

Johnson, Laura

From: Warnock, Cory
Sent: Monday, January 04, 2016 3:26 PM
To: Miller, Monte D (DFG)
Cc: Johnson, Laura; 'Mike Salzetti'
Subject: RE: Grant Lake Meeting
Attachments: RE: Grant Lake Project Aquatic Resource Work Group Meeting

Hi Monte,

See attached email (sent on December 14th) setting the date. You were on the address list and I didn't get a kick back from you so I assumed you'd received it. If this isn't the case, my apologies. I'll be sending the updated Biotic Monitoring Plan to everyone tomorrow for a bit of review time prior to the meeting. This document along with the associated comment response table will be the primary document used for discussion during the meeting.

Happy New Year!

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Miller, Monte D (DFG) [mailto:monte.miller@alaska.gov]
Sent: Monday, January 04, 2016 3:21 PM
To: Warnock, Cory <Warnock@mcmjac.com>
Subject: Grant Lake Meeting

Any progress on setting a meeting date and time. Last I got was a doodle poll....Schedule is beginning to get busy and I want to firm up several approximates...

Thanks

Monte D. Miller
Statewide FERC Hydropower Coordinator
Alaska Department of Fish and Game
Division of Sport Fish / RTS
333 Raspberry Road
Anchorage, Alaska, 99518-1565

(907) 267-2312

Johnson, Laura

From: Warnock, Cory
Sent: Tuesday, January 05, 2016 8:37 PM
To: Brockmann, Steve
Cc: Johnson, Laura
Subject: FW: Grant Lake Project Aquatic Resource Work Group Meeting Document
Attachments: Grant Lake Biotic Monitoring Plan.pdf

Hello Steve,

I mistakenly used an incorrect email again, my apologies. Please see the message below and the attachment for additional detail related to the upcoming Grant Lake Project meeting.

Please let me know if you have any questions.

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Warnock, Cory
Sent: Tuesday, January 05, 2016 8:33 PM
To: 'Monte Miller' <monte.miller@alaska.gov>; 'Jeffry Anderson' <Jeffry_Anderson@fws.gov>; 'Susan Walker' <susan.walker@noaa.gov>; 'Sean Eagan - NOAA Federal' <sean.eagan@noaa.gov>; 'pamela.russell@alaska.gov' <pamela.russell@alaska.gov>; 'Patricia Berkhahn (patricia.berkhahn@alaska.gov)' <patricia.berkhahn@alaska.gov>; 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)' <katherine.a.mccafferty2@usace.army.mil>; 'Joe Klein' <joe.klein@alaska.gov>; 'Schade, David W (DNR)' <david.w.schade@alaska.gov>; 'Daniel J. Hertrich' <DHertrich@aidea.org>; 'rstovall@fs.fed.us' <rstovall@fs.fed.us>; 'Ken Hogan' <kenneth.hogan@ferc.gov>; 'kenailake@arctic.net' <kenailake@arctic.net>; 'mcooney@arctic.net' <mcooney@arctic.net>; 'stephen_brockmann@fws.gov' <stephen_brockmann@fws.gov>; 'across@fs.fed.us' <across@fs.fed.us>
Cc: 'Mike Salzetti' <msalzetti@HomerElectric.com>; Johnson, Laura <ljohnson@mcmjac.com>
Subject: Grant Lake Project Aquatic Resource Work Group Meeting Document

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (NRWG):

Hi all,

In preparation for the Grant Lake Aquatic Resource Work Group Meeting on January 13th (Wednesday) and as promised, I am attaching an updated version of the Biotic Monitoring Plan (BMP) for your review prior to the meeting. This BMP and the revisions therein will serve as the fundamental discussion piece for the meeting next week. An agenda will follow shortly but in an effort to expand on logistics now, the meeting will be held at the Aspen Suites in Anchorage (address below). It will begin at 9am and is anticipated to go until approximately 3pm. Mike Salzetti will be present. Unfortunately, due to some recent and previously unforeseen circumstances, I have had to change my plans and will not be able to attend in person. I will however, be participating via the GoToMeeting conference service and

over the phone. If anyone else is interested in this option, connection information will be included in the agenda. My apologies for not being able to attend.

As always, if there are any questions, don't hesitate to let me know. Additional information to follow shortly and I'll look forward to speaking with all of you next week.

Happy New Year!

Aspen Suites

Anchorage

100 E. Tudor Road

Anchorage, AK 99503

907-770-3400

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5771 Applegrove Ln | Ferndale, WA 98248

360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Wednesday, January 06, 2016 5:55 PM
To: Miller, Monte D (DFG)
Cc: Johnson, Laura
Subject: Re: Grant Lake Project Aquatic Resource Work Group Meeting Document

Hi Monte,

An agenda will be coming tomorrow.

Thanks!

Cory

On Jan 6, 2016, at 5:18 PM, Miller, Monte D (DFG) <monte.miller@alaska.gov> wrote:

Corey,
Please send an agenda.
Thanks

Monte Miller

From: Warnock, Cory [<mailto:Warnock@mcmjac.com>]
Sent: Tuesday, January 05, 2016 7:33 PM
To: Miller, Monte D (DFG); 'Jeffrey Anderson'; 'Susan Walker'; Sean Eagan - NOAA Federal; Russell, Pamela J (DNR); 'Patricia Berkhahn (patricia.berkhahn@alaska.gov)'; 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)'; Klein, Joseph P (DFG); Schade, David W (DNR); Hertrich, Daniel J (AIDEA); 'rstovall@fs.fed.us'; 'Ken Hogan'; 'kenailake@arctic.net'; 'mcooney@arctic.net'; 'stephen_brockmann@fws.gov'; 'across@fs.fed.us
Cc: 'Mike Salzetti'; Johnson, Laura
Subject: Grant Lake Project Aquatic Resource Work Group Meeting Document

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (NRWG):

Hi all,

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Anchorage, AK 99503
907-770-3400*

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Wednesday, January 06, 2016 10:57 AM
To: Reese, Carl D (DNR)
Cc: Schade, David W (DNR); Walton, Michael L (DNR); Johnson, Laura
Subject: RE: Grant Lake Project Aquatic Resource Work Group Meeting Document

Apologies Carl and I will get you added.

As for the GoToMeeting, I'll be sending out an agenda shortly. This will include the call-in/connection specifics.

Thanks!

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Reese, Carl D (DNR) [mailto:carl.reese@alaska.gov]
Sent: Wednesday, January 06, 2016 10:29 AM
To: Warnock, Cory <Warnock@mcmjac.com>
Cc: Schade, David W (DNR) <david.w.schade@alaska.gov>; Walton, Michael L (DNR) <michael.walton@alaska.gov>
Subject: FW: Grant Lake Project Aquatic Resource Work Group Meeting Document

Cory, the email below was forwarded to me by Dave Schade because I responsible for hydroelectric projects statewide. Could you put me on your list as the DNR/DMLW's representative for Grant Lake and any other hydroelectric projects in Alaska? Also, could you send me information on how to access the GoToMeeting? Thank you in advance,

Carl Reese
Statewide Hydroelectric Specialist
Department of Natural Resources
Division of Mining, Land, & Water
Water Resource Section
P.O. Box 111020
400 Willoughby Ave., 4th Floor
Juneau, AK 99811
(907) 465-2533

From: Schade, David W (DNR)
Sent: Wednesday, January 06, 2016 12:04 AM
To: Reese, Carl D (DNR)
Subject: Fwd: Grant Lake Project Aquatic Resource Work Group Meeting Document

Sent by David W. Schade from my personal I-phone.

Begin forwarded message:

From: "Warnock, Cory" <Warnock@mcmjac.com>
Date: January 5, 2016 at 8:32:56 PM PST
To: 'Monte Miller' <monte.miller@alaska.gov>, 'Jeffry Anderson' <Jeffry_Anderson@fws.gov>, 'Susan Walker' <susan.walker@noaa.gov>, "Sean Eagan - NOAA Federal" <sean.eagan@noaa.gov>, ""pamela.russell@alaska.gov"" <pamela.russell@alaska.gov>, ""[<patricia.berkhahn@alaska.gov>](mailto:Patricia Berkhahn (patricia.berkhahn@alaska.gov))"" <patricia.berkhahn@alaska.gov>, ""[<katherine.a.mccafferty2@usace.army.mil>](mailto:Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil))"" <katherine.a.mccafferty2@usace.army.mil>, 'Joe Klein' <joe.klein@alaska.gov>, ""[<david.w.schade@alaska.gov>](mailto:Schade, David W (DNR))"" <david.w.schade@alaska.gov>, "Daniel J. Hertrich" <DHertrich@aidea.org>, ""[<rstovall@fs.fed.us>](mailto:rstovall@fs.fed.us)"" <rstovall@fs.fed.us>, ""[<kenneth.hogan@ferc.gov>](mailto:Ken Hogan)"" <kenneth.hogan@ferc.gov>, ""[<kenailake@arctic.net>](mailto:kenailake@arctic.net)"" <kenailake@arctic.net>, ""[<mcooney@arctic.net>](mailto:mcooney@arctic.net)"" <mcooney@arctic.net>, ""[<stephen_brockmann@fws.gov>](mailto:stephen_brockmann@fws.gov)"" <stephen_brockmann@fws.gov>, ""[<across@fs.fed.us>](mailto:across@fs.fed.us)"" <across@fs.fed.us>
Cc: 'Mike Salzetti' <msalzetti@HomerElectric.com>, "Johnson, Laura" <ljohnson@mcmjac.com>
Subject: Grant Lake Project Aquatic Resource Work Group Meeting Document

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (NRWG):

Hi all,

In preparation for the Grant Lake Aquatic Resource Work Group Meeting on January 13th (Wednesday) and as promised, I am attaching an updated version of the Biotic Monitoring Plan (BMP) for your review prior to the meeting. This BMP and the revisions therein will serve as the fundamental discussion piece for the meeting next week. An agenda will follow shortly but in an effort to expand on logistics now, the meeting will be held at the Aspen Suites in Anchorage (address below). It will begin at 9am and is anticipated to go until approximately 3pm. Mike Salzetti will be present. Unfortunately, due to some recent and previously unforeseen circumstances, I have had to change my plans and will not be able to attend in person. I will however, be participating via the GoToMeeting conference service and over the phone. If anyone else is interested in this option, connection information will be included in the agenda. My apologies for not being able to attend.

As always, if there are any questions, don't hesitate to let me know. Additional information to follow shortly and I'll look forward to speaking with all of you next week.

Happy New Year!

Aspen Suites

Anchorage
100 E. Tudor Road
Anchorage, AK 99503
907-770-3400

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248

Johnson, Laura

From: Warnock, Cory
Sent: Wednesday, January 06, 2016 10:58 AM
To: McCafferty, Katherine A POA
Cc: Johnson, Laura
Subject: RE: Grant Lake Project Aquatic Resource Work Group Meeting Document

Thanks Katie. I'll sending out an agenda later today or tomorrow and it will included the GoToMeeting specifics.

Cory

Cory Warnock
Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

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

From: McCafferty, Katherine A POA [mailto:Katherine.A.McCafferty2@usace.army.mil]
Sent: Wednesday, January 06, 2016 10:38 AM
To: Warnock, Cory <Warnock@mcmjac.com>
Subject: RE: Grant Lake Project Aquatic Resource Work Group Meeting Document

Cory,
I will also be calling in as I will be travelling to another meeting for part of the day on the 13th.

Katie McCafferty
Project Manager
Direct: 907-753-2692

U.S. Army Corps of Engineers-Alaska District Regulatory Division, Kenai Field Office
44669 Sterling Highway, Suite B
Soldotna, AK 99669-7915
general office line: 907-753-2689
fax: 907-420-0813
Website: <http://www.poa.usace.army.mil/Missions/Regulatory.aspx>

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

From: Warnock, Cory [mailto:Warnock@mcmjac.com]
Sent: Tuesday, January 05, 2016 7:33 PM
To: 'Monte Miller' <monte.miller@alaska.gov>; 'Jeffry Anderson' <Jeffry_Anderson@fws.gov>; 'Susan Walker' <susan.walker@noaa.gov>; Sean Eagan - NOAA Federal <sean.eagan@noaa.gov>; 'pamela.russell@alaska.gov' <pamela.russell@alaska.gov>; 'Patricia Berkhahn (patricia.berkhahn@alaska.gov)' <patricia.berkhahn@alaska.gov>; McCafferty, Katherine A POA <Katherine.A.McCafferty2@usace.army.mil>; 'Joe Klein' <joe.klein@alaska.gov>; 'Schade, David W (DNR)' <david.w.schade@alaska.gov>; Daniel J. Hertrich <DHertrich@aidea.org>; 'rstovall@fs.fed.us' <rstovall@fs.fed.us>; 'Ken Hogan' <kenneth.hogan@ferc.gov>; 'kenailake@arctic.net' <kenailake@arctic.net>; 'mcooney@arctic.net' <mcooney@arctic.net>; stephen_brockmann@fws.gov; across@fs.fed.us

Cc: 'Mike Salzetti' <msalzetti@HomerElectric.com>; Johnson, Laura <ljohnson@mcmjac.com>
Subject: [EXTERNAL] Grant Lake Project Aquatic Resource Work Group Meeting Document

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (NRWG):

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907-770-3400

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248

Johnson, Laura

From: Warnock, Cory
Sent: Thursday, January 07, 2016 12:16 PM
To: Litchfield, Virginia P (DFG)
Cc: Johnson, Laura
Subject: RE: Grant Lake Project Aquatic Resource Work Group Meeting Document

Will do.

Thanks Ginny.

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Litchfield, Virginia P (DFG) [mailto:ginny.litchfield@alaska.gov]
Sent: Thursday, January 07, 2016 12:11 PM
To: Warnock, Cory <Warnock@mcmjac.com>
Subject: FW: Grant Lake Project Aquatic Resource Work Group Meeting Document

Cory,

Please delete Patti Berkhahn's name from your email distribution list and replace it with Brian Blossom.

brian.blossom@alaska.gov

Thank you,

Ginny Litchfield

Kenai Peninsula Area Manager
Alaska Department of Fish and Game
Habitat Division
(907) 714-2477 - (907)252-1444

From: Russell, Pamela J (DNR)
Sent: Wednesday, January 06, 2016 4:25 PM
To: Litchfield, Virginia P (DFG)
Subject: FW: Grant Lake Project Aquatic Resource Work Group Meeting Document

They still have Patti listed.

From: Warnock, Cory [Warnock@mcmjac.com]

Sent: Tuesday, January 05, 2016 7:32 PM

To: Miller, Monte D (DFG); 'Jeffrey Anderson'; 'Susan Walker'; Sean Eagan - NOAA Federal; Russell, Pamela J (DNR); 'Patricia Berkahn (patricia.berkhahn@alaska.gov)'; 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)'; Klein, Joseph P (DFG); Schade, David W (DNR); Hertrich, Daniel J (AIDEA); 'rstovall@fs.fed.us'; 'Ken Hogan'; 'kenailake@arctic.net'; 'mcooney@arctic.net'; stephen_brockmann@fws.gov; across@fs.fed.us

Cc: 'Mike Salzetti'; Johnson, Laura

Subject: Grant Lake Project Aquatic Resource Work Group Meeting Document

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360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Thursday, January 07, 2016 1:00 PM
To: 'Monte Miller'; 'Jeffry Anderson'; 'Susan Walker'; Sean Eagan - NOAA Federal; 'pamela.russell@alaska.gov'; 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)'; 'Joe Klein'; Daniel J. Hertrich; 'rstovall@fs.fed.us'; 'Ken Hogan'; 'kenailake@arctic.net'; 'mcooney@arctic.net'; across@fs.fed.us; Brockmann, Steve; Reese, Carl D (DNR); brian.blossom@alaska.gov
Cc: 'Mike Salzetti'; Johnson, Laura
Subject: Grant Lake Aquatic Resource Work Group Meeting Agenda
Attachments: Grant Lake Project ARWG Meeting Agenda_1_13_16.pdf

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (ARWG):

Hi all,

As promised, I'm attaching the agenda for our meeting next week. The attachment also includes all necessary information to dial in and connect via GoToMeeting for those that will be attending remotely (myself included). If there are any questions leading up to the meeting please don't hesitate to let me know. I'll be following this email up with a GoToMeeting invite so that your Outlook calendar can be populated accordingly.

Thanks!

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates

5771 Applegrove Ln | Ferndale, WA 98248

360.384.2662 p | 360.739.0187 c

warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Monday, January 11, 2016 9:48 AM
To: Miller, Monte D (DFG)
Cc: Klein, Joseph P (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: RE: Grant Lake Aquatic Resource Work Group Meeting Agenda

Hi Monte,

Per multiple communications leading up to the meeting, the primary intent of the Aquatics Resource Work Group meeting is to discuss the comments received on the Biotic Monitoring Plan (BMP) and how KHL has chosen to address them; hence the distribution of the BMP to the ARWG earlier this week for review in advance of the meeting. In regard to your comments on the DLA and the other management plans you cite below, KHL received all of them, has reviewed them and developed a comprehensive comment response matrix addressing all comments not only from ADF&G but all other state and federal agencies, FERC and the public. This matrix has been the fundamental tool from which significant revisions to the license application document and associated management plans have been made. The comments being addressed with the BMP on the 13th will be a subset of this more global matrix. This global comment matrix will be appended to the FLA when filed. KHL feels strongly that a significant majority of the overall comments received from all parties in all areas (natural resources, engineering, process, etc.) have been addressed with additional text, analysis and visual additions to what is now KHL's FLA. From a management plan perspective, the comments that are outstanding that KHL feels required the most substantive dialogue are PM&E and monitoring methodology specific and related to the BMP itself. Once this meeting and the associated dialogue and collaboration takes place, it is KHL's intent, given their significant progress on revising the documents per the comments received, to file the FLA (and associated management plans) with FERC in the next two months. If after this meeting and during our final document development phase, there is significant interest in seeing KHL's full comment response matrix prior to filing in the event a final conference call is needed prior to filing, this is something that KHL would be open to considering. Hopefully that helps a bit with the understanding of the remainder of KHL's intended process.

As always, if you have any further questions, don't hesitate to give me a call,

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Miller, Monte D (DFG) [mailto:monte.miller@alaska.gov]
Sent: Friday, January 08, 2016 4:45 PM
To: Warnock, Cory <Warnock@mcmjac.com>
Cc: Klein, Joseph P (DFG) <joe.klein@alaska.gov>
Subject: RE: Grant Lake Aquatic Resource Work Group Meeting Agenda

Corey,

Perhaps I misunderstood....

I thought that the purpose of the January 13, 2016 meeting was to discuss the Draft License Application (DLA) filed by Kenai Hydro, LLC (KHL) on March 27, 2015. Our DLA comments were sent to Mike Salzetti, in a letter format, by e-mail dated June 26, 2015. To date we have not had any response to those comments.

From the agenda, this meeting looks only to address the revised Draft Biotic Monitoring Plan (BMP) and not the DLA. The first draft BMP was filed by KHL with FERC on June 1, 2015.

What about the following plans filed by KHL with the Federal Energy Regulatory Commission (FERC) on May 15, 2015, and included in our comment filing with FERC on July 21, 2015?

- Avian Protection Plan,
- Operation Compliance Monitoring Plan,
- Historic Properties Management Plan,
- Vegetation management Plan, and
- Biological Evaluation for Plants.

I believe that it will be difficult to discuss any of these plans without first addressing the issues with the DLA.

This proposed discussion of the revised BMP appears to be out of the expected sequence, in that outstanding issues remain with the DLA.

To that end, what should we expect from this project in the next few months?

Monte D. Miller
Statewide FERC Hydropower Coordinator
Alaska Department of Fish and Game
Division of Sport Fish / RTS
333 Raspberry Road
Anchorage, Alaska, 99518-1565

(907) 267-2312

From: Warnock, Cory [<mailto:Warnock@mcmjac.com>]

Sent: Thursday, January 07, 2016 12:00 PM

To: Miller, Monte D (DFG); 'Jeffrey Anderson'; 'Susan Walker'; Sean Eagan - NOAA Federal; Russell, Pamela J (DNR); 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)'; Klein, Joseph P (DFG); Hertrich, Daniel J (AIDEA); 'rstovall@fs.fed.us'; 'Ken Hogan'; 'kenailake@arctic.net'; 'mcooney@arctic.net'; across@fs.fed.us; Brockmann, Steve; Reese, Carl D (DNR); Blossom, Brian D (DFG)

Cc: 'Mike Salzetti'; Johnson, Laura

Subject: Grant Lake Aquatic Resource Work Group Meeting Agenda

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (ARWG):

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McMillen Jacobs Associates

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warnock@mcmjac.com

Summary of stakeholder comments on the Grant Lake Hydroelectric Project (FERC No. 13212) Draft Biotic Monitoring Plan (filed June 1, 2015; KHL 2015b), and Kenai Hydro, LLC’s (KHL) responses.

Draft Biotic Monitoring Plan						
49	DLA-BMP-01	49	7/21/15 letter from ADFG	N/A	The same comments on project features that were made under Specific Comments for Project Features (all plans) apply to this plan.	KHL appreciates the comment and per comment response DLA-MP-09, detailed descriptions of all project infrastructure can be reviewed in Exhibit F of the FLA to which, this document is appended.
50	DLA-BMP-02	50	7/9/15 letter from FERC	Section 2.1	In section 2.1 <i>Historical Fisheries Information and Data</i> , the draft Biotic Monitoring Plan (BMP) states that Grant Creek was divided into 6 study reaches and that relative abundance and distribution of juvenile fish were determined for each reach. However, no data for reach 6 is provided, other than a statement that “rainbow trout were caught throughout the creek” and “[a]dult rainbow trout were observed in the upper portions of the canyon reach” (although it is unclear where the “canyon reach” is located, as it has not been defined in the BMP). Similarly, while section 2.2 <i>Summary of the 2013 Fisheries Research</i> , states that information on adult rainbow trout and Dolly Varden spawning and feeding was collected, no data for reach 6 was presented.	KHL appreciates the comment. KHL has revised Section 2.1 to clarify the scope of the 2013 study; specifically, that no sampling occurred within Reach 6. Also, Section 2.1 has been revised to define the “Canyon Reach”, which is another term to describe Reach 5 since it exists entirely within the Canyon portion of Grant Creek. A series of impassable falls are located at the Reach 5/6 break, so no resident or anadromous salmonids are found in Reach 6 above the anadromous barrier. The only fish present in Reach 6 are sculpins and threespine stickleback.
51	DLA-BMP-03	51	7/9/15 letter from FERC	Section 2.3	In section 2.3 <i>Summary of Projected Project Impacts</i> , the discussion and analysis of potential project effects and benefits in Grant Creek is limited to reaches 1 through 5. There is no discussion of potential project effects on reach 6, which extends from the base of a downstream waterfall to the Grant Lake outlet. Based on our understanding of the proposed project design and operations, reach 6 is likely to be the most severely affected reach within Grant Creek. Project drawdown operations result in reduced flow in reach 6 year-round, and when the surface elevation of Grant Lake is drawn below 703 feet NAVD 88, reach 6 may become dewatered. However, while this concern may not be relevant to the BMP, it must be addressed in the final license application	KHL appreciates the comment. Please see the response above (DLA-BMP-02). KHL has revised the text in the FLA (Section 4.6.1.1) and the text in the BMP, Section 2.1, to reflect that the falls located at the Reach 5/6 break presents a passage barrier to both resident and anadromous species, and that the only species observed historically in Reach 6 and Grant Lake were sculpin and threespine stickleback. As such, Reach 6 was not sampled in 2013. Please also refer to

						Comment DLA-BMP-02 and DLA-E-41.
52	DLA-BMP-04	52	7/21/15 letter from ADFG	Section 2.3	<p>The last paragraph in this section (page 18) identifies potential negative project impacts and potential positive impacts.</p> <p><i>“Potential positive impacts from the Project in Reach 5 include better maintenance of juvenile rearing habitat along with the likelihood of increased juvenile rearing habitat availability in addition to higher/more stable flows in the quality reaches (i.e., Reaches 1 – 4) during incubation and rearing; decreased summer flows will maintain habitat and help prevent stranding and potential egg desiccation as flows decrease, and operational changes will allow for high quality side channels to be more consistently wetted.”</i></p> <p>This paragraph is confusing in that it mixes Reach 5 potential impacts with Reach 1-4 potential impacts, in the same run together sentence.</p>	KHL appreciates the comment and has modified the text to be clearer.
53	DLA-BMP-05	53	7/15/15 letter from CWA	Section 2.3	<p>While KHL maintains that the Project will not only minimally impacts but will actually benefit fish species, the DRMP fails to provide a strategy for how these claims will be realized. The Commission, itself, for example, states:</p> <p style="padding-left: 40px;">In section 2.3 <i>Summary of Projected Project Impacts</i>, the discussion and analysis of potential project effects and benefits in Grant Creek is limited to reaches 1 through 5. There is no discussion of potential project effects on reach 6, which extends from the base of a downstream waterfall to the Grant Lake outlet. Based on our understanding of the proposed project design and operations, reach 6 is likely to be the most severely affected reach within Grant Creek. Project drawdown operations result in reduced flow in reach 6 year-round, and when the surface elevation of Grant Lake is drawn below 703.14</p> <p>14 FERC, Review of Draft Resource Management Plans for the Proposed Grant Lake Hydroelectric Project (FERC Review) (July 9, 2015).</p>	KHL appreciates the comment and has addressed the FERC referenced comment as part of the text revision process. Please see our responses to comments DLA-BMP-02 and DLA-BMP-03 above. A series of anadromous barriers at the Reach 5/6 break precludes passage into Reach 6 and Grant Lake, where only sculpins and threespine stickleback have been found.
54	DLA-BMP-06	54	7/9/15 letter from FERC	Section 3	<p>Section 3 of the BMP describes the method and timing for monitoring juvenile and adult salmonid populations during the project’s two year construction timeframe. However, the BMP does not include any actions to be taken in the event monitoring results demonstrate an unexpected or unacceptable effect on those populations. The BMP should describe how the monitoring data would be used and should also identify corrective actions or a process for developing corrective actions, in the event monitoring results demonstrate an unexpected or unacceptable effect on the salmonid populations in Grant Creek.</p>	KHL appreciates the comment; please see the new section, Section 3.6 in the BMP for language addressing this comment.

55	DLA-BMP-07	55	7/21/15 letter from ADFG	Section 3.3	<p><i>“The objectives include:</i></p> <ul style="list-style-type: none"> • <i>Determine if construction activities displace juvenile salmonids from critical rearing habitat, and</i> • <i>Determine if construction actions disrupt either the distribution or timing of adult salmonids in Grant Creek.”</i> <p>Objectives should be framed around parameters to be estimated. For example, estimates of displacement of juvenile salmon should utilize structured tests for catch per unit effort, or some other proxy for abundance. Also, replace the word determine with estimate.</p> <p>The applicant should also address how disruptions and displacements will be tested for and detected. What constitutes disruption and displacement? How will samples, pre and post-project, be statistically compared to assess disruptions and displacements? Appropriate statistical tests should be conducted.</p> <p><i>“A series of best management practices (BMP) and construction associated plans will be developed in advance of any construction activities to ensure that environmental impacts are avoided. These plans will account for water quality conditions, amongst other variables.”</i></p> <p>Management practices and plans of avoidance and mediation should be described in this draft management plan. Outlined plans, yet to be developed, need to identify guidelines and criteria standards to be met.</p> <p><i>“In addition, an Environmental Compliance Monitor (ECM) will be on-site daily during all construction activities. This individual will be responsible for assessing water quality conditions during construction and notifying appropriate parties, if necessary.”</i></p> <p>We recommend changing the <i>“if necessary”</i> to ...as required by the FERC license.</p>	<p>KHL appreciates the comments. We have edited the second of the objectives to be consistent with the level of monitoring proposed within the BMP. Specifically, we have omitted the reference to the timing of adult spawning. The proposed surveys will assess peak adult counts by species, which will not yield data that will allow an assessment of timing.</p> <p>As discussed in the draft BMP, we proposed to assess presence/absence of both adults and juveniles, which will not allow statistical assessments with pre-project.</p> <p>Please note we have included a new section, Section 3.6 that discusses management practices and plans of avoidance and mediation processes.</p> <p>The text has been modified to include the language, <i>“as required by the FERC license”</i>.</p>
56	DLA-BMP-08	56	7/21/15 letter from ADFG	Section 3.4.2	<p><i>“Adult sampling will consist of three primary components: visual, redd, and carcass surveys. All three surveys will be conducted twice for each species within each of the two construction years, and will be conducted on separate days within the sample week. Sample timing will be based on 2013 data, and will be conducted to coincide with the documented peak run-timing for each species.”</i></p> <p>The plan for adult sampling falls short of being adequate to identify post construction adult use of Grant Creek. We will likely request weekly surveys</p>	<p>KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol.</p> <p>KHL’s Management Plans have been structured to be at a minimum,</p>

					<p>during identified spawning times for species utilizing Grant Creek for spawning. To select only a single week for sampling would not provide indication of run strength or any increased or reduced trend in use. The plan should include a periodicity table which has been updated, as necessary, to include 2013 data.</p> <p>Additionally, we would ask for post construction monitoring because adult return to Grant Creek during construction years would be a factor of pre-construction conditions only, and would not show long term project effects. Biotic monitoring will be included in our recommended 10(j) Terms and Conditions yet to be filed with FERC for this project. While this plan is a start, it may not be inclusive of FERC license articles.</p> <p><i>“Additionally, all females will be inspected as to spawning success (i.e., pre-spawn mortality, completely spawned, the number of remaining eggs).”</i></p> <p>This is not a good definition of spawning success since other factors may be in play. A female may have voided all her eggs without them being fertilized by a male. A female might have had water infiltrate her vent, effectively water hardening some or all of her eggs, making them not viable. Simply counting remaining eggs in a carcass does not provide any estimation of spawning success. Typically, spawning success involves redd sampling for fertilization rates, fry emergence counts in the spring, etc. The sampling proposed does not even provide a fecundity estimate for each species or determine an accurate percentage of eggs remaining in a carcass. After a gravid female lays her eggs into her established redd, she may drift expelling some or all remaining unfertilized eggs before her death. Carcass counts may be subjected to these inaccuracies. The information that can be gathered with the proposed carcass sampling is limited to an appearance of spawning, identification of pre spawning mortality, and probable counts of spawning adults.</p> <p><i>“Visual and redd surveys will be conducted as in 2013. Biologists will hike upstream along each bank of Grant Creek wearing polarized sunglasses to reduce glare, and will document adult fish and redds (by species).”</i></p> <p>Include the main channel, side channels, and distributary channels in these survey plans. Also include how counts will be made and what reporting metrics will be included.</p>	commensurate with other recently developed or relicensed projects in Alaska.
57	DLA-BMP-09	57	7/9/15 letter from FERC	Section 4.1	<p>In section 4.1 <i>Potential Project-related effects on fish from Project Operations</i>, the BMP identifies decreased sediment recruitment and flows in reach 5 as a potential project effect. Based on our review of the proposed project</p>	KHL appreciates the comment and has added text to discuss Project effects on Reach 6. Reach 6 would also be affected by decreased flows; however,

					description and operation, it appears that these potential effects may also occur in reach 6; however, the BMP makes no mention of potential effects to reach 6.	Reach 6 is located above a series of impassable falls below Grant Lake’s outlet (Reach 5/6 break), which prevents colonization of Reach 6 and the lake by salmonids via Grant Creek (Ebasco 1984). The only fish species found in Reach 6 and Grant Lake are sculpins and threespine stickleback. Please also refer to response to Comment DLA-E-41.
58	DLA-BMP-10	58	7/9/15 letter from FERC	Section 4.1	Section 4 of the BMP describes the method and timing for monitoring juvenile and adult salmonid populations during the project’s operation. However, the BMP does not include any actions to be taken in the event monitoring results demonstrate an unexpected or unacceptable effect on salmonid populations. The BMP should describe how monitoring data would be used and should also identify corrective actions or a process for developing corrective actions, in the event monitoring results demonstrate an unexpected or unacceptable effect on the salmonid populations in Grant Creek.	KHL appreciates the comment and has incorporated additional text to address the identification and implementation of corrective actions, if necessary. Please see response to Comment DLA-BMP-06.
59	DLA-BMP-11	59	7/15/15 letter from CWA	Section 4.1	Similarly, the Commission is concerned that the Biotic Monitoring Plan (BMP) does not include any actions to be taken in the event monitoring results demonstrate an unexpected or unacceptable effect on juvenile fish populations. The BMP, therefore “should describe how the monitoring data would be used and should also identify corrective actions or a process for developing corrective actions, in the event monitoring results demonstrate an unexpected or unacceptable effect on the salmonid populations in Grant Creek.” ¹⁵	KHL appreciates the comment and has incorporated additional text to address the identification and implementation of corrective actions, if necessary. Please see new Section 3.6 of the BMP, and response to Comment DLA-BMP-06.
60	DLA-BMP-12	60	7/21/15 letter from ADFG	Section 4.3	<i>15 Id. at 3.</i> <i>“The objectives include:</i> <ul style="list-style-type: none"> • <i>Determine if greater flows in the Reach 2/3 side channels during the winter result in juvenile rearing during this timeframe and at these locations;</i> • <i>Determine if mitigation efforts in the Reach 1 distributary result in increased juvenile utilization;</i> • <i>Determine if relative juvenile abundance and distribution deviates from baseline conditions due to Project operations, and</i> • <i>Determine if adult distribution deviates from baseline conditions due to project</i> 	KHL appreciates the comment. Text in Section 4 has been revised to more adequately describe the methodologies to be implemented.

					As with the objectives under section 3.3, these should be framed around parameters to be estimated. Plans should identify existing baseline condition data to allow for statistical comparison of baseline and post-project utilization.	
61	DLA-BMP-13	61	7/15/15 letter from USFWS	Section 4.3	<p>The U. S. Fish and Wildlife Service’s (Service) goal in making recommendations for the draft Biotic Monitoring Plan (Plan) is to develop a thorough understanding of existing fish and wildlife populations and habitat characteristics that are potentially at risk from the proposed Grant Lake Hydroelectric Project (Project). As we suggested during comments to draft study plans in 2010, studies should be developed with the appropriate level of scientific precision and accuracy so that rigorous analyses can be made of the direct, indirect, and cumulative effects associated with Project development and operation. In many cases, the quality of information needed for understanding the potential effects of the Project is of finer resolution than information currently gathered or available for fisheries or resource management purposes. Data collected must be of sufficient quality to differentiate potential impacts of the Project from background natural variation and studies should be designed to quantify potential Project impacts and cumulative effects at the appropriate spatial and temporal scale of a potential license, which includes the Kenai River watershed over a 30 to 50 year timeframe.</p> <p>As we suggested in 2010, specific objectives should be developed for each study component with a clearly specified level of precision and accuracy such that the objectives are statistically sound. With this in mind, we recommend that specific study needs and recommendations be based on the SMART objectives concept (Specific- concrete, detailed, well defined; Measurable- numbers, quantity, comparison; Achievable- feasible, actionable; Realistic- considering resources; and Time-Bound- a defined time line). We have previously provided references that discuss developing objectives and the specification of statistical criteria and have also previously provided examples of SMART objectives for use on this Project.</p> <p>Currently, study objectives identified in sections 4.3 and 5.2.2 are not well-defined and results of the proposed field work are likely to be ambiguous. None of the listed objectives specify a level of precision or accuracy that would inform sample size determination. Also, no statistical tests are identified that will be performed to evaluate implied hypotheses for each objective and no mention is made of a critical value of the test that will inform rejection or acceptance of hypotheses. It is also unclear why sampling is only proposed in post-construction years 2 and 5. The Service recommends that the Project</p>	<p>KHL appreciates the comment and perspective. As the USFWS is aware, KHL facilitated a structured and collaborative process for revising the 2010 study plans to ensure that a more quantitative and comprehensive study program/impact assessment was implemented related to the development of the Grant Lake Project. The USFWS played an integral role in the study development process and was kept involved and informed during all phases of the biological studies (design, permit acquisition, study season, site visit, data analysis, reporting, impact analysis, instream flow discussions, etc.).</p> <p>KHL feels strongly that the comprehensive aquatic data collected during the licensing process, the associated impact analysis and existing historical data has facilitated the development of a Project infrastructure and operational regime that will result in no net impact to aquatic resources in the Project area. Additionally and as documented in the DLA and associated Management Plans, KHL has proposed a series of aquatic habitat-based enhancement measures that per habitat analysis, will increase habitat value for the primary anadromous species that utilize Grant Creek beyond existing natural conditions.</p>

					revisit the draft Plan to address statistical rigor. We also suggest implementing as many aspects of this Plan during the 2015 field season as possible in order to establish a scientifically- defensible pre-Project baseline that will be consistent with methods used to monitor the Project during the construction and operational phases.	KHL appreciates the comment and plans on further consultation with USFWS (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol. KHL's Management Plans have been structured to be at a minimum, commensurate with other recently developed or relicensed projects in Alaska.
62	DLA-BMP-14	62	7/21/15 letter from ADFG	Section 4.4.1	<p><i>"Sampling will be conducted in years 2 and 5 of operations."</i></p> <p>Post project construction sampling needs further discussion to arrive at an acceptable sampling methodology, frequency, and duration.</p>	KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol.
63	DLA-BMP-15	63	7/21/15 letter from ADFG	Section 4.4.1	<p>In a discussion of sampling using minnow traps it is stated:</p> <p><i>"Traps will be baited with a 16.4 cm³ mass of sterilized salmon eggs and will be fished for approximately 24 hours."</i></p> <p>The mass of salmon eggs is stated to be "16.4 cm³." Since 16.4 cm is equal to about 6 ½ inches, is the plan proposing to utilize a 6 ½ inch cube of salmon eggs in each trap as bait?</p>	KHL appreciates the comment. The cubic measurement 16.54 cm ³ is equivalent to a 1 inch x 1 inch x 1 inch mass of eggs.
64	DLA-BMP-16	64	7/21/15 letter from ADFG	Section 4.4.1	<p><i>"Minnow trap data will address the issues of whether operations influence the relative abundance and distribution of juvenile salmonids with Reaches 1-5 and the side channels and tributaries of Grant Creek, as well as winter-time usage of the Reach 1 distributary and the Reach 2/3 side channels."</i></p> <p>The use of the Reach 1 distributary at the time of the agency site visit in 2013 was minimal despite streamflow in excess of 300cfs. There was only 1-3 inches of water in the Reach 1 distributary at that time. The applicant has mentioned possible mitigation which may occur in this distributary but has not included any proposals for this measure in the DLA or draft plans. It is impossible to address minnow trapping effectiveness in these areas until a mitigation proposal is prepared.</p>	Section 5.1 of the BMP generally describes the "Additional Flow in the Reach 1 Distributary" enhancement measure. Additional detail has been provided in the FLA to detail the intent and methods for implementing this measure.

65	DLA-BMP-17	65	7/21/15 letter from ADFG	Section 4.4.1	<p><i>“Concurrent with April minnow trapping, snorkel surveys will be conducted in the side channels of Reach 2/3 and the Reach 1 distributary.”</i></p> <p>Again it is not clear what the water depth will be during April since the reservoir will be refilling and the project would likely be operating at a lower production level. This is true in the main channel as well as side channels and the Reach 1 distributary. Snorkel survey success may be limited.</p>	KHL appreciates the comment. It is notable that based upon the current operational flow regime that KHL will be distributing between 77-92 cfs down the mainstem of Grant Creek during April. This will correlated to 13-15 cfs down the Reach 2/3 side channel which is approximately twice the natural flow.
66	DLA-BMP-18	66	7/21/15 letter from ADFG	Section 4.4.2	The same comments made for construction sampling are valid here. Post project construction sampling needs further discussion to arrive at an acceptable sampling methodology, frequency, and duration. See previous statements under 3.4.2. as they relate here as well. Include the main channel, side channels, and distributary channels in these surveys.	KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol.
67	DLA-BMP-19	67	7/21/15 letter from ADFG	Section 4.4.2	<p><i>To address sockeye populations:</i></p> <p><i>“KHL proposes, in addition to conducting counts in Grant Creek, to monitor other fish runs to the Kenai River. Fish numbers may be available for other systems on the Kenai Peninsula, notably the Russian and Kasilof rivers.”</i></p> <p>More information is needed on KHL’s proposal to conduct this monitoring. The Grant Creek sockeye run returns to the headwaters of the Kenai River system and is subjected to fisheries all along the length of the system. Other tributary systems may have different factors which affect the returns of sockeye. Timing of returns is critical to the sockeye arriving at a tributary, since they must pass Cook inlet commercial fisheries, personal use fisheries and sport fisheries to arrive at spawning grounds. Each listed watershed will have different factors which may preclude comparison to Grant Creek. The Kasilof River is a completely different river system with a very different run composition. Comparison of Grant Creek sockeye returns to returns to all of these systems would be very difficult due to variability in harvests and watershed conditions, such as those caused by recent wildfire activity at the Russian River, Kasilof River, and middle Kenai River. This proposal may be interesting to research, but it is unclear how it will inform on Grant Creek project effects?</p>	KHL appreciates the comment. Rather, the intent of monitoring other fish runs on the Kenai River is to provide information on the overall Kenai system and offer additional information into whether the system as a whole is experiencing a relatively high, average or depressed run of the species of interest. This information will be valuable during years when runs are lower than normal in Grant Creek and KHL needs to determine whether depressed numbers are the result of Project effects occurring in the Kenai system as a whole.
68	DLA-BMP-20	68	7/21/15 letter from ADFG	Section 4.5	Post project construction sampling needs further discussion to arrive at an acceptable sampling methodology, frequency, and duration.	KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in

						advance of the FLA filing to agree on a mutually acceptable monitoring protocol.
69	DLA-BMP-21	69	7/9/15 letter from FERC	Section 5	<p>In section 5.1 <i>Proposed Protection, Mitigation and Enhancement</i>, the BMP states that spawning substrate is naturally limited within Grant Creek and that the proposed monitoring would evaluate the need for channel maintenance flows and/or gravel supplementation within the mainstem of Grant Creek. Section 5.3.3 <i>Gravel Supplementation/Channel Maintenance Methodologies</i> specifies that channel maintenance flows and gravel augmentation will be provided as appropriate and in consultation with stakeholders. Section 5.4 <i>Schedule</i>, states that “[o]nce PM&E measures are in place,” efficacy surveys during years 2 and 5 post-construction will be implemented. This section also states that channel maintenance type flows may occur naturally which may negate the need for gravel augmentation in Grant Creek.</p> <p>Given the above, we find the BMP unclear. It appears that the need for gravel augmentation has not yet been determined, although it is stated that spawning substrate is naturally limited within Grant Creek. In contrast, the statement in section 5.4, that efficacy surveys will be conducted during years 2 and 5, implies that the success of gravel augmentation efforts will be evaluated during those years.</p> <p>The BMP should articulate the process KHL proposes to implement. Does KHL propose to initially enhance Grant Creek by introducing spawning gravel, and then monitor the efficacy of that effort in order to inform an adaptive management approach on the need for and/or design of future spawning gravel augmentation efforts; or is it KHL’s proposal to first evaluate the project operational effects on spawning gravel recruitment to Grant Creek and if a need is determined, to then augment spawning gravel? In either case, the BMP should clearly describe the process KHL proposes to pursue. Additionally, the BMP should specify biological and/or physical thresholds that will be used to determine whether future (post 2- and 5-year surveys) spawning gravel augmentation will be applied.</p>	KHL appreciates the comment and has revised the text to more clearly define the plans/process associated with assessing the need for gravel augmentation/channel maintenance flows and what implementation would look like, if needed.
70	DLA-BMP-22	70	7/21/15 letter from ADFG	Section 5.1	<p>Possible PM&E measures have been mentioned in meetings but have not been discussed at length. In depth discussions on mitigation proposals need to happen. This section also lacks sufficient detail to evaluate a value to the Grant Creek system. PM&E Goals and Objectives may need modification once discussions are held.</p>	“KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring

						protocol”. In addition, text related to proposed PM&E’s has been expanded to further detail implementation methodology.
71	DLA-BMP-23	71	7/21/15 letter from ADFG	Section 5.1	<p>The following comments are relative to the proposed PM&E measures listed in this section. At this time we have no endorsement of proposed PM&E measures.</p> <p><i>“A suite of PM&E measures have been proposed for the Project. These measures include, but are not limited to the following:”</i></p> <ul style="list-style-type: none"> <i>• “Enhancement of Reach 2/3 Side Channels. KHL has proposed more consistent flows and winter-time inundation of these side channels as a result of Project operations. The proposed operational flows will increase aquatic habitat in these side channels.”</i> <p>Provide specific details or references to study results that demonstrate how estimated increases in side channel habitat are a result of proposed project operation.</p>	KHL conducted a Habitat Time Series Analysis for Grant Creek, using 66-year composite flows records, with and without the Project. WUA for each species and life history stage were compiled from this record. Results can be found in the Grant Creek Aquatic Habitat Mapping and Instream Flow Study, Final Report (KHL 2014d) and the FLA. The text has been revised to further describe the increases in habitat.
72	DLA-BMP-24	72	7/21/15 letter from ADFG	Section 5.1	<p>The following comments are relative to the proposed PM&E measures listed in this section. At this time we have no endorsement of proposed PM&E measures.</p> <p><i>“Additional Flow in the Reach 1 Distributary. This measure, proposed by KHL, would remove the upstream control, providing greater and more consistent flows in this distributary, increasing both rearing and spawning habitat.”</i></p> <p>Need to provide an estimate of how flow will be increased due to removal of the hydraulic control, including timing, frequency and duration. Along with this information, more detail is needed on specifically how habitat will be increased as a result of these increases in flow. Develop a plan to monitor and maintain the hydraulic control and increases in <i>“Spawning Gravel Augmentation/Flushing Flows.”</i></p>	<p>Currently, no water enters the Reach 1 Distributary until Grant Creek flows exceed 190 cfs. Analysis of habitat in the side channel indicates that significant increases in WUA can be obtained as flows increase up to and including 30 cfs.</p> <p>Text has been revised to describe this proposed measure more fully. Please also refer to Section 4.6.3.1.2 of the FLA.</p>
73	DLA-BMP-25	73	7/21/15 letter from ADFG	Section 5.1	<p>The following comments are relative to the proposed PM&E measures listed in this section. At this time we have no endorsement of proposed PM&E measures.</p> <p><i>Spawning substrate is naturally limited within Grant Creek. This PM&E measure, proposed by KHL, would evaluate the need for gravel</i></p>	KHL appreciates the comment and has revised the text to more clearly define the plans/process associated with assessing the need for gravel augmentation/channel maintenance flows and what implementation would

					<p><i>supplementation within the mainstem of Grant Creek, and/or periodic need for channel maintenance (i.e., flushing) flows to move upstream sediment.”</i></p> <p>This proposal is unclear. How will the applicant evaluate the need for gravel and how would this evaluation translate into a PM&E measure?</p>	look like, if needed. Please also see response to Comment DLA-BMP-21.
74	DLA-BMP-26	74	7/21/15 letter from ADFG	Section 5.1	<p>The following comments are relative to the proposed PM&E measures listed in this section. At this time we have no endorsement of proposed PM&E measures.</p> <p><i>“Spawning Gravel Augmentation within the Reach 1 Distributary. To create spawning habitat within the Reach 1 distributary, gravel augmentation, in addition to enhanced flows due to the upstream control removal, will be implemented at this location.”</i></p> <p>A gravel augmentation plan is needed for this distributary with detailed information and appropriate maps. Specify material composition, sizes, augmentation depths, and distribution of gravel. See comments provided under 5.3.2.2.1. <i>Site Selection, Gravel Placement, and Schedule</i>, for determination of gravel origin, type, size, and distribution.</p>	KHL appreciates the comment. Per previous responses, additional detail related to the adaptive management approach to be taken related to the need for gravel augmentation will be incorporated into the Biotic Monitoring Plan.
75	DLA-BMP-27	75	7/21/15 letter from ADFG	Section 5.2.1	<p>Specific goals state: “Maintain minimum instream flows of 5 to 10 cfs in Reach 5.”</p> <p>We appreciate the applicant’s proposal for instream flow release. This proposal will be evaluated for adequacy and will be the subject of further discussion.</p>	KHL appreciates the comment.
76	DLA-BMP-28	76	7/15/15 letter from USFWS	Section 5.2.2	<p>The U. S. Fish and Wildlife Service’s (Service) goal in making recommendations for the draft Biotic Monitoring Plan (Plan) is to develop a thorough understanding of existing fish and wildlife populations and habitat characteristics that are potentially at risk from the proposed Grant Lake Hydroelectric Project (Project). As we suggested during comments to draft study plans in 2010, studies should be developed with the appropriate level of scientific precision and accuracy so that rigorous analyses can be made of the direct, indirect, and cumulative effects associated with Project development and operation. In many cases, the quality of information needed for understanding the potential effects of the Project is of finer resolution than information currently gathered or available for fisheries or resource management purposes. Data collected must be of sufficient quality to differentiate potential impacts of the Project from background natural variation and studies should be designed to quantify potential Project impacts and cumulative effects at the appropriate spatial and temporal scale of a potential</p>	KHL appreciates the comment and perspective. As the USFWS is aware, KHL facilitated a structured and collaborative process for revising the 2010 study plans to ensure that a more quantitative and comprehensive study program/impact assessment was implemented related to the development of the Grant Lake Project. The USFWS played an integral role in the study development process and was kept involved and informed during all phases of the biological studies (design, permit acquisition, study season, site visit,

				<p>license, which includes the Kenai River watershed over a 30 to 50 year timeframe.</p> <p>As we suggested in 2010, specific objectives should be developed for each study component with a clearly specified level of precision and accuracy such that the objectives are statistically sound. With this in mind, we recommend that specific study needs and recommendations be based on the SMART objectives concept (Specific- concrete, detailed, well defined; Measurable- numbers, quantity, comparison; Achievable- feasible, actionable; Realistic- considering resources; and Time-Bound- a defined time line). We have previously provided references that discuss developing objectives and the specification of statistical criteria and have also previously provided examples of SMART objectives for use on this Project.</p> <p>Currently, study objectives identified in sections 4.3 and 5.2.2 are not well-defined and results of the proposed field work are likely to be ambiguous. None of the listed objectives specify a level of precision or accuracy that would inform sample size determination. Also, no statistical tests are identified that will be performed to evaluate implied hypotheses for each objective and no mention is made of a critical value of the test that will inform rejection or acceptance of hypotheses. It is also unclear why sampling is only proposed in post-construction years 2 and 5. The Service recommends that the Project revisit the draft Plan to address statistical rigor. We also suggest implementing as many aspects of this Plan during the 2015 field season as possible in order to establish a scientifically- defensible pre-Project baseline that will be consistent with methods used to monitor the Project during the construction and operational phases.</p>	<p>data analysis, reporting, impact analysis, instream flow discussions, etc.).</p> <p>KHL feels strongly that the comprehensive aquatic data collected during the licensing process, the associated impact analysis and existing historical data has facilitated the development of a Project infrastructure and operational regime that will result in no net impact to aquatic resources in the Project area. Additionally and as documented in the DLA and associated Management Plans, KHL has proposed a series of aquatic habitat-based enhancement measures that per habitat analysis, will increase habitat value for the primary anadromous species that utilize Grant Creek beyond existing natural conditions.</p> <p>KHL appreciates the comment and plans on further consultation with USFWS (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol. KHL's Management Plans have been structured to be at a minimum, commensurate with other recently developed or relicensed projects in Alaska.</p>
77	DLA-BMP-29	77	7/21/15 letter from ADFG	<p>Section 5.2.2</p> <p><i>“Determine if greater flows in the Reach 2/3 side channels during the winter increase juvenile salmonid numbers in these side channels;”</i></p> <p>There has been no winter study of side channel use by juvenile salmonids completed to provide for a comparison between pre and post construction. The PHABSIM study indicated that there was no available habitat in side channels</p>	<p>KHL appreciates the comment. It is important to note that under natural conditions, the side channels in question are either dry or significantly frozen over thus significantly minimizing any viability for juvenile overwintering. KHL doesn't see a</p>

					during the winter. Currently under winter flow conditions access to side channel habitat is limited. Increased flows in side channels due to project operation may attract fish into an environment which may be more prone to freeze out. Additional studies need to be made to identify project effects (both positive and negative) in these areas.	need for additional winter analysis to assess the current question. Rather, KHL is proposing to monitor these areas in the winter to confirm that the modeled values related to increases in habitat value under operational conditions are being realized.
78	DLA-BMP-30	78	7/21/15 letter from ADFG	Section 5.3	Post project construction sampling needs further discussion to arrive at an acceptable sampling methodology, frequency, and duration.	KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol.
79	DLA-BMP-31	79	7/21/15 letter from ADFG	Section 5.3.1	<p><i>“Juvenile sampling methodologies will be consistent with the methods described in Section 3.4.1, that is, minnow trapping as well as snorkeling, will be used to gather data on juvenile salmonid distribution and numbers within the Reach 1 distributary and the Reach 2/3 side channels.”</i></p> <p>How does the applicant propose to assess increases in utilization in these channel types? Appropriate metrics should be listed and appropriate statistical tests should be proposed.</p>	KHL appreciates the comment. As discussed in the draft BMP, we propose to assess presence/absence of both adults and juveniles. Please also see response to Comment DLA-BMP-07.
80	DLA-BMP-32	80	7/21/15 letter from ADFG	Section 5.3.3.2.1	<p><i>“In lieu of the Reach 4/5 recruitment station, gravel may also be placed manually at select locations within the Reach 1-4 mainstem; this alternative would also be developed in consultation with the stakeholders.”</i></p> <p><i>“...all gravel used during the implementation of this PM&E measure will be native material mined during the construction of the tunnel”...</i></p> <p>The applicant is encouraged to research and identify criteria for substrate size and depth. These criteria should relate to redd site selection and egg deposition depths. The applicant is also encouraged to identify and specify the use of criteria to assess the need for gravel augmentation.</p> <p>There is a huge difference between appropriate spawning substrate (gravels) and mined material from a blasted tunnel. Fractured rock does not make viable spawning substrate for salmonids. If a boring machine is used, the removed materials resemble powder, also which is not good spawning substrate.</p>	KHL appreciates the comment.
81	DLA-BMP-33	81	7/21/15 letter from ADFG	Section 5.3.3.2.1	<p><i>“Gravel (25 –150 mm) will be placed in the stream or at recruitment stations, per Merz and Setka (2004).”</i></p>	KHL appreciates the comment. Per previous responses, additional detail related to the adaptive management

					<p>Merz and Setka (2004) and Merz et al. 2004¹, both described enhancement through gravel supplementation on the Mokelumne River at downstream sites below the Comanche Dam. This project placed more than 11,000 m³ of gravel at 12 spawning bed enhancement sites between 1991 and 2003. Merz et al. 2004 stated that this project: ... “placed washed river rock in berms, staggered bar, riffle, or complex channel geometry configurations to improve spawning habitat.” As is reflected in the Mokelumne River study report, the project used washed river gravel which was strategically placed to develop features within the study areas. Gravel was not simply dumped and allowed to wash downstream. Gravel 25mm to 150mm (1 inch to approximately 6.25 inches) is stated to be used. A more complete description of the gravel is necessary to identify composition size percentage. Little would be gained is 100% of gravels provided were 6 inch cobbles. This would fall within the proposed size range but would probably reduce spawning ability for most species spawning in Grant Creek.</p> <p>¹ Merz, J.E., J.D. Setka, G.B. Pasternack, and J.M. Wheaton. 2004. Predicting benefits of spawning habitat rehabilitation to salmonid (<i>Oncorhynchus</i> spp.) fry production in a regulated California river. <i>Canadian J. Fish. Aquat. Sci.</i>, Volume 61, page 1433-1446. Published by NRC Research Press Web site at http://cjfas.nrc.ca. October 2004..</p>	<p>approach to be taken related to the need for gravel augmentation will be incorporated into the Biotic Monitoring Plan.</p>
82	DLA-BMP-34	82	7/21/15 letter from ADFG	Section 5.3.3.2.1	<p>“At the conclusion of the 5-year period, KHL in consultation with stakeholders, will make a determination on the need for gravel augmentation within the mainstem.”</p> <p>If gravel augmentation is accepted as a PM&E measure by the agencies and FERC, it could be said that gravel augmentation is necessary because gravel recruitment in Grant Creek has been reduced or ceased altogether by project operations. It is not clear how KHL will define the “need” after five years. Gravel movement from lower Grant Creek would continue after the five years, therefore it would seem that some form of gravel augmentation would be necessary for the life of the project, perhaps on an intermittent basis. As reflected in Merz et al. 2004, the Mokelumne River spawning gravel augmentation project had been in operation for 12-13 years at the time of reporting. It is not clear if periodic maintenance flows will provide similar gravel recruitment when compared to pre-project gravel recruitment.</p>	<p>KHL appreciates the comment. Per previous responses, additional detail related to the adaptive management approach to be taken related to the need for gravel augmentation will be incorporated into the Biotic Monitoring Plan.</p>
83	DLA-BMP-35	83	7/21/15 letter from ADFG	Section 5.3.2.2	<p>The citation of Metz and Setka (2004) is incorrect. It is Merz and Setka (2004).</p>	<p>KHL will revise the citation.</p>

84	DLA-BMP-36	84	7/21/15 letter from ADFG	Section 5.3.2.2.3	This section cites Sections 3.4.2. and 4.4.2. for identifying methods of conducting adult surveys. We have commented on those sections in this draft plan. We refer to those comments as being appropriate for this section.	KHL appreciates the comment and plans on further consultation with ADFG (and other stakeholders in advance of the FLA filing to agree on a mutually acceptable monitoring protocol.
85	DLA-BMP-37	85	7/21/15 letter from ADFG	Section 5.4	<p><i>“It is important to note that additional collaboration with stakeholders is planned post-license issuance and during construction to fully develop an appropriate plan for any gravel supplementation efforts associated with Grant Creek.”</i></p> <p>PM&E measures should be fully described and defined prior to issuance of the FERC license.</p>	Per the BMP and with specific respect to the gravel augmentation/channel maintenance flows, an adaptive management approach is being proposed by KHL and the process for assessing need and determining timing is outlined in the FLA and the BMP. Until determination of need, amount and timing is assessed during the first 5 years of the license and associated consultation take place, the measure (if needed) itself cannot be defined. We have revised the BMP to reflect these changes.
86	DLA-BMP-38	86	7/21/15 letter from ADFG	Section 5.4	<p><i>“Based upon the operational analysis conducted by KHL, the potential exists for channel maintenance type flows to occur via the natural outlet from Grant Lake during operation that would be sufficient for gravel recruitment from Reach 5. This may occur on a consistent enough periodic timeline to preclude the need for gravel supplementation in the mainstem of Grant Creek. This will need to be determined once operations commence.”</i></p> <p>Description of this facility has been presented as a lake storage system which will be drawn down as much as 13 feet during the winter and spring to meet power production demand. Refill timing will depend on spring snow melt and rainfall events. Reach 5 has been identified by the applicant as the source for gravel recruitment to lower Grant Creek. This reach currently is subjected to the force of water from all flows out of Grant Lake. Reach 5 has been described as primarily a bedrock influenced pool and cascade reach flowing through a canyon section. As such, water forces are necessary to produce erosion of materials which make up the replacement gravels for downstream reaches. Under normal project operations, short term channel maintenance type flows would probably lack the duration necessary to maintain the erosion function needed to sustain gravel recruitment at pre-</p>	KHL appreciates the comment. It is important to note that per the BMP and the Grant Lake Geomorphology Report, a majority of the substrate recruited into the Grant Creek system is the result of episodic events (earthquakes, glaciers, floods, etc.) as opposed to consistent “water forces” as a result of typical flows down Grant Creek. The Project would not preclude these episodic events from continuing to occur. In addition, periodic flushing flows have been proposed as a mitigation strategy to help recruit sediment from the canyon reach and transport it to the lower reaches of Grant Creek. These sediment size characteristics in

					project levels. We will address channel maintenance flows in our Recommended 10(j) Terms and Conditions.	Reaches 1 through 4 will be monitored and compared to existing sediment conditions per the plan, and if necessary, adaptive management practices potentially including, supplemental gravel augmentation, will be implemented. KHL appreciates the comment. Per previous responses, additional detail related to the adaptive management approach to be taken related to the need for gravel augmentation will be incorporated into the Biotic Monitoring Plan. Please also refer to Comment DLA-MP-06.
87	DLA-BMP-39	87	7/21/15 letter from ADFG	Section 5.4	<i>“Thus the need for continued collaboration with stakeholders to determine the appropriate need for and level of analysis related to the effectiveness of the measure.”</i> Regardless of any PM&E measures chosen, there will be a need for continued collaboration if adaptive management is to be attempted. That is why it is vitally important that all plans be developed completely and thoroughly to establish requirements and expectations for construction and post construction implementation of PM&E measures.	KHL appreciates the comment.
88	DLA-BMP-40	88	7/21/15 letter from ADFG	Section 6	<i>“Every winter, KHL will convene a global meeting with all stakeholders and FERC to review all management plans and related monitoring efforts associated with construction and subsequent operation of the Project.”</i> We support the use of annual meeting to review and address management plans and monitoring efforts, when needed. We recommend adding language that provides this flexibility.	KHL appreciates the comment.

References

- AEIDC (Arctic Environmental Information and Data Center). 1983. Summary of environmental knowledge of the proposed Grant Lake hydroelectric project area. Final Report submitted to Ebasco Services, Inc., Redmond, Washington, University of Alaska, Anchorage, Alaska.
- Ebasco (Alaska Power Authority). 1984. Grant Lake Hydroelectric Project Detailed Feasibility Analysis. Volume 2. Environmental Report. Rep. from Ebasco Services Incorporated, Bellevue, Washington.
- Hunter, M. A. 1992; Hydropower flow fluctuations and salmonids: a review of the biological effects, mechanical causes, and options for mitigation. State of Washington Department of Fisheries. Technical Report No. 119.
- KHL (Kenai Hydro, LLC). 2015a. Grant Lake Hydroelectric Project (FERC No. 13212), Draft License Application. March 2015.
- KHL. 2015b. Grant Lake Hydroelectric Project (FERC No. 13212), Draft Biotic Monitoring Plan. June 2015.
- Thompson, K. 1972. Determining Stream Flows for Fish. Presented at Instream Flow Requirement Workshop, Pacific Northwest River Basins Commission. March 1972.
- USFWS (U.S. Fish and Wildlife Service). 1961. Ptarmigan and Grant Lakes and Falls Creek, Kenai Peninsula, Alaska, progress report on the fish and wildlife resources. Department of the Interior. Juneau, Alaska.
- Johnson, J., and M. Daigneault. 2008. Catalogue of waters important for spawning, rearing, or migration of anadromous fishes – Southeastern Region, Effective June 2, 2008. Alaska Department of Fish and Game, Special Publication No. 08-06, Anchorage, AK.

Grant Lake Hydroelectric Project (FERC No. 13212)
Grant Lake Project Aquatic Resource Work Group Meeting
January 13, 2016
Aspen Suites Hotel, 100 E. Tudor Rd., Anchorage, AK
9:00am to 3:00pm

9:00am – 9:30am

- **Introductions and Agenda (M. Salzetti/C. Warnock)**
 - Introductions
 - Progress summary
 - Meeting intent
 - Agenda

9:30am – 11:30am

- **Biotic Monitoring Plan Review (M. Salzetti/C. Warnock)**
 - Stakeholder comments and associated KHL responses
 - Document review
 - Outstanding items/questions

11:30am – 12:30pm

- **Lunch**

12:30pm – 2:00pm

- **Biotic Monitoring Plan Review (M. Salzetti/C. Warnock)**
 - Stakeholder comments and associated KHL responses
 - Document review
 - Outstanding items/questions

2:00pm – 3:00pm

- **Path Forward (M. Salzetti/C. Warnock)**
 - Next steps
 - Anticipated schedule for remainder of filing process
 - Global questions/comments

3:00pm

- **Adjourn**

Remote Connection Details

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Access Code: 902-606-885

Audio PIN: Shown after joining the meeting

Meeting ID: 902-606-885

Johnson, Laura

From: Warnock, Cory
Sent: Wednesday, January 13, 2016 7:50 PM
To: Sean Eagan - NOAA Federal
Cc: Johnson, Laura
Subject: RE: Grant Lake Biotic Monitoring Plan Comment Response Table

Thanks Sean, hope the call was helpful. If you have any follow-up questions, don't hesitate to let me know.

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Sean Eagan - NOAA Federal [mailto:sean.eagan@noaa.gov]
Sent: Wednesday, January 13, 2016 2:22 PM
To: Warnock, Cory <Warnock@mcmjac.com>
Subject: Re: Grant Lake Biotic Monitoring Plan Comment Response Table

Cory, I did drop off. I saw there was a break from 11:30 to 12:30 so at 11:45 I rushed out to complete an errand. I think it is a solid project and sure hope you get to construct it.

Sean

On Wed, Jan 13, 2016 at 1:08 PM, Warnock, Cory <Warnock@mcmjac.com> wrote:

Hi Sean,

Did you drop off for a bit? We finished up about 30 minutes ago. Meeting minutes to follow in the next week or so. Happy to discuss anything you may have missed or I'm sure Sue can catch you up.

Cory

On Jan 13, 2016, at 2:00 PM, Sean Eagan - NOAA Federal <sean.eagan@noaa.gov> wrote:

Cory,

what time are we starting back up? Sean

On Wed, Jan 13, 2016 at 12:36 PM, Warnock, Cory <Warnock@mcmjac.com> wrote:

Attached and per our meeting.

Cory Warnock

Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates

5771 Applegrove Ln | Ferndale, WA 98248

[360.384.2662](tel:360.384.2662) p | [360.739.0187](tel:360.739.0187) c

warnock@mcmjac.com

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Sean Eagan
Hydrologist
NOAA - National Marine Fisheries Service

P.O. Box 21668
709 W. 9th Street
Juneau, Alaska 99802-1668

[907-586-7345](tel:907-586-7345)
FAX: [907-586-7358](tel:907-586-7358)

--

Sean Eagan
Hydrologist
NOAA - National Marine Fisheries Service

P.O. Box 21668
709 W. 9th Street
Juneau, Alaska 99802-1668

[907-586-7345](tel:907-586-7345)
FAX: [907-586-7358](tel:907-586-7358)

Johnson, Laura

From: Warnock, Cory
Sent: Wednesday, January 13, 2016 7:49 PM
To: Susan Walker - NOAA Federal
Cc: 'Mike Salzetti'; Johnson, Laura
Subject: RE: Subseasonal to seasonal forecasting for water use planning

Hi Sue,

Thanks for this information. I will share it with Mike and get back to you with our combined thoughts related to pursuing this.

Appreciate your time today on the call and please don't hesitate to give me a call or shoot me an email if you have any questions/concerns.

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Susan Walker - NOAA Federal [mailto:susan.walker@noaa.gov]
Sent: Wednesday, January 13, 2016 1:42 PM
To: Warnock, Cory <Warnock@mcmjac.com>
Subject: Subseasonal to seasonal forecasting for water use planning

Hi Cory -

I think it was you on the phone today who was interested in NOAA's subseasonal to seasonal forecasting efforts that I mentioned. Here is a recent presentation for California which provides a good overview of the topic. NOAA's Earth Systems Research Laboratory, Physical Science Division is working to bring these tools the CA's Russian River as sort of an adaptive management tool to optimize water planning and use.

http://www.water.ca.gov/waterconditions/docs/Seasonal-Forecasting-Workshop-Report_web.pdf

Let me know if you are interested in pursuing this more. For now Alaska does have climate predictions available along with probabilities associated with these predictions (http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=4).

As is common and certainly no surprise to you, the data-poor nature of remote Alaska is limiting.

--
Sue Walker
NMFS Hydropower Coordinator
Alaska Region

P.O. Box 21668
709 W. 9th Street
Juneau, Alaska 99802-1668

907-586-7646
FAX: 907- 586-7358

The line of life is a ragged diagonal between duty and desire.

Johnson, Laura

From: Warnock, Cory
Sent: Friday, January 15, 2016 10:32 PM
To: Miller, Monte D (DFG); 'Mike Salzetti' (msalzetti@HomerElectric.com)
Cc: Johnson, Laura
Subject: RE: Gravel Studies

Thanks Monte. We'll look through these and prepare to amend the BMP both per the relevant methodologies incorporated here and our follow-up chat in a couple weeks. Thanks again for your participation on Wednesday. I thought it was a very productive meeting.

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Miller, Monte D (DFG) [mailto:monte.miller@alaska.gov]
Sent: Friday, January 15, 2016 1:02 PM
To: 'Cory Warnock' (cory.warnock@mcmillen-llc.net) <cory.warnock@mcmillen-llc.net>; 'Mike Salzetti' (msalzetti@HomerElectric.com) <msalzetti@HomerElectric.com>
Subject: Gravel Studies

FYI

Attached are some articles/reports of gravel augmentation or replacements that have been done in the US and Canada.

This is sent in response to the Grant Lake Biologic Monitoring Plan review meeting held January 13, 2016.

Monte D. Miller
Statewide FERC Hydropower Coordinator
Alaska Department of Fish and Game
Division of Sport Fish / RTS
333 Raspberry Road
Anchorage, Alaska, 99518-1565

(907) 267-2312

Johnson, Laura

From: Klein, Joseph P (DFG) <joe.klein@alaska.gov>
Sent: Thursday, January 21, 2016 4:34 PM
To: Warnock, Cory
Cc: Miller, Monte D (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: RE: Reach 1 Distributary Data (Grant Lake)

Just notice the second sentence should read, "I did not find... ". Sorry for the omission, my proof-reading skills need work. Joe

From: Klein, Joseph P (DFG)
Sent: Thursday, January 21, 2016 3:28 PM
To: 'Warnock, Cory'
Cc: Miller, Monte D (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: RE: Reach 1 Distributary Data (Grant Lake)

Cory-

Thanks for the follow up. Monte was able to download a copy of the design document, "Preliminary Supporting Design Report" March 2015, referenced in the meeting.

I did find any additional information related to the proposed reach 1 distributary modification, except for what is described in the Draft Biotic Monitoring Plan (Plan). I reviewed the Design Report, Instream Flow Study report, and the DLA. There are cross sectional data and modeling results for transects 100 and 110 included with the Instream Flow Study report, but these relate to available fish habitat in the distributary under existing conditions.

However, I believe the information contained in the Plan is a good start and may only need to include further clarification, for example:

- On page 26, section 5.1, the Plan states that it will remove the upstream control; it would be helpful if a more detailed description was provided of what is specifically is being proposed, i.e., will this only include removal of the logs and associated large woody debris or will it also include excavation to the channel entrance?
- In that same section, it describes a range of flows to achieve optimal WUA; I had a little difficulty confirming this statement. Figures A.5b-1 to A.5b-6 in the Instream Flow Study report only showed WUA graphs for flows from 0 - 10 cfs. However, figures A.4b-1 to A.4b-2 did show WSE up to 20 cfs. It would also be informative to have similar graph for velocities over the same range of flows.
- In section 5.3.3.2.2, the Plan states that KHL will evaluate flow rates and velocities within these reaches (the distributary and reach 2/3 side channels) for one year following initiation of project operations. Presumably, this is after the upstream distributary mouth has been modified but this should be clearly stated.
- I was not involved with selection of transect locations and thereby do not know the exact locations of transect T100 and more importantly, T110. Is T110 located on the control at the upstream mouth or just downstream from it? Figure 4.2-1 shows the entire study area and it difficult know exactly where transect T110 is located. It unclear if transect T110 help informs about the elevation of the control.
- If T110 is not on the control, how will you determine when you have provided sufficient conveyance to achieve the desired diversion flows?
- Lastly, it's my understanding a Fish Habitat Permit would be needed from our department for this work and that this review would occur just prior to the commencement of work activities. If so, it would seem best to finalize specific work details at that time and include other pertinent agency personnel and respective permitting authorities. For now, a conceptual approach would seem appropriate with sufficient detail to understand the proposal.

In general, we support using an adaptive management approach for biotic assessments, primarily due to the uncertainty of outcomes and that biotic systems and organisms are believed to do best with minimal interference from us. Hence, we prefer to increase flows to the distributary channel as a first step and monitor, as proposed. Then consult on the findings and decide what, if any, further actions may be needed.

Hope this helps, let me know if you have any questions.

Regards, Joe

Joe Klein, P.E.
Supervisor, Aquatic Resources Unit
Alaska Dept of Fish and Game
(907) 267-2148

From: Warnock, Cory [<mailto:Warnock@mcmjac.com>]
Sent: Tuesday, January 19, 2016 8:45 AM
To: Klein, Joseph P (DFG)
Cc: Miller, Monte D (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: Reach 1 Distributary Data (Grant Lake)

Hi Joe,

Per our meeting last week, I'm getting back to you in regard to your potential additional needs related to the Reach 1 distributary (WUA, habitat availability pre vs. post-project, etc.). Not sure if you've had a chance to look at everything that has been provided as part of the DLA, Instream Flow Report, BMP, etc., but when you identify additional data needs that you may have to fully assess the distributary and the benefit from the restoration KHL is proposing, please let me know and I'll get you what you need.

Thanks,

Cory

Cory Warnock
Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates
5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c
warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Friday, January 29, 2016 2:54 PM
To: Klein, Joseph P (DFG)
Cc: Miller, Monte D (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: RE: Reach 1 Distributary Data (Grant Lake)

Hi Joe and Monte,

Just reaching out to you again as I haven't heard about the need for a follow-up call related to the BMP. Let me know as you have time and I'll get something set up (if needed).

Thanks and have a good weekend.

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Warnock, Cory
Sent: Monday, January 25, 2016 1:30 PM
To: 'Klein, Joseph P (DFG)' <joe.klein@alaska.gov>
Cc: Miller, Monte D (DFG) <monte.miller@alaska.gov>; 'Mike Salzetti' <msalzetti@HomerElectric.com>; Johnson, Laura <ljohnson@mcmjac.com>
Subject: RE: Reach 1 Distributary Data (Grant Lake)

Hi Joe and thanks very much for the feedback. This is the type of information we needed to refine the BMP in advance of filing. Monte, I received your message late last week and assume that these are the types of details you wanted to go over. Would you still like to have a call to discuss these (and any other) topics? If so, happy to do it. In an effort to be as efficient as possible, let me know who, from a KHL perspective, you'd like to be on the call and I'll get it set up. If it is a relatively straight forward discussion that you think you and I can handle, no problem. If however there is anything more fundamental that you think Mike needs to be involved in, let me know. Obviously, I'll get everything relayed to him one way or the other so it's just a question of how structured you'd like to make it.

Thanks again to both of you for the time you put into attending the meeting and subsequently reviewing.

Talk soon,

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Klein, Joseph P (DFG) [<mailto:joe.klein@alaska.gov>]

Sent: Thursday, January 21, 2016 4:28 PM

To: Warnock, Cory <Warnock@mcmjac.com>

Cc: Miller, Monte D (DFG) <monte.miller@alaska.gov>; 'Mike Salzetti' <msalzetti@HomerElectric.com>; Johnson, Laura <ljohnson@mcmjac.com>

Subject: RE: Reach 1 Distributary Data (Grant Lake)

Cory-

Thanks for the follow up. Monte was able to download a copy of the design document, "Preliminary Supporting Design Report" March 2015, referenced in the meeting.

I did find any additional information related to the proposed reach 1 distributary modification, except for what is described in the Draft Biotic Monitoring Plan (Plan). I reviewed the Design Report, Instream Flow Study report, and the DLA. There are cross sectional data and modeling results for transects 100 and 110 included with the Instream Flow Study report, but these relate to available fish habitat in the distributary under existing conditions.

However, I believe the information contained in the Plan is a good start and may only need to include further clarification, for example:

- On page 26, section 5.1, the Plan states that it will remove the upstream control; it would be helpful if a more detailed description was provided of what is specifically is being proposed, i.e., will this only include removal of the logs and associated large woody debris or will it also include excavation to the channel entrance?
- In that same section, it describes a range of flows to achieve optimal WUA; I had a little difficulty confirming this statement. Figures A.5b-1 to A.5b-6 in the Instream Flow Study report only showed WUA graphs for flows from 0 - 10 cfs. However, figures A.4b-1 to A.4b-2 did show WSE up to 20 cfs. It would also be informative to have similar graph for velocities over the same range of flows.
- In section 5.3.3.2.2, the Plan states that KHL will evaluate flow rates and velocities within these reaches (the distributary and reach 2/3 side channels) for one year following initiation of project operations. Presumably, this is after the upstream distributary mouth has been modified but this should be clearly stated.
- I was not involved with selection of transect locations and thereby do not know the exact locations of transect T100 and more importantly, T110. Is T110 located on the control at the upstream mouth or just downstream from it? Figure 4.2-1 shows the entire study area and it difficult know exactly where transect T110 is located. It unclear if transect T110 help informs about the elevation of the control.
- If T110 is not on the control, how will you determine when you have provided sufficient conveyance to achieve the desired diversion flows?
- Lastly, it's my understanding a Fish Habitat Permit would be needed from our department for this work and that this review would occur just prior to the commencement of work activities. If so, it would seem best to finalize specific work details at that time and include other pertinent agency personnel and respective permitting authorities. For now, a conceptual approach would seem appropriate with sufficient detail to understand the proposal.

In general, we support using an adaptive management approach for biotic assessments, primarily due to the uncertainty of outcomes and that biotic systems and organisms are believed to do best with minimal interference from us. Hence, we prefer to increase flows to the distributary channel as a first step and monitor, as proposed. Then consult on the findings and decide what, if any, further actions may be needed.

Hope this helps, let me know if you have any questions.

Regards, Joe

Joe Klein, P.E.

Supervisor, Aquatic Resources Unit

Alaska Dept of Fish and Game
(907) 267-2148

From: Warnock, Cory [<mailto:Warnock@mcmjac.com>]
Sent: Tuesday, January 19, 2016 8:45 AM
To: Klein, Joseph P (DFG)
Cc: Miller, Monte D (DFG); 'Mike Salzetti'; Johnson, Laura
Subject: Reach 1 Distributary Data (Grant Lake)

Hi Joe,

Per our meeting last week, I'm getting back to you in regard to your potential additional needs related to the Reach 1 distributary (WUA, habitat availability pre vs. post-project, etc.). Not sure if you've had a chance to look at everything that has been provided as part of the DLA, Instream Flow Report, BMP, etc., but when you identify additional data needs that you may have to fully assess the distributary and the benefit from the restoration KHL is proposing, please let me know and I'll get you what you need.

Thanks,

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c
warnock@mcmjac.com

Johnson, Laura

From: Warnock, Cory
Sent: Thursday, January 28, 2016 2:24 PM
To: 'Monte Miller'; 'Joe Klein'; Jeffrey Anderson; 'Susan Walker'; Sean Eagan - NOAA Federal; 'pamela.russell@alaska.gov'; brian.blossom@alaska.gov; 'Katherine McCafferty (katherine.a.mccafferty2@usace.army.mil)'; Schade, David W (DNR); Daniel J. Hertrich; 'Ken Hogan'; 'kenailake@arctic.net'; 'mcooney@arctic.net'; Brockmann, Steve; across@fs.fed.us; Reese, Carl D (DNR)
Cc: 'Mike Salzetti'; Johnson, Laura
Subject: Grant Lake ARWG Draft Meeting Minutes
Attachments: Grant Lake ARWG Draft Meeting Minutes.pdf

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (ARWG):

Hi all,

Per our commitment, I am attaching a draft version of the Grant Lake Project ARWG Meeting Minutes from January 13, 2016. If you could please review and provide any feedback related to additions/revisions by February 4th (Thursday), it would be appreciated.

Thank you and please don't hesitate to let me know if you have any questions,

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates

5771 Applegrove Ln | Ferndale, WA 98248

360.384.2662 p | 360.739.0187 c

warnock@mcmjac.com

From: Warnock, Cory
Sent: Friday, January 29, 2016 6:51 PM
To: 'Sean Eagan - NOAA Federal' <sean.eagan@noaa.gov>; Susan Walker - NOAA Federal <susan.walker@noaa.gov>
Subject: RE: Grant Lake ARWG Draft Meeting Minutes

Thanks Sean.

Cory

Cory Warnock
Senior Licensing and Regulatory Specialist

5771 Applegrove Ln | Ferndale, WA 98248
360.384.2662 p | 360.739.0187 c | warnock@mcmjac.com

From: Sean Eagan - NOAA Federal [<mailto:sean.eagan@noaa.gov>]
Sent: Friday, January 29, 2016 4:17 PM
To: Warnock, Cory <Warnock@mcmjac.com>; Susan Walker - NOAA Federal <susan.walker@noaa.gov>
Subject: Re: Grant Lake ARWG Draft Meeting Minutes

Cory,

Your note taker should be commended. The notes do an excellent job of capturing what was said and NMFS appreciates that Kenai Hydo went the extra mile to have that monitoring meeting.

Sean

On Thu, Jan 28, 2016 at 1:24 PM, Warnock, Cory <Warnock@mcmjac.com> wrote:

Grant Lake Hydroelectric Project (FERC No. 13212) Aquatic Resource Work Group Members (ARWG):

Hi all,

Per our commitment, I am attaching a draft version of the Grant Lake Project ARWG Meeting Minutes from January 13, 2016. If you could please review and provide any feedback related to additions/revisions by February 4th (Thursday), it would be appreciated.

Thank you and please don't hesitate to let me know if you have any questions,

Cory

Cory Warnock

Senior Licensing and Regulatory Specialist

McMillen Jacobs Associates

5771 Applegrove Ln | Ferndale, WA 98248

[360.384.2662](tel:360.384.2662) p | [360.739.0187](tel:360.739.0187) c

warnock@mcmjac.com

--

Sean Eagan
Hydrologist
NOAA - National Marine Fisheries Service

P.O. Box 21668
709 W. 9th Street
Juneau, Alaska 99802-1668

[907-586-7345](tel:907-586-7345)
FAX: [907-586-7358](tel:907-586-7358)

From: Warnock, Cory
Sent: Tuesday, February 09, 2016 2:41 PM
To: 'Miller, Monte D (DFG)'
Subject: RE: Grant Lake BMP Comments

Hi Monte,

Thanks for the note. I'm still with the project and serving the same role. Mike forwarded me your comments so we are all good.

Thanks!

Cory Warnock
D 360.384.2662 M 360.739.0187

hdrinc.com/follow-us

From: Miller, Monte D (DFG) [<mailto:monte.miller@alaska.gov>]
Sent: Tuesday, February 09, 2016 2:22 PM
To: Warnock, Cory
Subject: RE: Grant Lake BMP Comments

Corey,

I was not sure if you were still with the project....Did you get the letter and comments I sent to Mike yesterday? If not, I can send to you as well...

Also, Sean Eagan (NMFS) asked me today if he could send comments and I advised him to contact Mike.....

Monte D. Miller
Statewide FERC Hydropower Coordinator
Alaska Department of Fish and Game
Division of Sport Fish / RTS
333 Raspberry Road
Anchorage, Alaska, 99518-1565

(907) 267-2312

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]
Sent: Tuesday, February 09, 2016 11:42 AM
To: Miller, Monte D (DFG); Klein, Joseph P (DFG)
Cc: Salzetti, Mikel; Johnson, Laura
Subject: Grant Lake BMP Comments

Hi Monte and Joe,

Just wanted to drop you a quick note and say thank you for all of your feedback on the Biotic Monitoring Plan for the Grant Lake Project. We have revised the document and incorporated your suggested revisions/comments into the document. Fundamental modifications included:

- The removal of any gravel augmentation associated with initial project construction/operations

- Modification of sediment sampling regime from baseline (construction) and first 3 years to baseline (construction) and years 5 and 10 of operations
- Significant text revisions associated with the overall sediment /flushing flow analyses
- Additional documentation associated with the collaborative process related to sediment/flushing flow analyses
- Commitment of 3 surveys per year for each adult spawning species (Chinook, sockeye and coho) during year 1 of construction and years 2 and 5 of operations.

The bullets above are just a snapshot of the more substantive issues. Again, all comments/revisions were reviewed and incorporated. We are currently in the process of reviewing the document from an editorial and structural perspective and will then be modifying Exhibit E of the FLA accordingly. Once we have the BMP finalized and prior to filing of the FLA, I will be proactively sending you a final version of the BMP for your files.

Again, thank you for all of your participation and collaboration on the development of this document to say nothing for the global collaboration with everything related to the Grant Lake Project. As always, let me know if you need anything or have any questions; always available to chat or email as needed.

Thanks,

Cory

[Cory Warnock](#)

Regulatory & Environmental Project Manager

HDR

5771 Applegrove Ln

Ferndale, Wa. 98248

D 360.384.2662 **M** 360.739.0187

cory.warnock@hdrinc.com

hdrinc.com/follow-us

From: Warnock, Cory
Sent: Wednesday, March 09, 2016 11:18 AM
To: 'Kenneth Hogan'
Cc: Salzetti, Mikel
Subject: RE: Grant Lake

Hi Ken,

We are still shooting for the end of March and think that is still realistic (may bleed into April a bit). We are literally at final review of most of our Exhibits/Plans with the outstanding items list dwindling significantly. My plan is to give you a heads-up about a week before we anticipate filing. Does that work? Happy to provide more lead time or notify you however you'd prefer.

Thanks!

Cory Warnock
D 360.384.2662 M 360.739.0187

hdrinc.com/follow-us

From: Kenneth Hogan [<mailto:Kenneth.Hogan@ferc.gov>]
Sent: Wednesday, March 09, 2016 11:10 AM
To: Warnock, Cory
Cc: Salzetti, Mikel
Subject: RE: Grant Lake

Anything new to report on the ETA?

Kenneth Hogan | Fishery Biologist | [Federal Energy Regulatory Commission](http://www.ferc.gov) | 888 First Street, N.E., Washington, DC 20426 | 202-502-8434 |

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]
Sent: Thursday, February 04, 2016 4:10 PM
To: Kenneth Hogan
Cc: Salzetti, Mikel
Subject: RE: Grant Lake

Hi Ken,

I think to be on the safe side, I'd prefer you be thinking March. While February is still possible and we are getting very close but we also want it to be right when it comes your way.

Happy to discuss further if needed.

Cory Warnock
D 360.384.2662 M 360.739.0187

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From: Kenneth Hogan [<mailto:Kenneth.Hogan@ferc.gov>]
Sent: Thursday, February 04, 2016 12:31 PM
To: Warnock, Cory
Subject: Grant Lake

Cory,

Do you still think the FLA will be this month?

Ken

Kenneth Hogan | Fishery Biologist | [Federal Energy Regulatory Commission](#) | 888 First Street, N.E.,
Washington, DC 20426 | 202-502-8434 |

Johnson, Laura

From: Warnock, Cory <Cory.Warnock@hdrinc.com>
Sent: Wednesday, March 23, 2016 3:50 PM
To: Kenneth Hogan
Cc: Salzetti, Mikel; Johnson, Laura
Subject: RE: Filing Question

Thanks Ken. That 2 week number is very close!!

Cory Warnock
D 360.384.2662 M 360.739.0187

hdrinc.com/follow-us

From: Kenneth Hogan [mailto:Kenneth.Hogan@ferc.gov]
Sent: Wednesday, March 23, 2016 3:50 PM
To: Warnock, Cory
Cc: Salzetti, Mikel; Johnson, Laura
Subject: RE: Filing Question

Cory, no such letter is needed or required.

2 weeks out? ☺

Kenneth Hogan | Fishery Biologist | [Federal Energy Regulatory Commission](http://www.federalenergyregulatory.com) | 888 First Street, N.E., Washington, DC 20426 | 202-502-8434 |

From: Warnock, Cory [mailto:Cory.Warnock@hdrinc.com]
Sent: Wednesday, March 23, 2016 5:52 PM
To: Kenneth Hogan
Cc: Salzetti, Mikel; Johnson, Laura
Subject: Filing Question

Hi Ken,

We are getting closer to filing (not one week out yet!! ☺). As such, I wanted to touch base with you on an item that Mike and I are both curious about. We've seen past FLA filings be accompanied by a board resolution from the project proponent essentially confirming its desire for and investment in the project and the associated license application. I want to make sure that our assumption that this step in other LA's is a voluntary one and not required. If that latter is true, that is obviously not an issue at all but we want to know now so that Mike can immediately get in touch with the board and have such a resolution developed so as to not impact the filing timing due to waiting for such a write-up at the last minute.

Your input is appreciated and I'll keep you posted on our anticipated filing date.

Thanks!

Cory Warnock
Regulatory & Environmental Project Manager

HDR
5771 Applegrove Ln
Ferndale, Wa. 98248
D 360.384.2662 M 360.739.0187
cory.warnock@hdrinc.com

hdrinc.com/follow-us

Johnson, Laura

From: Warnock, Cory <Cory.Warnock@hdrinc.com>
Sent: Tuesday, April 05, 2016 9:52 AM
To: Kenneth Hogan
Cc: Salzetti, Mikel; Johnson, Laura
Subject: Grant Lake Project (P-13212) FLA

Hi Ken,

The email you've been waiting for !! ☺

Per our previous discussions I wanted to drop you a note and let you know that unless something significant comes up, KHL will be filing its Final License Application for the Grant Lake Project next week. To that end, I wanted to lay out our procedural plan for filing and hopefully get your confirmation (or revisions) for the plan in an effort to make sure we do everything by the book.

KHL will:

- eFile the FLA in 3 volumes
 - Public
 - Privileged
 - CEII
- Mail 1 original and 8 copies of the FLA to the Secretary
- Mail a copy to the Regional FERC Engineer in Portland, Oregon
- Mail a CD of the public volume of the FLA to specified stakeholders
- Email all remaining identified interested parties and notify them of FLA availability both on eLibrary and KHL's website
- Publish two notices of FLA filing with the Peninsula Clarion newspaper within 14 days of eFiling
- Distribute a copy to an appropriate Kenai Peninsula public library

Am I missing anything?

Additionally and with respect to a the items above I have a couple questions:

1. When we filed/distributed the DLA for comment, we mailed out 52 CD's to stakeholders and notified another 90 or so that the DLA was available on eLibrary and the KHL website. We would prefer not to distribute that many CD's again and simply notify more individuals of its availability online. We'd obviously get versions of the document to heavily involved federal/state agencies and public but we'd like to avoid things like sending multiple copies to the same entity and rather trust that individuals within the same agency could distribute a copy of the FLA internally upon receipt. This would likely knock the number of CD's that were needed down to about 20 and facilitate a more global email notifying all parties of the FLA's availability online. From your standpoint, is this an ok approach? Ultimately, KHL has no problem generating as many CD's as is needed. As you know, filing time is a bit of a frenetic period and in an effort to be as efficient as possible, I just thought I'd get your perspective.
2. All of the paper versions we plan on mailing out will be in color and contain all the same detail that an electronic version would. Is there any restriction against making the text portions of the paper copies double-sided (where appropriate)?

I'm sure we'll be talking soon but thanks in advance for your input and please let me know if you have any additional questions.

Hope all is well,

Cory

Cory Warnock
Regulatory & Environmental Project Manager

HDR
5771 Applegrove Ln
Ferndale, Wa. 98248
D 360.384.2662 M 360.739.0187
cory.warnock@hdrinc.com

hdrinc.com/follow-us

Grant Lake Hydroelectric Project (FERC No. 13212) Licensing
Consultation Record

Phone/E-mail /One on One Meeting Log

Contact Name: Ken Hogan

Agency/Organization: FERC

Phone No./E-mail Address: 202-502-7313/kenneth.hogan@ferc.gov

Date: 4/5/16

Time: 11:00am

Grant Lake Licensing Team Contact: Cory Warnock

Summary of Conversation and/or E-mail Exchange: Cory Warnock had previously sent Mr. Hogan an email informing him that KHL was planning on filing the Grant Lake Final License Application (FLA) the following week (week of 4/11/16) and seeking confirmation that Mr. Warnock's plan for filing FLA was comprehensive and up to date with requirements. Based on the conversation, it was determined that two of the steps Mr. Warnock was planning on taking in the filing process were no longer necessary and/or had been modified per recent requirement modifications. As such, filing specifics for KHL's FLA were collaboratively modified to the bulleted list below:

- eFile the FLA in 3 volumes
 - Public
 - Privileged
 - CEII
- Mail 1 original and 2 copies of the FLA to the Secretary
- Mail a copy to the Regional FERC Engineer in Portland, Oregon
- Email all stakeholders and identified interested parties and notify them of FLA availability both on eLibrary and KHL's website
- Publish two notices of FLA filing with the Peninsula Clarion newspaper within 14 days of eFiling
- Distribute a copy to an appropriate Kenai Peninsula public library

The call lasted approximately 15 minutes.

Grant Lake Hydroelectric Project (FERC No. 13212) Licensing
Consultation Record

Phone/E-mail /One on One Meeting Log

Contact Name: Ken Hogan

Agency/Organization: FERC

Phone No./E-mail Address: 202-502-7313/kenneth.hogan@ferc.gov

Date: 4/6/16

Time: 1:00pm and 1:45pm

Grant Lake Licensing Team Contact: Cory Warnock

Summary of Conversation and/or E-mail Exchange: Cory Warnock called Mr. Hogan to inquire about the level of detail required in the FLA related to the consultation record. Mr. Warnock explained that the entirety of the consultation record was approximately 4,000 to 5,000 pages and was wondering if that level of detail needed to be provided in the FLA given that a summary table that generally described each individual record (approximately 54 pages) was also provided. Mr. Hogan stated that he needed to check with legal staff but did not think anything beyond the summary table was needed provided that the entirety of the record was made available electronically somewhere online like the KHL website.

Mr. Hogan then called Mr. Warnock back after speaking with legal and after a collaborative discussion related to the consultation contents of the FLA, it was determined that the combination of the DLA/Management Plan Comment Response Matrix, the Consultation Record Summary Table and “Any letters from the public containing comments and recommendations” along with making the entire consultation record available online would be acceptable for FLA submittal. Mr. Hogan followed up with an email citing specific regulations related to the discussion on 4/6/16 at 2:07pm PST.

The combined call length was approximately 15 minutes.

From: Warnock, Cory
Sent: Wednesday, April 06, 2016 2:32 PM
To: 'Kenneth Hogan'
Subject: RE: Consultation Documentation 4.38

Thanks Ken, this is perfect and your assumptions are all correct based upon my reading of the regs you provided. In addition to the DLA/MP Comment Response Matrix (Attachment E-1) and the Consultation Record Summary Table (Attachment E-2), we will include “Any resource agency's or Indian tribe's letters containing comments, recommendations, and proposed terms and conditions” and “Any letters from the public containing comments and recommendations”.

Thanks for the help!!

Cory Warnock
D 360.384.2662 M 360.739.0187

hdrinc.com/follow-us

From: Kenneth Hogan [<mailto:Kenneth.Hogan@ferc.gov>]
Sent: Wednesday, April 06, 2016 2:07 PM
To: Warnock, Cory
Subject: Consultation Documentation 4.38

Cory the following may be found within 18 CFR 4.38 (<https://www.law.cornell.edu/cfr/text/18/4.38>). I hope this helps, and from the sounds of it, you have already done 90% of this. My additional comments are in ***bold italic***.

(f) *Application requirements documenting consultation and any disagreements with resource agencies.* An applicant must show in Exhibit E of its [application](#) that it has met the requirements of paragraphs (b) through (d) and paragraphs (g) and (h) of this section, and must include a summary of the consultation process and:

(1) Any resource agency's or Indian tribe's letters containing comments, recommendations, and proposed terms and conditions;

(2) Any letters from the public containing comments and recommendations;

(3) Notice of any remaining disagreement with a resource agency or Indian tribe on: ***(this should be addressed in your comment response summary table)***

(i) The need for a study or the manner in which a study should be conducted and the applicant's reasons for disagreement, and

(ii) Information on any environmental protection, mitigation, or enhancement measure, including the basis for the applicant's disagreement with the resource agency or Indian tribe;

(4) Evidence of any waivers under paragraph (e) of this section; ***(I don't think you have any)***

(5) Evidence of all attempts to consult with a resource agency or Indian tribe, copies of related documents showing the attempts, and documents showing the conclusion of the second stage of consultation;

(6) An explanation of how and why the project would, would not, or should not, comply with any relevant comprehensive plan as defined in § 2.19 of this chapter and a description of any relevant resource agency or Indian tribe determination regarding the consistency of the project with any such comprehensive plan; *(I'm assuming this has its own section in the Exhibit E already)*

(7) A description of how the applicant's proposal addresses the significant resource issues raised at the joint meeting held pursuant to paragraph (b)(3) of this section; and *(You have probably already done this in your comment response summary table, if the table includes comments received during the Joint meeting).*

(8) A list containing the name and address of every federal, state, and interstate resource agency and Indian tribe with which the applicant consulted pursuant to paragraph (a)(1) of this section. *(sounds like this is done in the consultation summary that you have prepared).*

Kenneth Hogan | Fishery Biologist | [Federal Energy Regulatory Commission](#) | 888 First Street, N.E., Washington, DC 20426 | 202-502-8434 |

From: Van Massenhove, Katherine B -FS [<mailto:kvanmassenhove@fs.fed.us>]
Sent: Thursday, April 07, 2016 12:29 PM
To: Warnock, Cory
Subject: RE: Grant Lake Hydroelectric Project (P-13212) License Application Inquiry

Thanks Cory,
I will give the staff a heads up!



Kathy Van Massenhove
Special Uses Team Leader

Forest Service
Chugach National Forest

p: 907-743-9542
kvanmassenhove@fs.fed.us

161 East 1st Ave, Door 8
Anchorage, AK 99501
www.fs.fed.us



Caring for the land and serving people

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]
Sent: Wednesday, April 06, 2016 8:10 PM
To: Van Massenhove, Katherine B -FS <kvanmassenhove@fs.fed.us>
Cc: Johnson, Laura <ljohnson@mcmjac.com>
Subject: RE: Grant Lake Hydroelectric Project (P-13212) License Application Inquiry

Hi Kathy,

I hope you didn't think I was ignoring your inquiry. I was just waiting until we were a bit further along in the final development phase before I responded. Now that we are, I wanted to let you know that we plan on filing the FLA next week and will be following up shortly thereafter with an email to our distribution list letting everyone know that it has been filed and the respective locations for accessing the document.

Happy to discuss further if needed,

Cory

Cory Warnock
D 360.384.2662 M 360.739.0187

hdrinc.com/follow-us

From: Van Massenhove, Katherine B -FS [<mailto:kvanmassenhove@fs.fed.us>]
Sent: Thursday, March 31, 2016 3:26 PM
To: Warnock, Cory
Subject: RE: Grant Lake Hydroelectric Project (P-13212) License Application Inquiry

Hi Cory,
I'll still working on an answer to your question on the plans below.

Speaking of planning, so that we can prepare for the work, when you say the FLA will be filed quite soon what do you mean by quite soon? It would be helpful if we know that FLA is coming in April, or May, etc.

Thanks for any information on the FLA timeframe you can provide.



Kathy Van Massenhove
Special Uses Team Leader

Forest Service
Chugach National Forest

p: 907-743-9542
kvanmassenhove@fs.fed.us

161 East 1st Ave, Door 8
Anchorage, AK 99501

www.fs.fed.us



Caring for the land and serving people

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]

Sent: Wednesday, March 23, 2016 3:25 PM

To: Van Massenhove, Katherine B -FS <kvanmassenhove@fs.fed.us>; Keller, Peter C -FS <pckeller@fs.fed.us>

Cc: Salzetti, Mikel <MSalzetti@HomerElectric.com>; Johnson, Laura <ljohnson@mcmjac.com>

Subject: Grant Lake Hydroelectric Project (P-13212) License Application Inquiry

Hello Ms. Van Massenhove and Mr. Keller,

As I believe you are both aware, Kenai Hydro (KHL) is in the final stages of developing its Final License Application (FLA) for the Grant Lake Project and will be filing the document quite soon. As you are also likely aware, we have incorporated significant changes/additions to our license application since its draft form was reviewed by your agency (and other stakeholders). We have both incorporated a majority of the additional information requested and revised the document based upon respective comments received. To that end, we have incorporated your Preliminary 4(e) Terms and Conditions into the FLA but do have one question/request related to the "Resource Management Plans" listed under this section of your comments. A majority of your current list of requested plans are consistent with plans that we have either already developed (and you've reviewed) or will be developing per our commitment in the FLA after license issuance. I believe these plans are consistent with your requested plans with the distinction being either that the names are more specific to the Grant Lake Project and/or two plans have been coordinated into one. The deviation is pointed out below. If you could confirm my assumption with respect to these plans, I'd appreciate it.

- "Reservoir Management and Inundation Plan" - The Grant Lake version is entitled the "Operation Compliance Monitoring Plan" and accounts for water temperature monitoring and flows compliance in Grant Creek. Given no inundation will be occurring as a result of Project development and operations, this specific variable will not be addressed.
- "Hazardous Substances Plan" – The Grant Lake version is entitled the 'Hazardous Materials Containment/Fuel Storage Plan'
- "Fire Prevention Plan" - The Grant Lake version is entitled the 'Fire Prevention Plan' (Same)

- “Heritage Resource Protection Plan” – The Grant Lake Historic Properties Management Plan incorporates all measures to manage/protect historical/cultural artifacts
- “Vegetation Management Plan” - The Grant Lake version is entitled the ‘Vegetation Management Plan’ (Same)
- “Invasive Species Management Plan” - The Grant Lake version of this plan has been incorporated into the “Vegetation Management Plan”
- “Wildlife Mitigation and Monitoring Plan” - The Grant Lake version is entitled the ‘Avian Protection Plan’
- “Fish Mitigation and Monitoring Plan’ and “Aquatic Habitat Restoration and Monitoring Plan” - The Grant Lake version is entitled the “Biotic Monitoring Plan”. An additional plan related to a specific restoration measure is also proposed in the FLA and will be developed after license issuance.
- “Threatened, Endangered, Proposed for Listing and Sensitive Species Plan” - The Grant Lake version is entitled the ‘Vegetation Management Plan’ as no other TES species have been documented aside from a specific plant species. A “Biological Evaluation for Plants” was also developed.
- “Erosion and Sediment Control Plan” - The Grant Lake version is entitled the “Erosion and Sediment Control Plan” (Same)
- “Scenery Management Plan” – While no plan will specifically be developed for this given the lack of visual impact the Project will have (see FLA), measures have been incorporated into the FLA to mitigate for the limited visual modification that the Project will have on the natural environment.

Additionally, the remainder of your requested plans (“Solid Waste and Waste Water Plan and Spoil Disposal Plan” are internally required for any HEA project and will all be incorporated into the global “Construction Plan”, per your request.

Our table of “PM&E measures requested by stakeholders as part of DLA comments and KHL’s responses to those requests” documents our acceptance of all of your requested plans. I’m simply reaching out to you now to hopefully gain concurrence on this approach and let you know that we believe we have accepted all of your proposed plans in your Preliminary 4(e) Terms and Conditions, just in a bit different and more specific document convention than your global request outlines.

With Robert Stovall’s retirement, I believe you two are the appropriate parties to contact but if I’m mistaken or others need to be involved, please let me know. Additionally, if you have any other questions or would like to talk through the email a bit, feel free to give me a call.

Thanks!

Cory Warnock
Regulatory & Environmental Project Manager

HDR
 5771 Applegrove Ln
 Ferndale, Wa. 98248
 D 360.384.2662 M 360.739.0187
cory.warnock@hdrinc.com

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From: Warnock, Cory [mailto:Cory.Warnock@hdrinc.com]
Sent: Monday, April 11, 2016 9:03 AM
To: Kenneth Hogan <Kenneth.Hogan@ferc.gov>
Cc: Johnson, Laura <ljohnson@mcmjac.com>
Subject: FW: Grant Lake Project (P-13212) FLA Exhibit G Question

Hi Ken,

Just FYI (below). Due to my error on the initial email (.com instead of .gov) for Jim's address, you were dropped off the correspondence. I've sent way too many emails lately!! ☺

Based on the dialogue below, we have a path forward. Let me know if you have any questions/concerns.

Thanks!

Cory Warnock
D 360.384.2662 M 360.739.0187

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From: James Fargo [mailto:James.Fargo@ferc.gov]
Sent: Monday, April 11, 2016 8:25 AM
To: Warnock, Cory
Subject: RE: Grant Lake Project (P-13212) FLA Exhibit G Question

Sounds good—I'd just be a bit more general and give reasons why the boundary might change during the license proceeding besides any changes potentially required by FERC.

Otherwise, it will sound like you don't want to follow the stamp requirement for an original license because it probably shouldn't be a requirement of an original license.

From: Warnock, Cory
Sent: Monday, April 11, 2016 8:14 AM
To: 'James Fargo'
Subject: RE: Grant Lake Project (P-13212) FLA Exhibit G Question

Got it. Our thought process per the regs was that given it was an original license for an unconstructed project, it didn't really make sense to require stamped drawings until FERC review/approval had occurred since the potential exists for the boundary (or other features to change) as a result of that process. Based on this discussion, I think the approach that we'll likely take will be to note that the drawings are not stamped due to this being an unconstructed project pending FERC approval and ask for a deference until the data is acquired. Then upon license issuance, KHL would acquire the requisite data within the specified period. Will that work? To be clear, not having stamped drawings will not preclude license approval; it will just delay actual issuance until after stamped drawings are filed with FERC. Correct there too?

Thanks Jim and sorry for all the questions. As I mentioned to Ken (and you know), just trying to have all our i's dotted and t's crossed to allow for the most comprehensive FLA filing possible.

Cory Warnock
D 360.384.2662 M 360.739.0187

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From: James Fargo [<mailto:James.Fargo@ferc.gov>]
Sent: Monday, April 11, 2016 8:02 AM
To: Warnock, Cory
Subject: RE: Grant Lake Project (P-13212) FLA Exhibit G Question

Well good thing I asked. The stamp requirement is in sec 4.39 of the regs, which is referenced in sec 4.41. The requirement says all Exhibit G's need the stamp. However, from my talk, if you don't have the data yet to complete the drawings, you need to add a paragraph to the license application asking for the stamp requirement to be temporarily deferred until you acquire the data you need to complete the G drawings. (If still not complete at licensing, the Commission would not approved the drawings and you'd be required to complete them in a specified time.)

From: Warnock, Cory
Sent: Monday, April 11, 2016 7:46 AM
To: James Fargo
Subject: Re: Grant Lake Project (P-13212) FLA Exhibit G Question

Thanks Jim. Sounds like we're probably both reading things the same way and likely correct in our assumption. A confirmation would be great. Based on the reg, our plan is to file (this week) and follow up with a stamped version after license issuance.

On Apr 11, 2016, at 7:36 AM, James Fargo <James.Fargo@ferc.gov> wrote:

I realize my answer was a bit cloudy since it doesn't appear that the whole stamp thing made it into the regs yet. So, let me talk to the guy who developed this pesky stamp requirement before I confirm this.

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]
Sent: Monday, April 11, 2016 10:31 AM
To: James Fargo
Subject: Re: Grant Lake Project (P-13212) FLA Exhibit G Question

Thanks Jim. So to be clear, we are ok to file without stamped Exhibit G's with the understanding that we will circle back to this after license issuance and submit stamped versions. Is that correct?

Appreciate the input!

On Apr 11, 2016, at 7:21 AM, James Fargo <James.Fargo@ferc.gov> wrote:

Hi Cory,

I found the same sentence in the Commission's regulations (If accurate survey information is not available at the time the application is filed, the applicant must so state, and a tentative boundary may be submitted.)

Also, in Commission Staff guidance I found that for APPROVED exhibits (after license issuance) a stamp is needed when filing the Exhibit G's

I don't think the Commission regulations have been amended to reflect the stamp requirements.

Jim Fargo
202-502-6095

From: Warnock, Cory [<mailto:Cory.Warnock@hdrinc.com>]
Sent: Sunday, April 10, 2016 11:26 AM
To: James Fargo
Subject: FW: Grant Lake Project (P-13212) FLA Exhibit G Question

Hi James,

I just realized that I accidentally sent the email below to a .com address as opposed to your accurate .gov. I've been sending far too many email lately! As you have time, if you could provide some input to my inquiry below, I'd appreciate it.

Thanks!

Cory Warnock
D 360.384.2662 M 360.739.0187

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From: Warnock, Cory
Sent: Thursday, April 07, 2016 2:08 PM
To: 'james.fargo@ferc.com'
Cc: 'Kenneth Hogan'; 'Johnson, Laura'
Subject: Grant Lake Project (P-13212) FLA Exhibit G Question

Hi James,

Per recommendation from Ken (Cc'd), I'm reaching out to you with a quick question in advance of filing the FLA for Grant Lake next week. We are currently in the process of finalizing documents. With respect to Exhibit G, given the section of the regs quoted below and the fact that we are dealing with an original license for an unconstructed project, I wanted to verify with you that a surveyor stamp associated with Exhibit G drawings was not needed at this point.

Thanks in advance for any input you have in regard to my inquiry!

Cory Warnock

Source: "Managing Hydropower Project Exhibits: Guidance Document", August 2014.
<https://www.ferc.gov/industries/hydropower/gen-info/guidelines/drawings-guide.pdf>

This section of the guidelines document is addressing FPA, Part 4, Subpart E_Application for License for Major Unconstructed Project and Major Modified Project Sec. 4.41 Contents of application.

From Page 18, section 2:

Exhibit G Project boundary. The map must show a project boundary enclosing all project works and other features described under paragraph (b) of this section (Exhibit A) that are to be licensed. If accurate survey information is not available at the time the application is filed, the applicant must so state, and a tentative boundary may be submitted.

Cory Warnock
Regulatory & Environmental Project Manager

HDR
5771 Applegrove Ln
Ferndale, Wa. 98248
D 360.384.2662 M 360.739.0187
cory.warnock@hdrinc.com

hdrinc.com/follow-us