group would only approve projects based on the money accumulated in the fund. Gerrit said he thinks there should be a caveat that if the FERC charges go away, or a substantial change occurs, the fund doesn't go away as well. Henry said that if the stakeholders are comfortable with the wording used to establish funds at other FERC projects in the basin, then use that as a framework. Bill A. will take the stakeholder suggestions back to his management before the next meeting.

Blue Trail Maps

Gerrit asked about the in-kind services that the SCE&G proposal details. Bill A. said that SCE&G has a layout and printing shop and when the maps are made, the company might want to do the layout and printing in-house. Gerrit asked how they would develop a budget for this work if they do it in-house. Bill said that if they do the work in-house, then they won't pay the money allotted for this.

Gerrit said that compiling the information that will be on these maps is important and can't be pulled off the shelf. There is a process for identifying this information and in order for this to happen, there needs to be funding. American Rivers doesn't have funds to do this themselves right now and would need SCE&G to contribute in order for this to happen. Bill A. said that SCE&G has an issue paying for American Rivers' time to develop the map. If American Rivers really wants the



map to be developed, SCE&G is okay supporting the map, but not paying for a stakeholder's time to do this. Gerrit asked if SCE&G would be willing to pay a separate consultant to do this work. Bill A. said he would ask his management.

Gerrit said there is a paddling map already developed for upstream of the Project and a separate one for the Enoree River that is being developed by Upstate Forever. He would like to focus on the area below Parr Shoals Dam, and also potentially contribute to printing additional copies of the Upstate Forever maps. Gerrit said they would only develop a new map for the downstream area, which would reduce his original cost estimate, and the extra money would be used for printing the other maps. He will revise his original proposal and send it back to SCE&G.

Bill S. asked if it was a philosophical issue or a liability issue as to why SCE&G was not willing to pay American Rivers to develop the maps. Ray said SCE&G doesn't want to play a role in the development of information. They are okay with paying for design and printing, but that's all. Gerrit said he would try to seek funding for that portion of the project elsewhere, such as trying to obtain a grant from the Richland County Recreation Commission.

Land Protection Agreement

The group discussed the Land Protection Agreement that SCE&G proposed. Dick asked if Best Management Practices (BMPs) are required or just recommended by the Forestry Commission. Corbin said SCE&G goes above and beyond the BMPs recommended by the Forestry Commission, and wording within the proposal can be adjusted to reflect that as needed. Corbin said most of the parcels along the river aren't very large and the riparian BMP buffers don't leave much timber to harvest. Because the bat BMP's would limit the timbering time period to a four month period, SCE&G won't be able to include those restrictions.

The group discussed the 14 parcels requested by SCDNR and SCE&G's proposed considerations. For the parcel in item 1, Bill M. asked if SCE&G is going to bring the whole parcel into the Project boundary, including the area where the sand mine is located. Bill A. said yes, if FERC requires them to cut that piece out, then that's what they will do.

Lorianne said that the language regarding the restrictive covenants needs to be revised. Structures need to be defined, including the type and size of structure. Language also needs to be added about the type of leases allowed on the lands. Henry said that a caveat could be added that if someone wants to buy the land and put it in a conservation easement, this would be allowed. The group agreed that SCE&G should consider this.

Gerrit asked if the document could be revised to explain that there is public access from the river to these lands to allow for passive recreation. Henry asked if these areas should be posted as public access and put on the Blue Trail maps to show people that these are areas that people can take out a boat and rest while paddling. SCE&G will consider this request.

Bill S. asked if there was road access to the parcel listed in item 13. Corbin said there is no public access to this piece of land.



Melanie asked how the other agencies/NGOs feel about this issue being included as an MOU rather than an off-license agreement. Gerrit said an off-license agreement is in the CRSA package submitted to FERC, although not in the license, and an MOU is not submitted to FERC. Dick said either way they will both be enforced under state law. Melanie said she is concerned that having this issue handled in a separate MOU takes something away from the CRSA. Bill A. said that any stakeholders can sign the MOU if they want.

Melanie asked if SCE&G would be willing to pick a few choice pieces of property and put them in a conservation easement, versus including more land with restrictive covenants.

Dick said this is a good start. He would like to see a piece of this proposal address public access, such as parcels listed in items 9 and 10. If SCE&G agreed to set aside 3 to 5 acres for potential public access to put in a canoe or jon boat in the future, it would go a long way. Henry said if this caveat was put in, then this agreement can't go in front of FERC, because they might require recreation development outside of the PBL, extending the PBL, which would not be in SCE&G's best interest.

Bill A. asked if the MOU needs to be drawn up before the FLA is filed. Dick said that their attorney will need to look at the MOU language as early as possible. Henry said we can get a basic agreement pulled together, then do the lawyer stuff later.

Bill A. proposed an additional scenario to the group regarding converting the 387 acres, currently classified as future recreation, next to the Fairfield tailrace to an Operations classification.

Bill A. offered to develop a draft of the questions which the stakeholders want to ask SCE&G regarding the land protection issues discussed at this meeting. He will send this draft to the attendees for their concurrence before approaching the SCE&G Land Department with these new requests.

Northern Long-Eared Bat

Melanie suggested that the RTE Assessment Report be amended to include the Northern Long-Eared Bat (NLEB). Henry stated that SCE&G will create an addendum to the report that includes information on the NLEB, which will be distributed to the stakeholders for review. Information will also be included in the FLA on this species.

Operations Optimization Model

Following the previous CRSA meeting, Gerrit provided some language regarding a possible optimization model to be included in the Downstream Flow Fluctuations AMP. Ray said that what was discussed in the previous meeting was less involved than the language that Gerrit provided. Ray said that SCE&G is not able to commit to that level of scope for the model, however they need to explore the possibility of automating the crest gates at Parr to benefit reduction of year round fluctuations.

Gerrit said at the last meeting, he did bring that issue up and one of the examples he provided is different than the Parr Project because it has a storage reservoir, which Parr doesn't have. However, Gerrit said an optimization model could be the way to go to reduce downstream fluctuations at Parr



because they look at many different variables and they account for the cost of energy and how this would affect operation decisions. Henry said we may not put in all of the wording that Gerrit provided, but we will add in information about developing a model as part of analysis in the future.

HEP Continued

The group circled back around to continue discussion of the HEP. Stakeholders said that the geographic scope should extend up to Neal Shoals and down to the Congaree River confluence with the Wateree River, and include tributaries. Randy said that how far the area extends up the tributaries needs to be defined.

Bill M. said they will continue to think about other possible formulas for calculating the annual contribution. Bill M. added that the formula would need to be sensitive to inflation.

Gerrit said he is speaking for the group when he says that dam removal is a very effective means of habitat enhancement and not allowing any dam removal to be funded by the HEP is a hard line to take. Gerrit said the Broad River Mitigation Fund has dam removal as an option. He said that he is talking about small dams, such as pond dams. Melanie asked if there would be a problem with doing culvert replacement. Bill A. said that he did not discuss that option with management. Gerrit said that language could be added to the plan that says dams would be removed on a voluntary basis, not to include any that are condemned.

Gerrit asked if SCE&G were a part of the HEP Board, would they have veto authority, or would decisions be made as a group? Bill A. said he would leave that up to the development of the charter, but SCE&G would want some say in how the money is spent. The stakeholders will develop this proposal further and provide this information to Bill A. and Ray so they can discuss this with management.

Melanie asked if there would be any incentive if a longer license was issued, such as a bonus for a 50 year license. Bill A. said if the license is longer, then SCE&G is guaranteed to donate money in to the HEP for a longer period of time.

After this discussion, the meeting adjourned. The group did not discuss the CRSA Appendix E, which was an item listed on the agenda. Stakeholders will submit any edits they have on this appendix to Kelly. If needed, this appendix will be discussed at a future meeting. Action items are listed below.

ACTION ITEMS:

- Kleinschmidt will finalize the West Channel AMP and distribute to the group.
- Dick and Bill M. will have Andrew Hook review the WMA flooding and draining proposal and send any edits to SCE&G.
- Agencies and NGO's will meet in September or October to review the HEP proposal Bill A. will take the stakeholder suggestions back to his management before the next meeting.
- Gerrit will revise his original proposal on the Blue Trail maps and send it back to SCE&G.
- Bill A will develop a list of questions from the stakeholders regarding the land protection issues for their concurrence before approaching the SCE&G Land Department.



• Kleinschmidt will develop an addendum to the RTE Assessment Report to include the NLEB and will distribute to the stakeholders for review. • Kleinschmidt will revise the Downstream Flow Fluctuations AMP to include some wording about the future development of an optimization model. • Stakeholders will review the revised CRSA and Appendix E and submit any edits they have to Kelly.

Proposed SCE&G-SCDNR Agreements Parr Hydroelectric Project

August 17, 2017

The following is proposed language to be considered for agreements between South Carolina Electric & Gas Company (SCE&G) and South Carolina Department of Natural Resources (SCDNR) to address: 1) flooding and draining at Broad River Waterfowl Management Area, and 2) marking of boating hazards at Monticello Reservoir of the Parr Hydro Project.

1) Flooding and draining the Broad River Waterfowl Management Area

SCE&G will cooperate, to the best of its ability, to assist SCDNR in the flooding and draining of the Broad River Waterfowl Management Area (BRWMA). A communications protocol will be developed to determine appropriate contact personnel and will be updated on an annual basis. Since many new operating constraints have been placed on SCE&G through the relicensing process, these DNR requested elevations may be provided in blocks as short as a few hours a day during the time period requested for managing this impoundment. SCE&G will attempt to support this request unless inflow conditions or operational constraints due to implementation of the new license requirements do not allow for the reservoir to achieve the requested elevations. Reservoir levels required by or resulting from compliance with license requirements, or implementation of protection, mitigation, and enhancement measures contained in Adaptive Management Plans implemented under the license, will take precedence over the waterfowl flooding and draining of the BRWMA as described herein.

Flooding - SCDNR needs to have the impoundments flooded by mid-November of each year. Flooding is expected to require about 48 - 72 hours if Parr Reservoir is at a 262 ft surface elevation or higher. Between mid-October and mid-November of each year, SCE&G will attempt to manage Parr Reservoir to maintain or exceed a surface water elevation of 262 ft for as long of a continuous period as possible (up to 72 hours), but may provide the requested elevations for shorter periods over several days. At the beginning of October, DNR personnel responsible for the BRWMA flooding will contact the SCE&G representative and provide a time period of when DNR will be ready to start flooding the BRWMA. The SCE&G representative will coordinate with the DNR representative to provide times when Parr Reservoir will be above 262 ft elevation. SCDNR will notify SCE&G when the impoundments have been flooded.

Draining - SCDNR needs to have the impoundments drained by early March each year. Draining is expected to require at approximately 72 hours if Parr Reservoir is at a 258 ft surface elevation or lower. Since this will be very difficult to achieve at this time of year, SCE&G will attempt to manage Parr Reservoir at a surface elevation of 262 feet or lower, for as long of a continuous period as possible (up to 72 hours), but may provide the requested elevations for shorter periods over several days. At the beginning of February, DNR personnel responsible for the BRWMA draining will contact the SCE&G representative and provide a time period of when DNR will be ready to start draining the BRWMA. The SCE&G representative will coordinate with the DNR representative to provide times when Parr Reservoir will be below 262 ft elevation. SCDNR will notify SCE&G when the impoundments have been drained.

This MOU will be effective for the term of the new FERC license unless terminated by SCDNR. It can be modified by the mutual consent of both parties.

2) Marking of boating hazards in Monticello Reservoir

SCE&G shall cooperate with the SCDNR in the marking of hazardous areas for navigation within Monticello Reservoir. All markings shall be consistent with the Uniform State Marking System. The costs of all materials (up to a maximum of \$10,000 during each consecutive 5 year period of the license term) used in the marking process at these two reservoirs shall be borne by SCE&G if the funding for such materials is not available to DNR through state or federal programs.

SCE&G Counter Proposal for Habitat Enhancement Program Parr Hydroelectric Project – Relicensing

August 25, 2017

Proposed Funding Formula for SCDNR Habitat Enhancement Program

SCDNR has requested that SCE&G provide annual funding to a Habitat Enhancement Program (HEP) to mitigate unavoidable impacts related to Parr Reservoir fluctuations due to pumped storage operations at the Fairfield Development. SCE&G is proposing a funding formula based on FERC's calculation of annual administrative charges, which for a mixed conventional and pumped storage project includes a deduction based on pumping energy expended during each Federal fiscal year.

SCE&G is proposing to make an annual contribution to the HEP equal to the amount deducted from the FERC and other federal agency administrative charges for pumping energy expended, after subtracting 10.6 percent for the cost of Transmission and Distribution (T&D)¹ of the power to Fairfield. Since the fluctuation of Parr Reservoir (and associated unavoidable impacts) during a given year correlates strongly with the amount of pumped storage operation that year, the annual HEP contribution will be greater in years with more pumped storage operation, and smaller in years with less pumped storage operation.

Per 18 CFR 11.1.C.3.iii,

"For a mixed conventional-pumped storage project the charge factor is its authorized installed capacity plus 112.5 times its gross annual energy output in millions of kilowatt-hours less 75 times the annual energy used for pumped storage pumping in millions of kilowatt-hours."

SCE&G submits annual generation statements to FERC by November 1 of each year, showing generation and pumping energy for the period October 1 of the previous year through September 30 of the current year (the Federal fiscal year). FERC sends an invoice in July of the following year, with payment due by early September of that year. Note the multipliers given in the CFR are equivalent to 11.25 percent of gross energy output in MWH, and 7.5 percent of pumping energy in MWH. FERC also provides Unit Charge Factors each year for its own and other Federal agencies' estimated administrative charges. These factors are multiplied by the charge factor computed as described in the CFR to compute the total charges payable by the licensee. An adjustment is added or deducted by FERC each year to correct for the difference between the estimated administrative charges paid by the Licensee the previous year and the actual administrative charges incurred by the FERC during that year.

For the Parr Hydroelectric Project, the authorized installed capacity is 526,080 KW. For an example year (2012) in which annual energy output was 658,613 MWH and annual energy expended for pumping was 848,474, the charge factor would be computed as follows:

Charge Factor =
$$526,080 + (0.1125 * 658,613 - 0.075 * 848,474)$$

= $526,080 + 74,094 - 63,636$
= $536,538$

The deduction from the charge factor for pumping energy expended is 63,636 in this example. For the example year, the FERC provided unit charge factors of 1.546980 for FERC administrative charges, and

1

¹ Based SCE&G General Service Class Rates 23 & 24 T&D percentage.

0.162896 for Other Federal Agencies (OFA) charges. Multiplying the pumping energy deduction charge factor by the sum of these two unit charge factors gives the dollar amount deducted from the FERC annual charges for pumping energy expended, and subtracting the 10.6% T&D cost gives the HEP contribution:

63,636 * (1.546980 + 0.162896) = \$108,809 <u>Less T&D Cost @ 10.6%: (\$11,534)</u> Habitat Enhancement Funding: \$97,275

SCE&G proposes to make the HEP contribution during the fourth quarter of the same calendar year in which the annual charges are paid.

Table 1 below shows the above computation using the generation and pumping energy over the last 14 Federal fiscal years:

Fiscal	Pumping	Charge	FERC Unit	Other	Annual	HEP	Parr Reservoir
Year	Energy	Factor	Charge	Federal	Charges	Contribution	Average Daily
Annual	(MWH,	from 18	Factor	Agencies	Deduction for	Net of	Fluctuation
Charges	previous	CFR		Charge	Pumping	Transmission &	(feet, previous
Paid	FY)			Factor	Energy	Distribution	FY/WY)
					Expended	Cost (10.6%)	
2004	1,082,358	81,177	1.427823	N/A ²	\$115,906	\$103,620	5.20
2005	1,241,915	93,144	1.540103	N/A	\$143,451	\$128,245	5.73
2006	1,220,472	91,535	1.248321	0.133254	\$126,463	\$113,058	5.61
2007	1,201,038	90,078	1.153142	0.203692	\$122,221	\$109,265	5.77
2008	1,112,467	83,435	1.322620	0.208375	\$127,739	\$114,198	5.57
2009	1,121,484	84,111	1.455633	0.233334	\$142,061	\$127,003	5.41
2010	992,379	74,428	1.449217	0.199028	\$122,676	\$109,673	4.59
2011	833,344	62,501	1.508011	0.161098	\$104,321	\$93,263	4.28
2012	848,474	63,636	1.546980	0.162896	\$108,809	\$97,275	4.33
2013	859,564	64,467	1.500914	0.149766	\$106,415	\$95,135	4.19
2014	625,794	49,935	1.402684	0.104162	\$70,723	\$63,226	3.25
2015	538,546	40,391	1.490838	0.088588	\$63,795	\$57,032	2.85
2016	700,422	52,532	1.566760	0.099777	\$87,546	\$78,266	3.69
2017	706,813	53,011	1.714956	0.096266	\$96,015	\$85,837	3.49

Table 1.

Figure 1 below shows the strong correlation over this same time period between pumping energy and average daily Parr Reservoir fluctuation.

² FERC did not provide a unit charge factor for other federal agencies in FY2004 or FY2005.

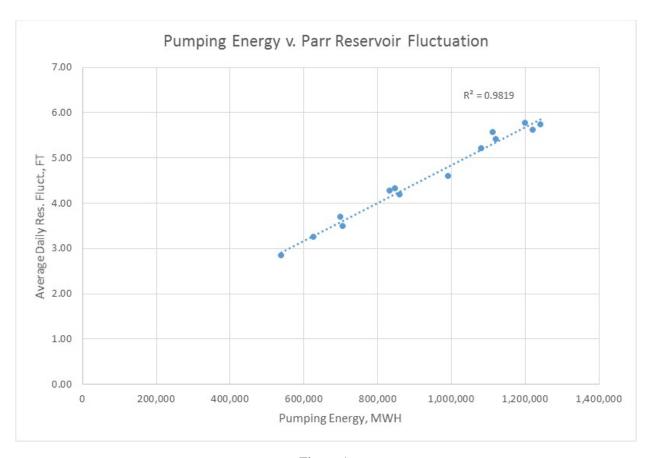


Figure 1.

Within two years after FERC issuance of a new Parr Hydroelectric Project license, SCE&G and the other signatories to the Settlement Agreement shall develop a charter for administering and deciding how to spend the funds in the HEP. Funding may be held and administered by SCE&G, SCDNR, or third party organizations such as State Mitigation Trust Fund, Central Carolina Community Foundation, or other options that might be available at that time.

The types of projects eligible for funding will include: conservation of lands by fee simple acquisition or easements; restoration and enhancement of stream channels, stream banks, riparian areas, shorelines, and wetlands;; creation or construction of habitats and nesting boxes to support fish and wildlife species; fertilizing and aquatic plant control in the Monticello sub-impoundment; conducting research and monitoring to support restoration of migratory fishes; developing low-impact facilities to access waterways for fishing and boating. The location of projects eligible for funding must be within the Parr Hydro Project boundary, the Broad River downstream of the Project and Congaree River from the Broad and Saluda rivers confluence to the I-77 Bridge.

If the funds held in the HEP account reach \$500,000, SCE&G will reduce the annual funding amount by 50 percent until the funds have been depleted through eligible project funding to \$400,000, at which time full contributions will resume during the fourth quarter of the following year. If the funds held in the HEP account reach \$750,000, SCE&G will stop annual contributions until the funds have been depleted through eligible project funding to \$400,000, at which time full contributions will resume during the fourth quarter of the following year.

SCE&G Counter Proposal for Blue Trail Recreation Maps Parr Hydroelectric Project – Relicensing

August 23, 2017

American Rivers offered to lead the development of recreation maps for non-motorized boaters similar to those completed for the Congaree, Wateree and Ashely rivers Blue Trails. Two recreation maps will be developed, one for the Broad River downstream of the Parr Shoals Dam to the Congaree River and a second that will include the Broad River from the Neal Shoals Dam to the Parr Shoals Dam and the Enoree River from Parr Reservoir to a yet to be determined upstream location. This work will include (1) convening settlement signatories, regulatory agencies, recreation users and outfitters to identify and compile information on recreation access points and key features, (2) map design and layout, and (3) printing 2,500 waterproof, color copies of each map. An estimated budget provided by American Rivers in 2017 dollars is:

- Identify and compile information \$7,500
- Design and layout \$4,000
- Printing \$7,500
- Total \$19,000

As part of a Parr Hydro off-license agreement, SCE&G proposes to support this American Rivers program as follows:

American Rivers agrees to identify and compile the information it wants for the Blue Trail Recreation Maps for the Broad River from Neal Shoals Dam to the Congaree River. SCE&G will then assist with the design, layout and printing of up to 2,500 waterproof, color copies of each map by providing a onetime funding amount of \$11,500. SCE&G may provide in kind services in lieu of funding for the design, layout and printing of these maps.

SCE&G Counter Proposal for Protection of Lands Parr Hydroelectric Project – Relicensing

August 22, 2017

As part of a total PM&E package, SCDNR recommends significant land protection measures to provide for habitat conservation. In previous communications, SCDNR identified SCE&Gowned lands contiguous with the Project and adjacent to the Broad River downstream of the Project, and these included 14 parcels that total approximately 1900 acres (based on county landownership data from the Internet). Six of the 14 parcels are contiguous with the Project boundary, and eight are adjacent to the Broad River downstream of the Project. Protection of these properties would provide the benefits of conserving woodland habitat as well as buffering and enhancing shoreline and recreation areas at the Project and riparian and riverine habitats on the Broad River.

In response to this land protection request by SCDNR, SCE&G proposes to offer an off-license agreement as part of the relicensing process to protect the properties as described below for the term of the new license. Options to establish land protection for the license term include: 1) an off-license agreement to limit uses and sale of parcels, 2) bring parcels into the Project boundary, 3) place parcels in the SCDNR Wildlife Management Area Program. SCE&G will continue to manage timber in compliance with Best Management Practices outlined by the South Carolina Forestry Commission, including streamside management zones which protect areas adjacent to perennial, intermittent, and ephemeral streams.

Suggested language¹ to include within an off-license agreement as part of the relicensing process to limit uses and sale of parcels is as follows:

Within a year after FERC issuance of a new Parr Hydroelectric Project license, SCE&G shall retain the properties as described below for the term of the new license and restrict its use during the new license term. Certain properties will be placed into the WMA program, while other properties will have restrictive covenants with a non-development clause placed on them. SCE&G will retain all existing timber rights, and will continue to manage forestry uses according to the Best Management Practices required by the South Carolina Forestry Commission, including streamside management zones which protect areas adjacent to perennial, intermittent, and ephemeral streams. SCE&G also reserves the rights for uses related to utility services. This agreement can be modified by mutual consent of both parties.

The 14 parcels requested by SCDNR and the SCE&G proposed considerations are listed below, (parcels maps are provided in Attachment):

1

¹ The language used in this document is for discussion purposes, and is not intended to be a legally binding agreement. It is anticipated that a formal agreement regarding protection of the properties described in this document will be created at a later date.

- 1) 18 acres near Highway 34 at Broad River in Fairfield County SCE&G is already planning to bring this property into the Project boundary as part of the proposed Highway 34 Recreation Site. It will have protection afforded by the FERC license.
- 2) 113 acres at Broad River WMA in Fairfield County –SCE&G is willing to allow this property to be enrolled in the WMA program.
- 3) 24 acres near Broad River WMA in Fairfield County SCE&G is willing to allow this property to be enrolled in the WMA program.
- 4) 539 acres between Parr and Monticello reservoirs in Fairfield County SCE&G proposes to place restrictive covenants with a non-development clause on this property, with reservation of uses related to utility services to SCE&G, and a provision that SCE&G may erect up to 2 structures on the property.
- 5) 340 acres on Monticello Reservoir in Fairfield County This parcel is next to the Fairfield dams and provides a security buffer to Project structures. *SCE&G does not propose placing any restrictions on this property.*
- 6) 67 acres at Parr Reservoir in Newberry County –SCE&G proposes to place restrictive covenants with a non-development clause on this property, with reservation of uses related to utility services to SCE&G, and a provision that SCE&G may erect up to 2 structures on the property.
- 7) 83 acres on Broad River near Haltiwanger Island in Fairfield County There is no public access to this property. SCE&G proposes to place restrictive covenants with a non-development clause on this property, with reservation of uses related to utility services to SCE&G, and a provision that SCE&G may erect up to 2 structures on the property.
- 8) 225 acres on Broad River near Huffman Island in Fairfield County –There is no public access to this property. SCE&G proposes to place restrictive covenants with a non-development clause on this property, with reservation of uses related to utility services to SCE&G, and a provision that SCE&G may erect up to 2 structures on the property.
- 9) 72 acres on Broad River upstream of Haltiwanger Island in Richland County *SCE&G does not propose placing any restrictions on this property.*
- 10) 128 acres on Broad River at Haltiwanger Island in Richland County *SCE&G does not propose placing any restrictions on the mainland portion of this property*, however SCE&G would agree to place restrictive covenants with a non-development clause on that portion of the property located on the northwestern end of Haltiwanger Island as shown on the revised map (5.4 acres). There is no public access to this property.
- 11) 11 acres near Broad River and Haltiwanger Island in Richland County *SCE&G does not propose placing any restrictions on this property.*

- 12) 150 acres on Broad River including Huffman Island in Richland County SCE&G is willing to place restrictive covenants with a non-development clause on the northern approximately 92 acres of this property as shown on the revised map, with an allowance that back property owners could install a 10 foot wide meandering path to allow access to the Broad River, and with reservation of uses related to utility services to SCE&G, and a provision that SCE&G may erect up to 2 structures on the property. There is no public access to this property. SCE&G does not propose placing any restrictions on the southern approximately 58 acres located mostly southeast of Huffman Island in Richland County.
- 13) 90 acres, on Broad River downstream of Huffman Island in Richland County *SCE&G does not propose placing any restrictions on this property.*
- 14) 60 acres, on Broad River at Boatwright Island in Richland County This land is critical to SCE&G for disposal of tree trimming mulch by Distribution and Transmission operations. SCE&G does not propose placing any restrictions on this property.

MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

November 7, 2017

Final KMK 12-01-17

ATTENDEES:

Bill Argentieri (SCE&G) Dick Christie (SCDNR) Ray Ammarell (SCE&G) Bill Marshall (SCDNR) Beth Trump (SCE&G) Ron Ahle (SCDNR) Caleb Gaston (SCE&G) Keith Whalen (USFS) Brandon Stutts (SCE&G) Bill Stangler (Congaree Riverkeeper) Melanie Olds (USFWS) via conf. call Henry Mealing (Kleinschmidt) via conf. call Fritz Rohde (NOAA) via conf. call Alison Jakupca (Kleinschmidt) via conf. call Rusty Wenerick (SCDHEC) Kelly Kirven (Kleinschmidt)

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

Ray opened the meeting with a safety moment. The purpose of this meeting was to continue discussion of the Comprehensive Relicensing Settlement Agreement (CRSA), associated appendices, and individual agreements and plans.

Mussel Genetics Update

Henry updated the group on the status of the mussel genetics testing. Henry said that Tim Savidge, with Three Oaks Engineering, emailed him with the unofficial results of the testing. Three different mussel species were collected in the Monticello Reservoir, including the Eastern creekshell (*Villosa delumbis*), the Carolina creekshell (*Villosa vaughaniana*), and the Eastern lampmussel (*Lampsilis radiata*). The lab is still working to verify all of the samples and will send a summary report once analysis is final. Henry will share the final report when it's ready. He also said that the Mussel Monitoring Plan will be revised to include sampling in Monticello Reservoir. Kleinschmidt will revise the plan and send it out to stakeholders. After the meeting Melanie suggested that Monticello sampling be performed on the same cycle as the Parr Dam Tailrace area, so that both areas would be sampled in the same year.

Parr Generator Upgrade/Replacement Implementation Plan

Prior to the meeting, the draft Parr Generator Upgrade/Replacement Implementation Plan was distributed to stakeholders for review. During the meeting, Ray summarized the plan and explained that SCE&G was evaluating two different options, including upgrading the existing generators or replacing them with new ones. Their preferred option is to replace the generators, but they are still examining the feasibility of this. Both options will result in increased hydraulic capacity and



increased generating capacity. Bill S. asked how long it takes to install a new generator. Ray said that it's his understanding that it takes approximately 6-9 months to install one, including removing the old equipment.

Navigational Flow Observations

On October 17, 2107, SCE&G and some stakeholders viewed navigation flows downstream of Parr Shoals Dam, specifically in the west channel area; IFIM study sites 3, 4, 5, 6, and 7; and the "navigation ledge" at transect 7. Gerrit Jobsis, with American Rivers, emailed the relicensing group following the site visit and noted that the 1,000 cfs flow was satisfactory for aquatic habitat but that he does not believe that the 1,000 cfs minimum flow meets SCDNR's navigation policy. Kleinschmidt developed a flow exceedance table that shows monthly flow exceedance for the Broad River downstream of Parr Shoals Dam for flows from 500-5,000 cfs. Henry said that the minimum flow was set with fish habitat in mind and that the downstream area will see flows higher than the set minimum flow depending on inflow. Bill M. said that SCDNR agrees with Gerrit that the 1,000 cfs flow does not meet the state's navigation criteria. However, Bill M. said that the river is navigable, even though the criteria aren't completely met. He said that someone in a Jon boat would need to be careful, but navigation with canoes and kayaks would be easier. He said that the state's criteria, developed by Steve deKozlowski, are limited in their testing and are meant to be a guideline. In this case, it comes down to a practical application of the guidelines based on what the system can provide, and at that ledge it appeared that even 2,000 cfs might not meet the state's criteria. Bill M. said that he is comfortable saying that a 1,000 cfs flow is adequate for navigation for kayaks and canoes. Since the project is run-of-river, the flow duration curves indicate that most of the time flows will be there for navigation, and other times, dry times, they might not be high enough for navigation. Ray said that having a higher minimum flow and not a daily average will be helpful for navigation.

Bill S. said that he believes it's important to state that the flow doesn't meet the navigation criteria, but he is comfortable with a minimum flow of 1,000 cfs. Henry said that the Navigation Flow Report will be revised to say that while the 1,000 cfs flow doesn't meet the state's navigation criteria, it does provide navigation paths that most boaters could use. He also said that language indicating a 500-700 cfs flow provides navigation will be removed from the report. The monthly flow exceedance table will also be added.

Fish Entrainment Reduction PME

Henry said that the Fairfield Hydroacoustic Survey Report was distributed to stakeholders prior to the meeting. The study found that in the Fairfield forebay, the lights don't appear to concentrate fish in the intake area. Inside the nuclear exclusion zone, many large fish were observed, indicating that this area could be serving as a refuge area. In the tailrace, however, there are lots of lights that attracted large schools of threadfin shad. When the lights were turned off, the schools of fish dispersed and moved downstream out of the intake area. The report indicates that reducing the lights in the tailrace should result in reductions of fish entrainment in the area. The report will be revised to include a recommendation section to say that lights in the Fairfield Pumped Storage tailrace will be turned off under normal conditions. However, the lights will be turned back on during periods of "elevated threat" as determined by Homeland Security or other law enforcement agency. Stakeholders agreed with this report change and PME measure.



Land Agreement Memorandum of Understanding (MOU)

Prior to the meeting, stakeholders submitted questions to SCE&G regarding the August 22, 2017 SCE&G Counter Proposal of Protection of Lands document. SCE&G responded to those questions in a document dated October 24, 2017. The group discussed the questions and answers. Dick asked if the SCE&G Land Department understood that the lands are part of the settlement agreement, although they are not tied to the project. Bill A. said yes, they do understand that.

Bill M. said that, regarding question #1, stakeholders would like an understanding of the type of structures that can be built on the properties. Ray asked if a square footage limitation would be okay. They don't specifically want to restrict the type of structure, but they will restrict the size. Dick asked if there was a draft of the restrictive covenants yet. Bill A. said no, he hasn't developed a draft yet. Dick asked who would enforce the covenants if SCE&G sells the properties. How do you get permanent restrictive covenants without a third party involved? Bill M. said maybe in this situation it might be among the parties to enforce. Bill A. said he would look into the enforcement question. If the properties were put into a conservation easement, could SCDNR take the easement? Dick said that the lands on the Broad River are so important, SCDNR might be willing to take the conservation easement. However, restrictive covenants are the only option being offered by the SCE&G Land Department at this point.

Dick asked what a non-development clause means. It appears that structures are allowed in a restrictive covenant with a non-development clause. Dick said SCDNR needs to understand the vision of these properties, as their intent is to limit development on these parcels. Dick suggested that the wording be changed from non-development clause to limited-development clause.

SCE&G proposed to provide permanent restrictive covenants on the properties, lasting beyond the license term and project existence. Beth asked if conservation easements were considered. She said that SCE&G wouldn't get any tax benefit and conservation easements are expensive, but they would be enforceable and not impair land values any more than a restrictive covenant would. Bill A. said that the land department didn't want to propose conservation easements.

Bill A. said that it seems to be time to begin drafting something up that the attorneys can review. The MOU also needs to include the two properties brought into the Wildlife Management Area. Bill A. said he would like to get the MOU finished before the license application and settlement agreement are filed with FERC.

Habitat Enhancement Program

Prior to the meeting, SCE&G provided the stakeholders with a revised Habitat Enhancement Program Agreement, dated October 24, 2017. Bill A. said that SCE&G is going to stick with the formula they originally proposed. After the meeting, Melanie suggested that SCE&G add an equation with variables prior to the formula example. Ray said he would make that edit.

Bill A. said that they revised the minimum annual contribution suggested by stakeholders to \$50k in the year license is issued, with the figure adjusted each year according to previous five year average of the Producer Price Index (PPI). Dick asked if the PPI that they are using is the electricity PPI. Bill A. said he would look into this.



Bill A. said that wording on the types of projects eligible for funding was changed. Specifically, wording was added to include eligibility of projects that remove barriers to aquatic species, including voluntary aquatic habitat enhancements that are not compliance related activities such as FERC license or other regulatory agency requirements. Bill S. said that this wording satisfied his concerns. Keith said he could see the USFS approaching SCE&G to get money to help on their lands, however, it wouldn't be in a compliance format. He said often times a county wants to make improvements, but doesn't have enough money, so a program like this that could supplement their funds is great. Rusty said that sometimes an owner of a DHEC regulated dam is required to repair or remove the dam for safety reasons. Would this situation apply? Bill S. said that the state has a mechanism to remove dams that are a public safety hazard and will recover costs however they can. This program could then potentially fund stream restoration after the compliance issues are resolved.

Fritz asked about the requirement for a three quarters majority vote. Bill A. said that the Proposal Review Committee will have at least five members, so at least 4 out of 5 members must agree.

Bill A. asked if anyone had any objections to try and meet in 2019 to begin assembling the charter. Everyone agreed to that.

CRSA Document and Appendices

The group reviewed the CRSA Appendix A. Kelly said that this appendix was revised to include the final list of on-license PM&Es. She said that the Mussel Monitoring Plan, the Recreation Management Plan, and the Entrainment Plan will all be revised.

The group then reviewed the CRSA Appendix B. Kelly asked if the group preferred to include a list of items in the appendix referring to separate documents (similar to the structure of Appendix A), or if the information for each item should be included directly in the appendix. The information for each item is relatively brief, so the group agreed to include information directly in the appendix. Some of the write-ups will be revised so that they make sense in their new format.

Kelly asked if the WMA lands leased by SCDNR should be included in the MOU. Bill A. said yes, the WMA lands will be included with the other land agreements in the MOU.

The group reviewed the CRSA document and the reference to the WMA lands was removed. Wording was also revised to say that if a signatory believes project operations have been changed, they can request a meeting of the CRSA parties to discuss potential revisions to relevant plans. Kelly will also cross check the definitions and acronyms lists with those included in the individual plans to make sure they all match up.

Kleinschmidt will put the final versions of all documents relevant to the CRSA on a CD for the agencies to distribute to their lawyers for review.

Kleinschmidt will also revise the CRSA Appendix E with draft license articles and send out to stakeholders for review, prior to the next meeting.

Action items from this meeting are included below.



ACTION ITEMS:

- Kleinschmidt will revise the Mussel Monitoring Plan to include sampling in Monticello Reservoir.
- Kleinschmidt will revise the Navigation Flow Report according to the following: (1) add language to say that while the 1,000 cfs flow doesn't meet the state's navigation criteria, it does provide navigation paths that most boaters could use; (2) remove language indicating a 500-700 cfs flow provides navigation; (3) add the monthly flow exceedance table.
- Kleinschmidt will revise the entrainment report by adding a recommendations section.
- Bill A. will follow up who will enforce the restrictive covenants if SCE&G sells the land agreement property.
- Bill A. will begin drafting up the Land Agreement MOU.
- Ray A will revise HEP Fund document to include an equation with variables to the formula and explanation of each component.
- Bill A. will look into which PPI will be used in the HEP fund formula. The HEP document will be revised and sent back out to stakeholders.
- Kelly will revise the CRSA document, Appendix B, and Appendix E and sent out to stakeholders.
- Kleinschmidt will put together CDs with CRSA documents for agency to submit to their lawyers for review.
- Kleinschmidt will compare CRSA definitions and acronyms to words in each AMP/MP.
- Kleinschmidt will revise license articles in CRSA Exhibit E and re-send to stakeholders



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting

November 30, 2017

Final KMK 01-05-17

ATTENDEES:

Bill Argentieri (SCE&G)
Ray Ammarell (SCE&G)
Beth Trump (SCE&G)
Caleb Gaston (SCE&G)
Randy Mahan (SCE&G)
Pace Wilber (NOAA) via conf. call
Rusty Wenerick (SCDHEC)

Dick Christie (SCDNR)
Bill Marshall (SCDNR)
Gerrit Jobsis (American Rivers)
Bill Stangler (Congaree Riverkeeper)
Henry Mealing (Kleinschmidt)
Kelly Kirven (Kleinschmidt)

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

Bill A. opened the meeting with a safety moment and introductions. The purpose of this meeting was to continue discussion of the various components of the Comprehensive Relicensing Settlement Agreement (CRSA).

Freshwater Mussel Monitoring Plan

Henry told the group that revisions were made to the Freshwater Mussel Monitoring Plan to include monitoring in Monticello Reservoir due to the presence of the Carolina creekshell mussel. Prior to the meeting, SCE&G spoke with Melanie Olds with USFWS and she indicated that she was in agreement with the changes made. The stakeholders attending the meeting also agreed with the changes. Henry said this document will be finalized and refiled on the Project website.

Turbine Venting Memo #2

Henry summarized the data included in the Turbine Venting Memo #2. There were some periodic excursions of dissolved oxygen (DO) levels less than the state standard of 4.0 mg/L during the 2017 turbine venting season, however DO was primarily recorded above the state standard. Henry told the group that during the study period, fouling affected the accuracy of the DO readings from the USGS Jenkinsville gage. SCE&G notified the USGS of the situation and the data was corrected.

Henry said that SCE&G will continue to collect DO data in 2018. He said that, once implemented, the new minimum flow will hopefully help increase DO levels in the Parr tailrace. Dick asked if SCE&G has considered any other options to help increase DO if it continues to be low and the turbine venting doesn't appear to help. Henry said no thought has been put into that since the DO levels were fine in 2016. Dick said the group can continue to watch the DO levels in the tailrace



with the implementation of the Turbine Venting Plan and determine if anything needs to be done during the new license term. Henry added that SCDHEC may require action through the 401 water quality certification.

Bill A. told the group that SCE&G is planning to change out the bearings on the units, which may help pull more air in during generation. A schedule has not yet been determined for this maintenance. Bill A. noted that after these changes have been made, it might be good to do another test to determine if some units vent better than others. The Turbine Venting Plan can then be revised based on the results of that test.

Gerrit said that he noticed at other projects when generation is low, water appears to be pulled from one area of the water column, causing low DO downstream. Dick said that there doesn't appear to be a consistent pattern between DO and Project operations in the data provided in the memo. Caleb said that he thinks there is a diurnal affect, and since there is more vegetation in the tailrace area than there used to be, this may start a trend in the coming years. Henry said they will try to collect more data in 2018, especially when DO is low.

Bill M. asked if the USGS probe was still located in an eddy and Caleb answered yes. However, Caleb added that there does appear to be a good bit of current passing by the probe, so the location of the probe is likely fine. Rusty said that he thinks the USGS meter located above Parr Reservoir at Carlisle has consistently higher DO levels than the one at Jenkinsville. He said this makes him question where this low DO is coming from and what would the DO be if the Project weren't there. Bill A. added that the Carlisle gage is 21 miles upstream and there are a lot of other influences (including the Tyger and Enoree Rivers) in that span. Rusty said that this conversation would be different if there wasn't one of the best mussel communities in the state located immediately downstream of the Project.

Navigation Flow Demonstration and Navigation Report

After the Navigation Flow Demonstration on November 9, 2017, Henry provided stakeholders with a recap of the trip via an email. Bill M. agreed with Henry's assessment of the trip. While a flow of 1,000 cfs appeared to be a good aquatic flow, it didn't provide a good navigation passage for a Jon boat. While some passage is possible, this flow does not meet the state recommendation. Ray noted that this condition would prevail even if the Project were not there because of normal river flows.

The group then reviewed the edits made to the Navigation Report. Bill M. said that for future reference, it would be good to include an explanation as to why the modeling presented in the report didn't clearly show that navigation at the 1,000 cfs flow would be difficult. Henry said that the analysis did not include the leading edge of the shoal. Gerrit agreed with Bill M. that a sentence should be added that explained that the modeling method used (straight line approach) didn't accurately capture the intent of the SCDNR policy or actual field conditions. Bill M. stated that he would send recommended wording to Kelly for inclusion.

Caleb noted that during the flow demonstration trip, one population of the Rocky Shoals Spider Lily had fresh blooms on it. Caleb will send some photos he collected during the flow demonstration. Henry said that the revised Navigation Report will be repackaged with the Recreation Flow Memo and the package will be refiled on the website.



Hydroacoustic Survey with PME Recommendation

Henry reviewed the addition made to the Hydroacoustic Survey Report regarding the PME recommendation of turning lights off in the Fairfield tailrace under normal operating conditions. The group approved this revision.

CRSA Appendix A

Kelly reviewed the changes made to the CRSA Appendix A. Everyone agreed to these changes.

CRSA Appendix B

Kelly reviewed the changes made to the CRSA Appendix B. Bill A. noted that SCE&G was able to keep the Parr Reservoir water level up this year to aid in the filling of the Broad River Waterfowl Management Area (WMA) impoundments because they still have the lower minimum flow requirement. When the new license requirements take effect, this may not be possible. Bill A. also noted that it appears to be taking longer than the estimated 48-72 hours to fill the impoundments, so wording may need to be changed before this agreement is finalized.

The group reviewed the new Appendix B-1 attachment that coincides with the agreement to lease property to SCDNR for inclusion in the WMA program. Bill M. noted that the map included in Appendix B-1 does not show the entire parcel that SCDNR leases. Beth T. will confirm this with the SCE&G Land Department. Bill A. said he will revise the map to include the area where the SCDNR sheds are located as long as the SCE&G Land Department agrees.

CRSA Appendix E

Kelly reviewed the changes made to the CRSA Appendix E. The group discussed the similarity in the names of the Monticello Reservoir Habitat Enhancement Plan and the Habitat Enhancement Program (HEP). Everyone agreed to change the name of the Monticello Reservoir Habitat Enhancement Plan to the "Monticello Reservoir Fisheries Habitat Enhancement Plan" to provide more clarity.

The group also agreed to remove the "DATE" placeholders from the proposed articles.

Kelly will put together a CD with the CRSA, appendices, and associated documents for stakeholders to give to their attorneys for review. Areas in the plans that still need to be finalized will be highlighted.

The meeting was adjourned. Action items are listed below.

ACTION ITEMS:

• Kleinschmidt will finalize the Mussel Monitoring Plan and refile on the Project website.



- The Navigation Report will be finalized and repackaged with the Recreation Flow Memo and refiled on the Project website.
- Bill M. will provide suggested wording for the navigation modeling analysis.
- Kelly will revise the Appendix E based on meeting discussions. The new title of the Monticello Reservoir Fisheries Habitat Enhancement Plan will be carried over into applicable documents.
- Beth T. will confirm SCE&G Land Department agrees to changing map in Appendix B-1.
- Bill A. will revise the Appendix B-1 map and resend to stakeholders as agreed to by SCE&G Land Department.
- Caleb will send to the group photos of RSSL taken during the flow demonstration trip.
- Kleinschmidt will put together CDs with CRSA documents for agency to submit to their lawyers for review. Issues that still need to be finalized will be highlighted.



MEETING NOTES

SOUTH CAROLINA ELECTRIC & GAS COMPANY Joint RCG Meeting – CRSA Meeting 6

May 8, 2018

Final KMK 6-5-18

ATTENDEES:

Bill Argentieri (SCE&G)

Jeff Carter

Billy Chastain (SCE&G)

Beth Trump (SCE&G)

Brandon Stutts (SCE&G)

John Fantry (Town of Winnsboro)

Gerrit Jobsis (American Rivers)

Bill Stangler (Congaree Riverkeeper)

Caleb Gaston (SCE&G)Elizabeth Johnson (SCDAH)Randy Mahan (SCE&G)Rusty Wenerick (SCDHEC)Hagood Hamilton (SCE&G)Bill Marshall (SCDNR)

Melanie Olds (USFWS)

Fritz Rohde (NOAA) via conf. call

Henry Mealing (Kleinschmidt)

Alison Jakupca (Kleinschmidt)

Pace Wilber (NOAA) via conf. call

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

The purpose of this meeting was to review the draft Comprehensive Relicensing Settlement Agreement (CRSA) and associated appendices with the ultimate goal of signing the CRSA prior to the filing of the Final License Application (FLA) with the Federal Energy Regulatory Commission (FERC) at the end of June 2018. If the CRSA signatories are not able to meet the June FLA submittal deadline, then the FLA may be filed without the CRSA and the CRSA may be submitted to the FERC at a later date.

The following documents were reviewed and edited during the meeting:

- CRSA Settlement Agreement Main Document
- CRSA Appendix A Proposed License Conditions
- CRSA Appendix B Content of Off-License Agreements
- CRSA Appendix B-1
- CRSA Appendix E Proposed License Articles
- HEP Fund Proposal
- Parr West Channel AMP
- Parr Downstream Flow Fluctuation AMP
- Parr Minimum Flow AMP
- Recreation Management Plan
- Shoreline Management Plan Monticello Reservoir
- Shoreline Management Plan Parr Reservoir
- Parr Hydroelectric Project Permitting Handbook



The group reviewed each of the draft CRSA/licensing documents for which comments were submitted. Each of the above listed documents is appended to these meeting notes and group revisions are visible in track changes. Major points of discussion with respect to these documents are included below.

CRSA Main Document

There was discussion with NMFS regarding the "reservation of authority" to prescribe fish passage vs. a prescription that is consistent with the Accord. NMFS noted that they intend to write a prescription with biological triggers consistent with the triggers in the Accord, with a focus on American shad. NMFS noted that if any reservations of authority are included, it will be a reservation of authority for sturgeon passage.

The group discussed USFWS legal counsel's revisions, specifically regarding the definition of "material." There was some confusion with the edits provided for this definition. SCE&G will discuss the revision to this definition and provide any edits to USFWS for consideration. Subsequent to the meeting, Melanie Olds noted via email that the USFWS agreed to the original definition of "material."

SMP

There was discussion regarding the length of stay at a Project recreation site, as SCE&G was currently having issues with individuals living at Lake Murray Project recreation sites. Revisions were made to the Permitting handbook to address this potential issue at Parr Project recreation sites.

Closing

Henry reviewed the relicensing schedule with the group. He noted that the documents reviewed at this meeting would be included with these meeting notes.

In discussions of the signing ceremony, it was noted that Kleinschmidt should send an email to the stakeholder list requesting an identification of individuals who plan on signing the document along with organization descriptions that will be included in CRSA Appendix D. Placeholders for these signatures will then be created within the CRSA.

The group adjourned and action items from this meeting are included below.

ACTION ITEMS:

- Issue CRSA signatory identification and organization description email Kleinschmidt
- Check references within FLA documents in order to make sure these references are consistent with final CRSA documents in date and content Kleinschmidt
- Issue Doodle Poll for CRSA signing ceremony dates (likely 3rd week in June) Kleinschmidt

