

From: [Wendy Loya](#)
To: [Karen Murphy](#); [Steve Berendzen](#)
Cc: [Paul Leonard](#); [Stephen Arthur](#); [Joshua Bradley](#)
Subject: RE: initial draft SOW for Arctic NWR data catalog etc..
Date: Friday, June 1, 2018 10:28:17 AM
Attachments: [Draft1 SOW Arctic Coastal Plain Data Catalog.docx](#)

Hi Steve A and Josh B,

Karen M drafted the attached statement of work for the data management contract we discussed (and sent it to Steve B, but good to have him in the loop too!). Please have a look and share your thoughts back, by phone with Karen or email would be great!

I think it looks good, I did change Refuge Manager to Refuge Supervisory Ecologist for the consultation parts.

Cheers,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Murphy, Karen <karen_a_murphy@fws.gov>
Sent: Friday, June 1, 2018 7:00 AM
To: Wendy Loya <wendy_loya@fws.gov>; Steve Berendzen <Steve_Berendzen@fws.gov>
Cc: Paul Leonard <paul_leonard@fws.gov>
Subject: initial draft SOW for Arctic NWR data catalog etc..

Hi Steve and Wendy,
Here is my first cut at capturing the potential scope of work to assist Arctic NWR in data organization and rescue. I was able to share most of this with Paul yesterday and incorporated his comments. I am working to see if we can broaden this out in a manner that would help the Region with its data management tasks, but that would have less focus on hard copy review/recovery than what I've written here. My intent would be to keep these components (or whatever we decide they should be) that are specific to Arctic so your comments on this draft would be very helpful.

I can work on this again on Monday or Tuesday next week but will be out Wed-Friday.

Have a good day,
Karen

Karen A Murphy
Science Applications
907-786-3501
karen_a_murphy@fws.gov

From: [Allen, Tim](#)
To: [Wendy Loya](#)
Cc: [Collins, Catherine](#)
Subject: scoping comments
Date: Friday, June 1, 2018 11:48:14 AM

Hi Wendy,

We'll need a short extension to provide comments on Air Quality. Our Branch Chief passed away unexpectedly and we've attended a number of other matters. We should be able to get our comments to you next week. Sorry for the delay...

Tim Allen

--

Tim Allen
U.S. Fish & Wildlife Service
(303) 914-3802

From: [Wendy Loya](#)
To: [John Trawick](#); [Drew Crane](#); [Doug Damberg](#); [Mitch Ellis](#); [Socheata Lor](#); [Sara Boario](#); [Andrea Medeiros](#); [Mary Colligan](#); [Lynnda Kahn](#); [Karen Clark](#); [Greg Siekaniec](#)
Subject: Fwd: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)
Date: Friday, June 1, 2018 2:20:02 PM
Attachments: [invite.ics](#)

SAE will be making a presentation for BLM and FWS regarding their mode of operations and proposed seismic exploration in the 1002 area. Webinar info forthcoming.

Drew and John, please forward to staff in your divisions that might be interested.

Wendy
Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

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

From: Joanna Fox <joanna_fox@fws.gov>
Date: Fri, Jun 1, 2018 at 12:00 PM
Subject: Fwd: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)
To: Wendy Loya <wendy_loya@fws.gov>

Hi Wendy,

Will you please share with key staff in the RO who might be interested in joining SAExploration's presentation Monday morning? I'll send additional details (the url) as soon as I receive them.

Thank you,
Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

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www.facebook.com/arcticnationalwildliferefuge

"Do what you can, with what you have, where you are." -- Theodore Roosevelt

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

From: Donna Wixon <dwixon@blm.gov>

Date: Fri, Jun 1, 2018 at 11:49 AM

Subject: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)

To: <joanna_fox@fws.gov>, <joshua_rose@fws.gov>, <stephanie_brady@fws.gov>, <njones@blm.gov>, <steve_berendzen@fws.gov>, <erin_carver@fws.gov>, <susan_lakomski@fws.gov>, <hollis_twitchell@fws.gov>, <tvosburgh@blm.gov>, <rkemnitz@blm.gov>, <mwhitman@blm.gov>, <bud_cribley@fws.gov>, <sheila_dufford@fws.gov>, <kdebenham@blm.gov>, <rgoodwin@blm.gov>, <edward_decleva@fws.gov>, <charles_hamilton@fws.gov>, <nheath@blm.gov>, <ted_swem@fws.gov>, <gilbert_castellanos@fws.gov>, <randy_j_brown@fws.gov>, <christopher_latty@fws.gov>, <stephen_arthur@fws.gov>, <jennifer_reed@fws.gov>, <chamfler@blm.gov>, <jkeeney@blm.gov>, <roger_kaye@fws.gov>, <patrick_odell@fws.gov>, <tmearns@blm.gov>, <greta_burkart@fws.gov>, <t75murph@blm.gov>, <slamarr@blm.gov>, <rbrumbau@blm.gov>, <dnigro@blm.gov>, <lbryant@blm.gov>, <sfritz@blm.gov>, <angela_matz@fws.gov>

SAExploration Presentation

[more details »](#)

SAExploration would like to give an on-line "skype" presentation to go over their proposed seismic action and answer some of the questions on the proposal that were submitted to them. I do not have the url for the meeting as of yet, but will let everyone know once we have it. I have reserved the Kobuk Room at BLM for anyone that would like to come here for the meeting.

When Mon Jun 4, 2018 10am – 12pm Alaska Time

Where BLM-AK FDO Kobuk Room, BLM-AK SO Bridge **b5-CIP** Passcode **b5-CIP**
BLM-AK FDO Steese White Mountains Conference Room ([map](#))

Video call **b5-CIP**

Calendar joanna_fox@fws.gov

Who

- dwixon@blm.gov - organizer
- joshua_rose@fws.gov
- stephanie_brady@fws.gov
- njones@blm.gov
- steve_berendzen@fws.gov
- erin_carver@fws.gov
- susan_lakomski@fws.gov
- hollis_twitchell@fws.gov
- tvosburgh@blm.gov
- rkemnitz@blm.gov
- mwhitman@blm.gov
- bud_cribley@fws.gov
- sheila_dufford@fws.gov
- kdebenham@blm.gov
- rgoodwin@blm.gov
- edward_decleva@fws.gov
- charles_hamilton@fws.gov

- nheath@blm.gov
- ted_swem@fws.gov
- gilbert_castellanos@fws.gov
- randy_j_brown@fws.gov
- joanna_fox@fws.gov
- christopher_latty@fws.gov
- stephen_arthur@fws.gov
- jennifer_reed@fws.gov
- chamfler@blm.gov
- jkeeney@blm.gov
- roger_kaye@fws.gov
- patrick_odell@fws.gov
- tmearas@blm.gov
- greta_burkart@fws.gov
- t75murph@blm.gov
- slamarr@blm.gov
- rbrumbau@blm.gov
- dnigro@blm.gov
- lbryant@blm.gov
- sfritz@blm.gov
- angela_matz@fws.gov

Going? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

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From: [Trawicki, John](#)
To: [Wendy Loya](#)
Subject: Re: Invitation: 1002 EIS Scoping Comments Review @ Fri Jun 8, 2018 9am - 10am (AKDT) (john_trawicki@fws.gov)
Date: Friday, June 1, 2018 4:02:08 PM

I spoke with Rick Lanctot this afternoon. He has been in the field and has not had a chance to enter his comments. Can we leave it open until noon Monday?

On Fri, Jun 1, 2018 at 11:43 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

1002 EIS Scoping Comments Review

[more details »](#)

I will close all-staff access to the scoping comments at COB today. I would then like to divide the sections among the three of us for first edits and potential additions if things are missing. We'll get together Friday to go through them as a team to discuss and ensure we haven't overlooked anything and that we don't have redundancy across sections. After we finish out edits, I'll send them through surnaming up to the RD level for delivery to BLM by June 19th.

When Fri Jun 8, 2018 9am – 10am Alaska Time

Where FWS-FW7 NWRS Conference Room/Regional Office ([map](#))

Calendar john_trawicki@fws.gov

Who

- wendy_loya@fws.gov - organizer
- john_trawicki@fws.gov
- drew_crane@fws.gov

Going? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

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Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#).

--
John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: RE: Draft Plan of Approvals for 1002 Deliverables.docx
Date: Friday, June 1, 2018 5:56:22 PM

Thank you! You too.

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>
Sent: Friday, June 1, 2018 3:54 PM
To: Wendy Loya <Wendy_loya@fws.gov>
Subject: Re: Draft Plan of Approvals for 1002 Deliverables.docx

Mt edits in Track changes- enjoy the sunny weekend.

On Fri, Jun 1, 2018 at 2:22 PM, Wendy Loya <Wendy_loya@fws.gov> wrote:

Hi Steve, Joanna, John T,

Attached is my first draft of our operations plan for review of future information that will be submitted to BLM. Please edit with tracked changes and if you can get comments back to me COB today, I'll finish up after hours and still send as a draft to ARDs and RD for further work.

Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503

0000008228

Work: (907) 786-3474
Mobile: (907) 360-1656

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George Bernard Shaw

From: [Lanctot, Richard](#)
To: [Wendy Loya](#)
Subject: Re: Request for Scoping Comments from FWS Staff for the Arctic Refuge Coastal Plain Leasing EIS
Date: Saturday, June 2, 2018 9:55:39 AM

Hi Wendy,

I added a section for migratory birds this morning. I am afraid I don't have any more time as I leave again for the field on Monday and will be gone through 30 June. I will be checking e-mail and will continue helping as I can.

I spoke with Eric yesterday about a possible SSP project that John Pearce, Dan Ruthrauff (both USGS), Chris Latty and I could conduct. Hopefully he will give it a chance to be considered by the RDT. I think we could definitely improve our PRISM surveys, improve the waterfowl detection ratios, and tag some birds to see movements from breeding to postbreeding areas.

Thanks for your continued support for migratory bird studies.

Cheers, Rick

Richard Lanctot, PhD
Region 7 Shorebird Coordinator
U.S. Fish and Wildlife Service
1011 East Tudor Road, MS 201
Anchorage, Alaska 99503
Ph: 907-786-3609
Fax: 907-786-3641
Cell: 907-440-9733
E-mail: richard_lanctot@fws.gov

"Hockey is Life - Keep your stick on the ice!" Unknown author

On Thu, May 10, 2018 at 1:28 PM, Wendy Loya <Wendy_loya@fws.gov> wrote:

Dear colleagues,

Thank you to those of you that were able to participate in the BLM Scoping meeting for Cooperating Agencies on May 3rd, and for sharing your expertise with the EIS Project Manager (Nicole Hayes) and contractor (EMPSi) and sub-contractors (ABR, Steven R Braund & Assoc, Northern Economics, ABR, HDR and DOWL).

Although the contractor took notes, including detailed notes on a laptop and more generalized notes on flip charts, the FWS has decided to submit written scoping comments. We invite you to submit concise, substantive comments on issues within or related to your area of expertise that should be considered for evaluation in the EIS. We especially want to highlight the most pressing issues and unique nature of the Arctic Refuge that should be described and evaluated. See the google doc for more info.

Please enter your comments in the following Google Doc (please do not delete others' comments): https://docs.google.com/document/d/1sZhCAKBC7m0E6HUF_60kSCVJY7xn6lANn1hwZUxW-y4/edit#heading=h.gjdgxs

Please have your comments entered by June 1. Let your division point of contact know ASAP if that date is unattainable and we'll try to make alternative plans for receiving your comments. The program points of contact will review entries for duplication or clarity and submit to the Regional Director for signature and submission by the June 19th scoping deadline.

For your information the Service provided the BLM and EMPSi a PDF binder of the Resource Assessments and Select FWS Bibliography, which you can access here: https://drive.google.com/file/d/1_124q-WQ6QnPehIZa84yENIxM4UPnzp-/view?usp=sharing

Again, thank you all!

Wendy (Regional POC)

Steve & Joanna (Arctic Refuge)

John Trawicki (NWRS)

Drew Crane (FES)

Carl Johnson (OSM)

Eric Taylor (MBM)

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Butteri, Peter](#)
To: [Wendy Loya](#)
Cc: [Tom St. Clair](#)
Subject: Re: Request for Scoping Comments from FWS Staff for the Arctic Refuge Coastal Plain Leasing EIS
Date: Tuesday, May 15, 2018 10:39:19 AM

I entered my comments relevant to wildland fire and cumulative effects. I am not sure what division I am in or who my division point of contact is. It would be good if someone took a look to make sure I am on the right track. I didn't see a whole lot of other comments in the doc.

Peter Butteri
Fire Planning Specialist
USFWS Region 7/ BLM Alaska Fire Service

(w) 907-356-5874
(c) 907 350 4782

"Planning is an unnatural process; it is much more fun to do something. The nicest thing about not planning is that failure comes as a complete surprise, rather than being preceded by a period of worry and depression." --Sir John Harvey-Jones

On Thu, May 10, 2018 at 1:28 PM, Wendy Loya <Wendy_loya@fws.gov> wrote:

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Again, thank you all!

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Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Romero, Maria](#)
To: [Wendy Loya](#)
Subject: Note to Reviewer PIL - Seismic EA
Date: Monday, June 4, 2018 10:25:56 AM
Attachments: [NTR PIL.pdf](#)
[PIL-Seismic EA May 24 2018 ANWR final.docx](#)

Hello Wendy!

I hope you enjoyed the gorgeous weekend.

Would you please sign the Note to Reviewer and send it back to me.

Thank you,

Toni

Toni Romero

Executive Assistant to the Chief of Refuges
National Wildlife Refuge System
U.S. Fish and Wildlife Service
1011 East Tudor Rd., Mail Stop 225
Anchorage, Alaska 99503

Telephone: (907) 786-3354 | **Fax:** (907) 786-3998

e-mail: maria_romero@fws.gov

From: [Wendy Loya](#)
To: [John Trawicki](#); [Drew Crane](#); [Doug Damberg](#); [Mitch Ellis](#); [Socheata Lor](#); [Sara Boario](#); [Andrea Medeiros](#); [Mary Colligan](#); [Lynnda Kahn](#); [Karen Clark](#); [Greg Siekaniec](#)
Subject: CANCELLED: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)
Date: Monday, June 4, 2018 10:57:03 AM

The presentation by SAE was cancelled by BLM. Joanna did not have further information this morning about whether it would be rescheduled. I will let you know as I hear more, and please let your colleagues know if you had forwarded the invite.

Thank you, hope everyone had a great weekend,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Friday, June 1, 2018 12:20 PM
To: John Trawicki <john_trawicki@fws.gov>; Drew Crane <drew_crane@fws.gov>; Doug Damberg <doug_damberg@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Sara Boario <sara_boario@fws.gov>; Andrea Medeiros <andrea_medeiros@fws.gov>; Mary Colligan <mary_colligan@fws.gov>; Lynnda Kahn <lynnda_kahn@fws.gov>; Karen Clark <karen_clark@fws.gov>; Greg Siekaniec <greg_siekaniec@fws.gov>
Subject: Fwd: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)

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Wendy
Dr. Wendy M. Loya, Coordinator
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US Fish and Wildlife Service
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Date: Fri, Jun 1, 2018 at 12:00 PM
Subject: Fwd: Invitation: SAExploration Presentation @ Mon Jun 4, 2018 10am - 12pm (AKDT) (joanna_fox@fws.gov)

To: Wendy Loya <wendy_loya@fws.gov>

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Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
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To: <joanna_fox@fws.gov>, <joshua_rose@fws.gov>, <stephanie_brady@fws.gov>, <njones@blm.gov>, <steve_berendzen@fws.gov>, <erin_carver@fws.gov>, <susan_lakomski@fws.gov>, <hollis_twitchell@fws.gov>, <tvosburgh@blm.gov>, <rkemnitz@blm.gov>, <mwhitman@blm.gov>, <bud_cribley@fws.gov>, <sheila_dufford@fws.gov>, <kdebenham@blm.gov>, <rgoodwin@blm.gov>, <edward_decleva@fws.gov>, <charles_hamilton@fws.gov>, <nheath@blm.gov>, <ted_swem@fws.gov>, <gilbert_castellanos@fws.gov>, <randy_j_brown@fws.gov>, <christopher_latty@fws.gov>, <stephen_arthur@fws.gov>, <jennifer_reed@fws.gov>, <chamfler@blm.gov>, <jkeeney@blm.gov>, <roger_kaye@fws.gov>, <patrick_odell@fws.gov>, <tmeares@blm.gov>, <greta_burkart@fws.gov>, <t75murph@blm.gov>, <slamarr@blm.gov>, <rbrumbau@blm.gov>, <dnigro@blm.gov>, <lbryant@blm.gov>, <sfritz@blm.gov>, <angela_matz@fws.gov>

[more details »](#)

SAExploration Presentation

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When Mon Jun 4, 2018 10am – 12pm Alaska Time

Where BLM-AK FDO Kobuk Room, BLM-AK SO Bridge 4 **b5-CIP** Passcode **b5-CIP**,
BLM-AK FDO Steese White Mountains Conference Room ([map](#))

Video call **b5-CIP**

Calendar joanna_fox@fws.gov

- Who
- dwixon@blm.gov - organizer
 - joshua_rose@fws.gov
 - stephanie_brady@fws.gov
 - njones@blm.gov
 - steve_berendzen@fws.gov
 - erin_carver@fws.gov
 - susan_lakowski@fws.gov
 - hollis_twitchell@fws.gov
 - tvosburgh@blm.gov
 - rkemnitz@blm.gov
 - mwhitman@blm.gov
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 - stephen_arthur@fws.gov
 - jennifer_reed@fws.gov
 - chamfler@blm.gov
 - jkeeney@blm.gov
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 - patrick_odell@fws.gov
 - tmeares@blm.gov
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 - slamarr@blm.gov
 - rbrumbau@blm.gov
 - dnigro@blm.gov
 - lbryant@blm.gov
 - sfritz@blm.gov
 - angela_matz@fws.gov

Going? **Yes** - **Maybe** - **No** [more options »](#)

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From: [Joanna Fox](#)
To: [Wendy Loya](#); [John Trawicki](#); [Sarah Conn](#); [stephanie_bradu](#)
Subject: DRAFT Seismic EA - ready for your review
Date: Monday, June 4, 2018 12:48:28 PM

Good morning,

Our draft of the seismic EA affected environment chapter is ready for your review. It's been shared with the 4 of you at: [DRAFT Seismic EA - Chapter 3 Existing Condition](#).

My apologies for not getting this to you earlier this morning, but Steve Berendzen just finished his review. Feel free to contact me or anyone on the writing team with questions.

Thank you,
Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

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www.facebook.com/arcticnationalwildliferefuge

“Do what you can, with what you have, where you are.” -- Theodore Roosevelt

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Re: FWS Coastal Plain Experts list
Date: Monday, June 4, 2018 2:41:35 PM

Hi Wendy,
Can you add a column and populate phone/emails for all the FWS contacts? I want to share with contractor.
Thanks!
Nicole

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

On Wed, May 16, 2018 at 9:27 AM, Wendy Loya <Wendy_loya@fws.gov> wrote:

I imagine we will update this over time; feel free to merge with your ongoing list.

https://docs.google.com/spreadsheets/d/1MVmyYrtQlKYrsWpUVEv9vrKkHfHSnKgaoaU8_1dXbqI/edit?usp=sharing

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Berendzen, Steve](#)
To: [Joanna Fox](#); [Hollis Twitchell](#)
Cc: [Doug Damberg](#); [Loya, Wendy](#)
Subject: Fwd: Week 3 Itinerary - Venetie/Kaktovik/Washington, D.C.
Date: Monday, June 4, 2018 5:06:08 PM
Attachments: [Week 3 June11-June15 VEN KAK DC v1. docx.docx](#)

FYI - Itinerary for next weeks meetings.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Hayes, Miriam (Nicole)** <mnhayes@blm.gov>
Date: Mon, Jun 4, 2018 at 2:23 PM
Subject: Week 3 Itinerary - Venetie/Kaktovik/Washington, D.C.
To: Joseph Balash <joseph_balash@ios.doi.gov>, Greg Siekaniec <greg_siekaniec@fws.gov>, Karen Mouritsen <kmourits@blm.gov>, Michael Gieryic <mike.gieryic@sol.doi.gov>
Cc: Lesli Ellis-Wouters <lellis@blm.gov>, "Murphy, Ted" <t75murph@blm.gov>, "Nichelle (Shelly) Jones" <njones@blm.gov>, "Seidlitz, Joseph (Gene)" <gseidlit@blm.gov>, Jill Moran <jcmoran@blm.gov>, Tracie Lassiter <tracie_lassiter@ios.doi.gov>, Hilary Zarin <hzarin@blm.gov>, Jeff Brune <jbrune@blm.gov>, Michael Nedd <mnedd@blm.gov>, "Twitchell, Hollis" <hollis_twitchell@fws.gov>, Steve Berendzen <steve_berendzen@fws.gov>, Karen Clark <karen_clark@fws.gov>, Jeff Krauss <jkrauss@blm.gov>, Beverly Winston <bwinston@blm.gov>, Steven Wells <swells@blm.gov>, "Frost, Eileen" <efrost@blm.gov>, Leslie Rosenberger <rosenberger@blm.gov>, Stephen Wackowski <stephen_wackowski@ios.doi.gov>, Lesia Monson <lesia_monson@ios.doi.gov>

All,

Attached is the itinerary for next week as they stand TODAY. There are a few details that are still being finalized, however, meeting times and DOI flight times are confirmed so that travel to/from Fairbanks and to/from DC may be arranged.

Please let me know if you have any questions.

Nicole

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

0000008242

From: [Conn, Sarah](#)
To: [Wendy Loya](#)
Cc: [Drew Crane](#); [Mary Colligan](#)
Subject: Re: FW: Note to Reviewer PIL - Seismic EA
Date: Monday, June 4, 2018 5:52:16 PM
Attachments: [PIL-Seismic EA May 24 2018 ANWR final_SC.docx](#)

Hi Wendy,

I have a few concerns which I have added into the document in track changes.

Thanks,

Sarah

On Mon, Jun 4, 2018 at 8:35 AM, Wendy Loya <Wendy_loya@fws.gov> wrote:

Drew and Sarah,

I am not sure that it matters as the schedule will definitely change, already has changed, but are you both comfortable with the general timeline on page 6 as refers to MMPA and ESA? Drew, you had some comments previously and maybe things have continued to evolve as FES has been in discussion with SAE.

Thanks, let me know and I can request changes before it goes up to ARDs.

Thanks, and have a great week,

Wendy

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Romero, Maria <maria_romero@fws.gov>
Sent: Monday, June 4, 2018 8:26 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Note to Reviewer PIL - Seismic EA

Hello Wendy!

I hope you enjoyed the gorgeous weekend.

Would you please sign the Note to Reviewer and send it back to me.

Thank you,

Toni

Toni Romero

Executive Assistant to the Chief of Refuges

National Wildlife Refuge System

U.S. Fish and Wildlife Service

1011 East Tudor Rd., Mail Stop 225

Anchorage, Alaska 99503

Telephone: (907) 786-3354 | **Fax:** (907) 786-3998

e-mail: maria_romero@fws.gov

From: [Colligan, Mary](#)
To: [Conn, Sarah](#)
Cc: [Wendy Loya](#); [Drew Crane](#)
Subject: Re: FW: Note to Reviewer PIL - Seismic EA
Date: Monday, June 4, 2018 9:58:33 PM
Attachments: [PIL-Seismic EA May 24 2018 ANWR final_SC_MAC.docx](#)

I added a few questions and comments - bet you are sorry you copied me, right?

On Mon, Jun 4, 2018 at 3:52 PM, Conn, Sarah <sarah_conn@fws.gov> wrote:

Hi Wendy,

I have a few concerns which I have added into the document in track changes.

Thanks,

Sarah

On Mon, Jun 4, 2018 at 8:35 AM, Wendy Loya <Wendy_loya@fws.gov> wrote:

Drew and Sarah,

I am not sure that it matters as the schedule will definitely change, already has changed, but are you both comfortable with the general timeline on page 6 as refers to MMPA and ESA? Drew, you had some comments previously and maybe things have continued to evolve as FES has been in discussion with SAE.

Thanks, let me know and I can request changes before it goes up to ARDs.

Thanks, and have a great week,

Wendy

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Romero, Maria <maria_romero@fws.gov>
Sent: Monday, June 4, 2018 8:26 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Note to Reviewer PIL - Seismic EA

Hello Wendy!

I hope you enjoyed the gorgeous weekend.

Would you please sign the Note to Reviewer and send it back to me.

Thank you,

Toni

Toni Romero

Executive Assistant to the Chief of Refuges

National Wildlife Refuge System

U.S. Fish and Wildlife Service

1011 East Tudor Rd., Mail Stop 225

Anchorage, Alaska 99503

Telephone: (907) 786-3354 | **Fax:** (907) 786-3998

e-mail: maria_romero@fws.gov

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0000008246

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Collins, Catherine](#)
To: [Wendy Loya](#); [Tim Allen](#)
Subject: Re: Request for Scoping Comments from FWS Staff for the Arctic Refuge Coastal Plain Leasing EIS
Date: Tuesday, June 5, 2018 10:22:38 AM

Hi Wendy,

Thank you for the additional time to provide comments.

Tim and I have revised the FWS Scoping Google Doc by adding a few bullet points to the air section. Additionally, we added two comments that might provided additional clarification in the section These were someone else's comments and I didn't want to change them.

In the Rapid Response document - Air Section, could you please remove Tamara McCandless since she has passed away.

Please let me know if you have further questions or require additional clarification to the comments.

Thanks for allowing us the opportunity to review.

Catherine Collins and Tim Allen

Catherine Collins, Environmental Engineer
U.S. Fish and Wildlife Service
Branch of Air and Water Quality Resources
7333 W. Jefferson Ave., Suite 375
Lakewood, CO 80235-2034
303-914-3807
(303) 969-5444 fax
Catherine_Collins@fws.gov

On Fri, May 25, 2018 at 12:20 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Everyone,

Just a reminder that June 1st, which is next Friday, is the deadline for entering your comments into the Google Docs form. Thank you to those of you that have already done so!

See original email below for more info.

Thank you all, and I hope everyone has a great Memorial Day weekend.

Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

On Thu, May 10, 2018 at 1:28 PM Wendy Loya <Wendy_loya@fws.gov> wrote:

Dear colleagues,

Thank you to those of you that were able to participate in the BLM Scoping meeting for Cooperating Agencies on May 3rd, and for sharing your expertise with the EIS Project Manager (Nicole Hayes) and contractor (EMPSi) and sub-contractors (ABR, Steven R Braund & Assoc, Northern Economics, ABR, HDR and DOWL).

Although the contractor took notes, including detailed notes on a laptop and more generalized notes on flip charts, the FWS has decided to submit written scoping comments. We invite you to submit concise, substantive comments on issues within or related to your area of expertise that should be considered for evaluation in the EIS. We especially want to highlight the most pressing issues and unique nature of the Arctic Refuge that should be described and evaluated. See the google doc for more info.

Please enter your comments in the following Google Doc (please do not delete others' comments): https://docs.google.com/document/d/1sZhCAKBC7m0E6HUF_60kSCVJY7xn6lANn1hwZUxW-y4/edit#heading=h.gjdgxs

Please have your comments entered by June 1. Let your division point of contact know ASAP if that date is unattainable and we'll try to make alternative plans for receiving your comments. The program points of contact will review entries for duplication or clarity and submit to the Regional Director for signature and submission by the June 19th scoping deadline.

For your information the Service provided the BLM and EMPSi a PDF binder of the Resource Assessments and Select FWS Bibliography, which you can access here: https://drive.google.com/file/d/1_124q-WQ6QnPehIZa84yENIxm4UPnzp-/view?usp=sharing

Again, thank you all!

Wendy (Regional POC)

Steve & Joanna (Arctic Refuge)

John Trawicki (NWRS)

Drew Crane (FES)

Carl Johnson (OSM)

Eric Taylor (MBM)

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Romero, Maria](#)
Subject: RE: Note to Reviewer PIL - Seismic EA
Date: Tuesday, June 5, 2018 10:43:38 AM

Hi Toni,

This is stuck with me while I reconcile some comments from Marine Mammals and ensure it reflects the process for communications we are defining for the 1002 program.

Thank you,
Wendy

From: Romero, Maria [mailto:maria_romero@fws.gov]
Sent: Monday, June 4, 2018 8:26 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Note to Reviewer PIL - Seismic EA

Hello Wendy!

I hope you enjoyed the gorgeous weekend.

Would you please sign the Note to Reviewer and send it back to me.

Thank you,

Toni

Toni Romero
Executive Assistant to the Chief of Refuges
National Wildlife Refuge System
U.S. Fish and Wildlife Service
1011 East Tudor Rd., Mail Stop 225
Anchorage, Alaska 99503
Telephone: (907) 786-3354 | **Fax:** (907) 786-3998
e-mail: maria_romero@fws.gov

From: [Joanna Fox](#)
To: [Wendy Loya](#)
Cc: [Steve Berendzen](#)
Subject: Re: Seismic EA meeting today? update on PIL
Date: Tuesday, June 5, 2018 3:30:20 PM

Yes, we are meeting immediately after the 2pm meeting, so you and anyone else who would like can stay on the line.

Josh will be joining us today, and taking over as IDT Lead/Primary POC for the seismic EA.

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

Follow us on Facebook!
www.facebook.com/arcticonationalwildliferefuge

“Do what you can, with what you have, where you are.” -- Theodore Roosevelt

On Tue, Jun 5, 2018 at 1:22 PM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Fairbanks,

Do you have a meeting scheduled with BLM Arctic Field office today? If so, can you include me in a call-in if possible? Greg S would like me to track that process so we have consistency across programs.

Also, the PIL is going through review here still, Marine Mammals had comments on the timeline and Greg wants to make sure it meets the internal information sharing process we are working on describing for HQ/Sheehan. We'll talk about that at tomorrow's meeting at 1pm.

Thank you,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Lor, Socheata](#)
Subject: RE: DRAFT Budget
Date: Wednesday, June 6, 2018 11:34:41 AM
Attachments: [Copy of 2018_1002 operations plan v3 052918.xlsx](#)

Oops!

You are the only one that looked at it ☺ and caught that

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Lor, Socheata [mailto:socheata_lor@fws.gov]
Sent: Wednesday, June 6, 2018 9:06 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: DRAFT Budget

Hi Wendy,

The attachment is the draft plan of approvals, not the project budget? Did you mean to send the project table?

Soch

~~~~~  
*Socheata Lor, Ph.D.*  
*Deputy Assistant Regional Director - Region 7*  
*National Wildlife Refuge System*  
*U.S. Fish and Wildlife Service*  
*1011 E. Tudor Road*  
*Anchorage, AK 99503*  
*Office: 907.786.3420*  
*Cell: 907.891.6194*  
~~~~~

On Mon, Jun 4, 2018 at 1:19 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Here are the project expenses I currently have for Refuges, OSA and Mig Birds that are towards 1002. It includes FES projects that OSA has funded, but not any funding from FES. Yet? It does not include Arctic Refuge-level spending on research.

The goal today is to show how we are meeting the \$600K spending for Refuges and OSA,

to talk about projects that were not on submitted operational plan to ensure awareness towards collaboration and to discuss any projects not funded that would benefit from end of year funds if any of us have excess.

I have printed copies for this afternoon's chat at 2pm in the NWRS Conf Room.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Conn, Sarah](#)
To: [Wendy Loya](#)
Cc: [Crane, Drew](#); [Mary Colligan](#); [Patrick Lemons](#)
Subject: Re: Request direct edits to Project Initiation Letter
Date: Wednesday, June 6, 2018 4:00:19 PM
Attachments: [PIL-Seismic EA May 24 2018 ANWR final_SC_MAC_WML_SC.docx](#)

Hi Wendy,

As requested I edited the portion of the timeline / text referring to MMPA / section 7 in the Project Initiation Letter. There are a couple of unresolved comments from Mary still in track changes.

Thanks,

Sarah

On Wed, Jun 6, 2018 at 12:36 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Sarah,

From the call yesterday, it sounded like there was agreement with BLM that *at this point*, it would be reasonable to revise the Project Initiation Letter to reflect the goal of joint consultation for the EA and ESA and/or MMPA. Would you be able to do that in the attached document, incorporating the changes and removing comments that have been addressed?

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Johnson, Carl](#)
To: [Wendy Loya](#)
Subject: Scoping comments
Date: Wednesday, June 6, 2018 5:28:14 PM

Wendy,

I am out of the office with very limited Internet connectivity for the rest of the week. I can barely read and respond to email, let alone edit Google Docs. I cannot meet your deadline of editing the Coastal Plain EIS scoping comments by this coming Friday. The best I can do is look at it when I am back in the office on Monday.

Carl Johnson, J.D.
Supervisory Program Analyst
[Office of Subsistence Management](#)
1011 E. Tudor Road,
Anchorage, AK 99503
(907) 786-3676

Like us on [Facebook!](#)

From: [Wendy Loya](#)
To: [Bud Cribley](#)
Subject: Re: 4 questions/updates
Date: Wednesday, June 6, 2018 11:24:28 PM
Attachments: [Draft Plan of Approvals for 1002 Responses to BLM 060418.docx](#)

Hi Bud,

Here is the draft of our proposed plan for improving our control over internal and external documents related to the Coastal Plain EIS and EA. It will reduce the chance of draft documents being shared as final products as only the POCs, managers, myself and upwards will have the complete documents before a final is reviewed and sent. I will also try to control who has access to documents, like the seismic application and draft/final EIS and EA. I think we can still get broad interdisciplinary input while improving the quality of the documents we share. Definitely want to be at the table not in the dog house :)

Let me know what you think!
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

On Wed, Jun 6, 2018 at 5:36 PM Bud Cribley <bud_cribley@fws.gov> wrote:
Thank you Wendy for including me in these discussions.

Do you have more specifics on item 2?

Thanks again.

Bud

Sent from my iPhone

On Jun 6, 2018, at 6:54 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Accidently sent to your BLM address!

From: Wendy Loya [mailto:wendy_loya@fws.gov]
Sent: Wednesday, June 6, 2018 2:53 PM
To: 'greg_siekaniec@fws.gov' <greg_siekaniec@fws.gov>; 'karen_clark@fws.gov' <karen_clark@fws.gov>; Bud Cribley <bcribley@blm.gov>

Subject: 4 questions/updates

Hi Greg, Karen and Bud,

1) We talked about having weekly 1002 meetings with RDT and Bud, should I try to get that on the calendar for this Friday?

2) Is there any feedback from HQ on our proposal for future information sharing and quality control? I have begun to implement what was described.

3) Mary C mentioned that SAE ^{b5-DP}

[REDACTED]

ust putting this on your radar for your conversations with BLM, because to facilitate whatever activity occurs, both BLM and FWS need more info ASAP.

4) BLM Arctic Field Office indicated that another applicant has expressed interest in applying for a seismic permit

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Karen Clark](#)
Subject: RE: Action Item - Projects needing DOI approval
Date: Thursday, June 7, 2018 12:04:46 PM

Dear Karen and Greg,

We have a project entered in the Financial Assistance spreadsheet that needs approval by the Senior Advisor, DOI-PMB.

Line item 1637: Updated National Hydrography Data (DTS # 068085; new agreement)

Timeline: We need to submit the paperwork to our regional CGS office by June 29th in order to issue the agreement in FY18.

The agreement would be with St. Mary's University in Winona, MN, who is the primary organization doing NWI and NHD In Alaska.

This project is part to of the Region 7 operations plan submitted to Deputy Principal Sheehan and subsequent agency directed commitment of \$1.2 million dollars to go towards science needed to inform management of the DOI priority program for Oil and Gas Leasing in the Coastal Plain (1002 area) of the Arctic National Wildlife Refuge. Obtaining updated National Hydrology and National Wetlands Inventory maps will help FWS, BLM and the Army Corps of Engineers expeditiously process applications for exploration and development.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

Dear Karen and Greg,

We have two projects entered in the Financial Assistance spreadsheet that need approval by the Senior Advisor, DOI-PMB; both are part of the 1002 operational plan we submitted and which are part of the \$1.2 million commitment from NWRs and OSA.

Line item 1636: Vegetation Mapping for the Coastal Plain
Line item 1637 Updated National Hydrography Data

1. Timeline: We need to submit the paperwork to our regional CGS office by June 29th for both projects in order to issue the agreements in FY18
2. Rationale: These two projects are part to of the Region 7 operations plan submitted to Deputy Principal Sheehan and subsequent agency directed commitment of \$1.2 million dollars to go towards science needed to inform management of the DOI priority program for Oil and Gas Leasing in the Coastal Plain (1002 area) of the Arctic National Wildlife

Refuge. Obtaining updated landcover, National Wetlands Inventory and updated National Hydrology Database maps will help FWS, BLM and the Army Corps of Engineers expeditiously process applications for exploration and development.

Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: A couple of follow-up items
Date: Thursday, June 7, 2018 1:33:30 PM
Attachments: [CoastalPlains v1.2 20180604 FWS.pdf](#)

Hi Wendy,

1. You're correct in that the RFD will include ALL phases of potential O&G development from seismic to reclamation.
2. Attached is a draft schedule. We can discuss in our next meeting when the opportunities to comment and review draft documents will fit in. Please keep this schedule close hold as it has not been reviewed by BLM leadership and clearly is subject to change.
3. Hope to have a draft Alt Workshop agenda to you tomorrow.
4. Was there a separate and specific question related to the FWS FAQs? I'm unclear from the notes.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Re: A couple of follow-up items
Date: Thursday, June 7, 2018 5:54:45 PM

Thanks, Wendy. Did you get any feedback regarding regulations or policies pertaining to management of lands adjacent to native allotments?

Nicole Hayes

Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

On Thu, Jun 7, 2018 at 2:52 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Thank you Nicole, the schedule, which I will not distribute, is helpful in allowing me to advise approximate timelines for when staff need to be ready to review the draft EA.

I am looking forward to a rough draft of the Alternatives Workshop, as regional leadership needs to determine who should attend.

Number 1 answers Number 4 😊

Don't forget to cancel next Tuesday's meeting. I will be in Fairbanks Tuesday June 12th through Friday 22nd, but available by mobile or email.

Thanks,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Hayes, Miriam (Nicole) [mailto:mnhayes@blm.gov]

Sent: Thursday, June 7, 2018 11:33 AM

To: Wendy Loya <wendy_loya@fws.gov>

Subject: A couple of follow-up items

Hi Wendy,

1. You're correct in that the RFD will include ALL phases of potential O&G development from seismic to reclamation.
2. Attached is a draft schedule. We can discuss in our next meeting when the opportunities to comment and review draft documents will fit in. Please keep this schedule close hold as it has not been reviewed by BLM leadership and clearly is subject to change.
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4. Was there a separate and specific question related to the FWS FAQs? I'm unclear from the notes.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

[222 W. 7th Avenue #13](#)

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: I can do Vegetation with soils in 1002 Comments
Date: Friday, June 8, 2018 1:38:47 PM

Those can be combined into one, so I will do that 😊

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Crane, Drew](#)
To: [John Trawicki](#); [Wendy Loya](#)
Subject: example edits
Date: Friday, June 8, 2018 1:40:49 PM
Attachments: [Copy of FWS FES Review Scoping Comments Coastal Plain EIS 0518_DC edits.docx](#)

Hey there,

Attached are the changes I've made to the air quality and polar bear sections. It looks like a ton of edits, but most of it is moving things around and word smithing. Hope this helps!

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Fwd: [EXTERNAL] Coastal Plain: Draft Agenda for Alternatives Development Meeting
Date: Friday, June 8, 2018 4:35:41 PM
Attachments: [20180709_CoastalPlain_AltsWkshp_Agenda_Draft.docx](#)

From: [Crane, Drew](#)
To: [Wendy Loya](#)
Cc: [John Trawicki](#)
Subject: My edits on scoping comments
Date: Friday, June 8, 2018 5:21:23 PM
Attachments: [Copy of FWS FES Review Scoping Comments Coastal Plain EIS 0518_DC edits.docx](#)

Hi Wendy,

Attached are my edits to the scoping comments for my resource areas (which air quality really isn't one ;))

It looks like I edited the whole thing, but I a lot of it is moving stuff around or condensing issues. Let em know if you have any questions.

Thanks!

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Subject: Re: Figure in scoping comments
Date: Friday, June 8, 2018 6:07:53 PM

Wendy,

I created the figure using topo profiles from the 30m DEM.

Thanks,
Josh

On Fri, Jun 8, 2018 at 2:02 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hey Josh,

Did you do the soils comments and include this figure? I need to track down the citation... Help?

Thanks!

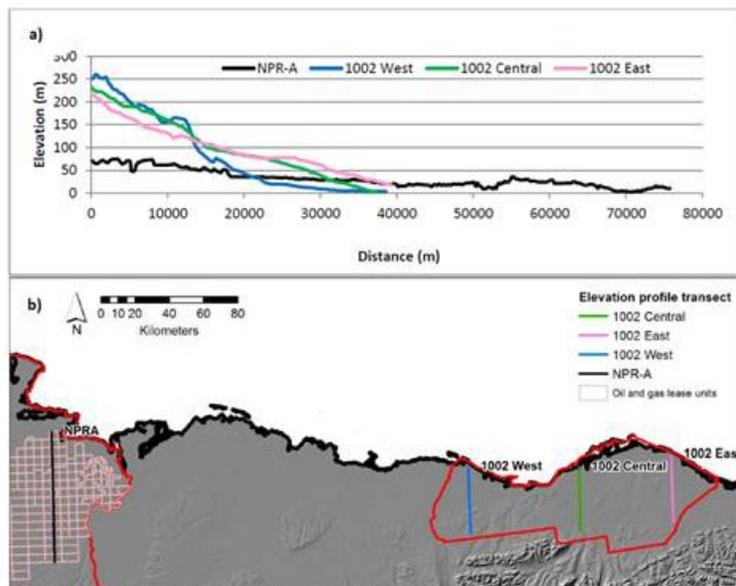


Figure 4: a) Hillslope profiles from the NPR-A and coastal plain 1002 areas. b) Location of hillslope profiles within the NPR-A and coastal plain 1002 areas.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Joshua Rose

Aquatic Ecologist

USFWS Region 7 I&M

101 12th Ave., Rm 216

Fairbanks, AK 99701

phone: (907) 456-0409

From: [Damberg, Doug](#)
To: [Kevin Doherty](#)
Cc: [Wendy Loya](#); [John Trawicki](#)
Subject: Internal 1002 alternatives workshop mtg June 19/20
Date: Monday, June 11, 2018 12:49:21 PM

Kevin:

We are having an internal (FWS) alternative workshop for the Arctic Refuge 1002 Coastal Plain EIS process June 19 and 20 in Fairbanks. Wendy Loya is coordinating the 1002 issues for the R7 FWS and she thought this would be a good meeting for you to participate in. It's not directly related to Yukon Flats, but this is all hands on deck and we think your expertise might be helpful for the process. Also, additional work could flow from this and your attendance would position you well to help out going forward. I extended the invitation to you on the calendar - check it out for additional information about the meeting. If you can only make one day, the first one would be the preferable.

Also, I'm cc'ing John Trawicki: John supervises our water resources branch for the region and he is also serving as the Refuge Program lead on the 1002 issues.

If you have any Qs, please let me know.

d

Doug Damberg
Refuge Supervisor, AK North Zone
U.S. Fish and Wildlife Service
1011 E. Tudor Rd.; Anchorage, AK 99503
Office: (907) 786-3329
Cell: (907) 947-6302

From: [Trawicki, John](#)
To: [Wendy Loya](#); [Drew Crane](#)
Subject: Authorities
Date: Monday, June 11, 2018 7:00:33 PM
Attachments: [List of Laws Regulations Related to Arctic Leasing and Ops.docx](#)
[Authorities Arctic National Wildlife Refuge.docx](#)

Wendy-

Document 1 are common authorities and other info.

Document 2 is a list of relevant regulation Ella Wagoner put together.

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Subject: Fwd: DS Memo on Cooperating Agency process
Date: Tuesday, June 12, 2018 9:54:34 AM
Attachments: [DS Memo Coop Agency Process.pdf](#)

Wendy - Has the MOU been signed between BLM and FWS for the 1002 EIS? If not, I think this guidance would take its place.

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

From: **Burns, Melissa** <melissa_burns@fws.gov>
Date: Mon, Jun 11, 2018 at 2:34 PM
Subject: Fwd: DS Memo on Cooperating Agency process
To: "Colligan, Mary" <mary_colligan@fws.gov>, "Wigglesworth, David" <david_wigglesworth@fws.gov>, Drew Crane <drew_crane@fws.gov>, Stewart Cogswell <stewart_cogswell@fws.gov>, Sarah Conn <sarah_conn@fws.gov>, "Henszey, Bob" <bob_henszey@fws.gov>, Douglass Cooper <douglass_cooper@fws.gov>

Hi All,

Please find the latest guidance on the cooperating agency process from the Deputy Secretary attached below. I received this memo from DOI locally, but was told it was distributed to national bureau contacts earlier today.

Let me know if you have any questions about the attached.

Thanks,

Melissa

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

From: Johnson, Philip <philip_johnson@ios.doi.gov>
Date: Mon, Jun 11, 2018 at 2:20 PM
Subject: DS Memo on Cooperating Agency process
To: Mark Storzer <mark.storzer@boem.gov>, Brooke Merrell <Brooke_Merrell@nps.gov>, Cheryl Martins <cheryl.martins@bia.gov>, Dee Williams <dmwilliams@usgs.gov>, Douglass Cooper <douglass_cooper@fws.gov>, Grace Cochon <grace_cochon@ios.doi.gov>, Joan Kluwe <joan_kluwe@nps.gov>, Linda Hasselbach <linda_hasselbach@nps.gov>, Melissa Burns <melissa_burns@fws.gov>, Michael Routhier <michael.routhier@sol.doi.gov>, Mike Gieryic <Mike.Gieryic@sol.doi.gov>, Serena Sweet <ssweet@blm.gov>, Stephanie Brady <stephanie_brady@fws.gov>

All,

Please find the latest guidance on the cooperating agency process attached below. This memo was distributed to national bureau contacts

earlier today.

Thank you,
Phil

Philip Johnson
Regional Environmental Officer - Alaska
U.S. Department of the Interior
1689 C Street, Suite 119
Anchorage, Alaska 99501-5126

907-271-5011 (Work Phone)
907-227-3783 (Work Cell)
907-271-5930 (Fax)

philip_johnson@ios.doi.gov

--

Melissa Burns
Regional Conservation Planning Coordinator
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3451

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Colligan, Mary](#)
Subject: Re: DS Memo on Cooperating Agency process
Date: Tuesday, June 12, 2018 9:57:37 AM

Hi Mary,

I believe the MOU should have left the ARD level by now and reached Karen and Greg. I will check in with them today.

FYI, I am in Fairbanks today through next Wednesday (at least) to prepare for the workshop. Will get an updated agenda out by Friday, hoping to find out if Soch secured a facilitator today.

Thank you,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 12, 2018, at 07:54, Colligan, Mary <mary_colligan@fws.gov> wrote:

Wendy - Has the MOU been signed between BLM and FWS for the 1002 EIS? If not, I think this guidance would take its place.

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

From: Burns, Melissa <melissa_burns@fws.gov>

Date: Mon, Jun 11, 2018 at 2:34 PM

Subject: Fwd: DS Memo on Cooperating Agency process

To: "Colligan, Mary" <mary_colligan@fws.gov>, "Wigglesworth, David" <david_wigglesworth@fws.gov>, Drew Crane <drew_crane@fws.gov>, Stewart Cogswell <stewart_cogswell@fws.gov>, Sarah Conn <sarah_conn@fws.gov>, "Henszey, Bob" <bob_henszey@fws.gov>, Douglass Cooper <douglass_cooper@fws.gov>

Hi All,

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Let me know if you have any questions about the attached.

Thanks,

Melissa

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From: Johnson, Philip <philip_johnson@ios.doi.gov>
Date: Mon, Jun 11, 2018 at 2:20 PM
Subject: DS Memo on Cooperating Agency process
To: Mark Storzer <mark.storzer@boem.gov>, Brooke Merrell <Brooke_Merrell@nps.gov>, Cheryl Martins <cheryl.martins@bia.gov>, Dee Williams <dmwilliams@usgs.gov>, Douglass Cooper <douglass_cooper@fws.gov>, Grace Cochon <grace_cochon@ios.doi.gov>, Joan Kluwe <joan_kluwe@nps.gov>, Linda Hasselbach <linda_hasselbach@nps.gov>, Melissa Burns <melissa_burns@fws.gov>, Michael Routhier <michael.routhier@sol.doi.gov>, Mike Gieryic <Mike.Gieryic@sol.doi.gov>, Serena Sweet <ssweet@blm.gov>, Stephanie Brady <stephanie_brady@fws.gov>

All,

Please find the latest guidance on the cooperating agency process attached below. This memo was distributed to national bureau contacts earlier today.

Thank you,
Phil

Philip Johnson
Regional Environmental Officer - Alaska
U.S. Department of the Interior
1689 C Street, Suite 119
Anchorage, Alaska 99501-5126

907-271-5011 (Work Phone)
907-227-3783 (Work Cell)
907-271-5930 (Fax)

philip_johnson@ios.doi.gov

--

Melissa Burns
Regional Conservation Planning Coordinator
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503

0000008275

907-786-3451

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

<DS Memo Coop Agency Process.pdf>

From: [Greg Siekaniec](#)
To: [Wendy Loya](#)
Cc: [Karen Clark](#); [Mary Colligan](#); [Mitch Ellis](#); [Socheata Lor](#)
Subject: Re: DS Memo on Cooperating Agency process
Date: Tuesday, June 12, 2018 10:54:59 AM

Thanks Wendy. I read this last night and agree that the changes address what you note. A new way of conducting business.

Greg

Sent from my iPhone

On Jun 12, 2018, at 8:49 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Greg and Karen,

Attached is new guidance from the Deputy Secretary on MOUs for DOI agencies working together, and it appears to make unnecessary the MOU we were in the process of surnaming for our work with BLM on the Coastal Plain Leasing EIS. I believe it is also likely applies to the Seismic EA for which we are attempting to finalize a project initiation letter.

Let me know if you believe otherwise.

Thanks,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

<DS Memo Coop Agency Process.pdf>

From: [Rose, Joshua](#)
To: [Wendy Loya](#); [John Trawicki](#); [Stephanie Brady](#); [Sarah Conn](#)
Cc: [Fox, Joanna](#)
Subject: EA chapter 3 is ready for review
Date: Tuesday, June 12, 2018 11:50:47 AM

We have completed the compilation and first review of the EA chapter 3 and it is ready for your review. During our last meeting we committed to have our draft back to BLM by this Friday, June 15th, so please complete your review as soon as possible to expedite this to the surnaming process. The document is on the google drive and is named "DRAFT Seismic EA - Chapter 3 Existing Condition" I have confirmed that each of you has edit access.

Also, Donna Wixon just returned to the office so I am waiting to hear if we are still having our weekly EA meeting at 3pm today. I will let you know as soon as I hear anything.

If you have any questions please feel free to contact me.

Thanks,
Josh

--

Joshua Rose
Aquatic Ecologist
USFWS Region 7 I&M
101 12th Ave., Rm 216
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Trawicki, John](#)
To: [Wendy Loya](#)
Subject: Fwd: Scoping Comments
Date: Tuesday, June 12, 2018 12:17:06 PM
Attachments: [Coastal plain w characteristics and values 6 11 2018 \(1\).docx](#)

sorry- thought I sent them last night.

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

From: **Joanna Fox** <joanna_fox@fws.gov>
Date: Mon, Jun 11, 2018 at 2:23 PM
Subject: Re: Scoping Comments
To: John Trawicki <john_trawicki@fws.gov>

Hi John,

Here are Roger's revised comments. Feel free to give me a call before 3pm today, or to call Roger if you have questions or need clarification. I'll be out of the office attending scoping meetings in Kaktovik tomorrow and Wednesday, and will return Thursday.

Thank you,
Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

Follow us on Facebook!
www.facebook.com/arcticnationalwildliferefuge

"Do what you can, with what you have, where you are." -- Theodore Roosevelt

On Mon, Jun 11, 2018 at 7:36 AM Trawicki, John <john_trawicki@fws.gov> wrote:

Joanna-

Could you work with Rodger to phrase wilderness and wildness into a scoping comment. Most of the background information will not be included. Other topics were a bit easier to sort through, Wilderness/wildness is a bit of a challenge.

Attached is what is submitted and I will also forward a few examples of scoping comments from other projects. Sorry for the rush, but will need this by noon today.

--

John Trawicki

Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: FWS edited Scoping Comments Coastal Plain EIS 061118.docx
Date: Tuesday, June 12, 2018 12:28:26 PM
Attachments: [FWS edited Scoping Comments Coastal Plain EIS 061118.docx](#)

Still need to finish cover letter and include Wilderness comments.

Thanks!
Wendy

From: [Machtans, Craig \(EC\)](#)
To: Wendy_loya@fws.gov
Subject: FW: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?
Date: Tuesday, June 12, 2018 12:53:17 PM

Hi Wendy –

A related question to what Shannon was asking below. Is there a place where the public can view individual submissions to the current ANWR scoping call? I realize you may not be the right person to ask, so I was hoping if you didn't know you could push me on to someone in BLM that might know?

Much appreciated,
Craig

Craig Machtans

Manager, Northern Region (Whitehorse), Canadian Wildlife Service
Environment and Climate Change Canada / Government of Canada
craig.machtans@canada.ca / Tel: 867-393-6706 / Fax: 867-393-7970

Gestionnaire, Région du Nord (Whitehorse), Service canadien de la faune
Environnement et Changement climatique Canada / Gouvernement du Canada
craig.machtans@canada.ca / Tél.: 867-393-6706 / Télécopieur 867-393-7970

From: Stotyn, Shannon (EC)
Sent: April 17, 2018 10:02 AM
To: Machtans, Craig (EC) <craig.machtans@canada.ca>
Subject: FW: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?

FYI – looks like the same page. I could follow up if you like.

S

From: Wendy Loya [mailto:Wendy_loya@fws.gov]
Sent: April 17, 2018 9:55 AM
To: Stotyn, Shannon (EC)
Subject: RE: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?

Hi Shannon,

I left you a voicemail, but let me try to point you to the Final EIS/IAP for NPRA on BLM's website, as that may be what you are looking for. I am happy to try to help you find what you need in there, or you can contact Nicole Hayes at BLM 907-271-4354, who is the Project Manager for the Arctic

Refuge Coastal Plain EIS and very familiar with BLM planning documents.

<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=14702>

I am not sure that anyone from FWS will be able to attend the Porcupine Caribou Herd Meeting in May, as our approval for international travel is ¾ of a year in advance. However, I do believe a request may be made for an exception so that the Arctic National Wildlife Refuge Supervisory Biologist, Steve Arthur, can attend. If it were possible to have a webinar link, it may be possible for more FWS/BLM/DOI staff to engage.

Don't hesitate to call me back if you would like to talk about your request. We do expect the Notice of Intent to begin scoping for the "Coastal Plain EIS" to be published on Friday of this week, so that is the start of scoping for the oil and gas program.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Stotyn, Shannon (EC) <shannon.stotyn@canada.ca>

Sent: Monday, April 16, 2018 3:44 PM

To: Wendy Loya <Wendy_loya@fws.gov>

Subject: RE: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?

Great, thanks Wendy!

Shannon

From: Wendy Loya [mailto:Wendy_loya@fws.gov]

Sent: April 16, 2018 4:43 PM

To: Stotyn, Shannon (EC)

Cc: Paul Leonard

Subject: RE: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?

Hi Shannon,

I am not sure I understand your request completely, so I will try to call you Tuesday morning to either answer your question or to provide contact information for someone at BLM or the Department of the Interior that can.

Thank you, look forward to talking with you,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Stotyn, Shannon (EC) <shannon.stotyn@canada.ca>
Sent: Monday, April 16, 2018 3:29 PM
To: Paul Leonard <paul_leonard@fws.gov>; Wendy Loya <wendy_loya@fws.gov>
Subject: [EXTERNAL] Question regarding existence of public registry for National Petroleum Reserve?

Hello,

I was just speaking with Mike Sutor (Yukon Government Dawson Regional Biologist) and he mentioned that the Arctic LCC was involved in preparing the EIS for the National Petroleum Reserve before their recent involvement in ANWR. I am not very familiar with how the BLM, Arctic LCC, USFWS and ADF&G work together on these projects but I am hoping you can help me with a quick question.

I was wondering if there was a public registry where all official submissions are available to view for large development projects in Alaska. In particular, I was looking for the official state submission for the *National Petroleum Reserve – Alaska IAP/EIS scoping report*.

I also hope you received our invitation to attend our 2 day workshop regarding the Porcupine Caribou herd in May 2018. I'm sure your any input you had would be much appreciated. If you have any questions please do not hesitate to call.

Thanks,

Shannon Stotyn

Shannon Stotyn

Species at Risk Biologist
Canadian Wildlife Service
Environment and Climate Change Canada
91780 Alaska Highway
Whitehorse, YT, Canada Y1A 5X7
shannon.stotyn@ec.gc.ca
Telephone 867-667-3929
Cellular: 867-333-9891
Facsimile 867-393-7970
Government of Canada
Website www.ec.gc.ca

Shannon Stotyn

Biologiste d'Espèces en Péril
Service Canadien de la faune
Environnement et Changement Climatique Canada
91780 autoroute Alaska
Whitehorse, YT, Canada Y1A 5X7

shannon.stotyn@ec.gc.ca

Téléphone 867-667-3929

Cellulaire: 867-333-9891

Télécopieur 867-393-7970

Gouvernement du Canada

Site Web www.ec.gc.ca

From: [Crane, Drew](#)
To: [Wendy Loya](#)
Subject: Re: FWS edited Scoping Comments Coastal Plain EIS 061118.docx
Date: Tuesday, June 12, 2018 1:49:56 PM
Attachments: [FWS edited Scoping Comments Coastal Plain EIS 061118_DC.docx](#)

Hey Wendy,

My comments and suggested edits are attached. Let me know if you need anything.

Thanks!

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

On Tue, Jun 12, 2018 at 10:28 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Still need to finish cover letter and include Wilderness comments.

Thanks!

Wendy

From: [Wendy Loya](#)
To: [Socheata Lor](#)
Cc: [Mitch Ellis](#)
Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Date: Tuesday, June 12, 2018 3:25:23 PM
Attachments: [Rapid-Response Resource Assessments and FWS Literature 0218.pdf](#)
[FWS Scoping Comments Coastal Plain EIS 061218.docx](#)
[Note to Reviewer_scoping.docx](#)
Importance: High

Hi Soch,

Attached is the Note to Reviewer, FWS Scoping Comments for the Coastal Plain EIS and a copy of Attachment 2: RR Resource Assessment and Literature Review for your review and signature. Since Toni is out, please help me keep this moving so we can meet the June 19th deadline.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Trawicki, John](#)
To: [Joshua Rose](#); [Wendy Loya](#); [Joanna Fox](#)
Subject: Fwd: Annotated Literature Updates & Cumulative Effects Matrix
Date: Wednesday, June 13, 2018 11:09:53 AM
Attachments: [Coastal Plain 1002 Area Oil & Gas Cumulative Lit Review 11Jun2018jwm.docx](#)
[MITIGATION MATRIX Coastal plain 1002 area DRAFT11Jun2018.docx](#)

fyi

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

From: **Martin, John** <john_w_martin@fws.gov>
Date: Mon, Jun 11, 2018 at 2:20 PM
Subject: Annotated Literature Updates & Cumulative Effects Matrix
To: Stephanie Brady <stephanie_brady@fws.gov>, John Trawicki <john_trawicki@fws.gov>, Margaret Perdue <margaret_perdue@fws.gov>, Greta Burkart <greta_burkart@fws.gov>, Paul Leonard <paul_leonard@fws.gov>

FYI

Latest updates per subject line - 11 Jun 2018. All are subject to change, further discussion and input, and may still be considered less-than-exhaustive.

Both have been added to RO Natural Resources Common Drive/1002ArcticRefuge/1-Working under Literature to support Resource Assessments.

Please distribute to whoever may benefit.

Thanks

John

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Cribley, Bud](#)
To: [Wendy Loya](#)
Cc: [Gregory Siekaniec](#); [Karen Clark](#)
Subject: Re: DRAFT Leasing EIS schedule from BLM
Date: Wednesday, June 13, 2018 2:42:51 PM

Wendy,

Did Nicole send you the draft Alt Workshop agenda? If so could you share it?

It would be fun to sit in on that meeting but I have a conflict that week.

Bud

On Thu, Jun 7, 2018 at 8:17 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Greg, Karen and Bud,

Attached is a DRAFT schedule from BLM for the Leasing EIS, subject to change. I will not share the complete schedule with anyone else as BLM asked it be kept close, but will extract the key dates and send those out as relevant to POCs and Staff Experts so we can have the right staff ready as needed. However, it is not clear from this timeline when FWS and other Cooperating Agencies will be given the opportunity to review the draft, but Nicole will provide further information.

Wendy

From: Hayes, Miriam (Nicole) [mailto:mnhayes@blm.gov]
Sent: Thursday, June 7, 2018 11:33 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: A couple of follow-up items

Hi Wendy,

1. You're correct in that the RFD will include ALL phases of potential O&G development from seismic to reclamation.
2. Attached is a draft schedule. We can discuss in our next meeting when the opportunities to comment and review draft documents will fit in. Please keep this schedule close hold as it has not been reviewed by BLM leadership and clearly is subject to change.
3. Hope to have a draft Alt Workshop agenda to you tomorrow.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

--

Bud C Cribley

Senior Advisor for Energy with the U.S. Fish & Wildlife Service

Office # 202-208-4331

Cell # 907-717-5141

Office # MIB 3341

email: bud_cribley@fws.gov

From: [Wendy Loya](#)
To: [Socheata Lor](#); [Mary Colligan](#); [Eric Taylor](#); [Sara Boario](#)
Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Date: Wednesday, June 13, 2018 4:32:37 PM
Attachments: [Rapid-Response Resource Assessments and FWS Literature 0218.pdf](#)
[FWS Scoping Comments Coastal Plain EIS 061218.docx](#)
[Note to Reviewer_scoping.docx](#)
Importance: High

Hi ARDs on Arctic Refuge Coastal Plain team,

Given the short timeline for turnaround, I would like to ask for concurrent review of the attached FWS Scoping comments for the Coastal Plain Leasing EIS. If you have edits, please return them to me and I will collate those. The comments are due from Greg to BLM next Wednesday June 19th, so if I can get your comments by COB Friday, that would be great. Looking for significant missing issues.

I am working from Fairbanks this week and next, call me on my cell at 227-2942 if you have questions.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]
Sent: Tuesday, June 12, 2018 1:25 PM
To: Socheata Lor <socheata_lor@fws.gov>
Cc: Mitch Ellis <mitch_ellis@fws.gov>
Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Importance: High

Hi Soch,

Attached is the Note to Reviewer, FWS Scoping Comments for the Coastal Plain EIS and a copy of Attachment 2: RR Resource Assessment and Literature Review for your review and signature. Since Toni is out, please help me keep this moving so we can meet the June 19th deadline.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Bud Cribley](#)
To: [Wendy Loya](#)
Subject: Re: DRAFT BLM Alternatives Workshop agenda
Date: Thursday, June 14, 2018 6:36:34 AM

Thanks Wendy. I'm not sure I can make next week but thanks for the invite. I will listen in tomorrow.

Bud

On Wed, Jun 13, 2018 at 4:49 PM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Bud,

Here is the DRAFT workshop agenda, waiting for final before sharing with relevant staff. If you want to come to Fairbanks next Tuesday and Wednesday we would love to have you here for our internal workshop!

We are meeting Friday per your calendar invite.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Cribley, Bud [mailto:bud_cribley@fws.gov]

Sent: Wednesday, June 13, 2018 12:43 PM

To: Wendy Loya <wendy_loya@fws.gov>

Cc: Gregory Siekaniec <greg_siekaniec@fws.gov>; Karen Clark <karen_clark@fws.gov>

Subject: Re: DRAFT Leasing EIS schedule from BLM

Wendy,

Did Nicole send you the draft Alt Workshop agenda? If so could you share it?

0000008293

It would be fun to sit in on that meeting but I have a conflict that week.

Bud

On Thu, Jun 7, 2018 at 8:17 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Greg, Karen and Bud,

Attached is a DRAFT schedule from BLM for the Leasing EIS, subject to change. I will not share the complete schedule with anyone else as BLM asked it be kept close, but will extract the key dates and send those out as relevant to POCs and Staff Experts so we can have the right staff ready as needed. However, it is not clear from this timeline when FWS and other Cooperating Agencies will be given the opportunity to review the draft, but Nicole will provide further information.

Wendy

From: Hayes, Miriam (Nicole) [mailto:mnhayes@blm.gov]
Sent: Thursday, June 7, 2018 11:33 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: A couple of follow-up items

Hi Wendy,

1. You're correct in that the RFD will include ALL phases of potential O&G development from seismic to reclamation.
2. Attached is a draft schedule. We can discuss in our next meeting when the opportunities to comment and review draft documents will fit in. Please keep this schedule close hold as it has not been reviewed by BLM leadership and clearly is subject to change.
3. Hope to have a draft Alt Workshop agenda to you tomorrow.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

--

Bud C Cribley

Senior Advisor for Energy with the U.S. Fish & Wildlife Service

Office # 202-208-4331

Cell # 907-717-5141

Office # MIB 3341

email: bud_cribley@fws.gov

--

Bud C Cribley

Senior Advisor for Energy with the U.S. Fish & Wildlife Service

Office # 202-208-4331

Cell # 907-717-5141

Office # MIB 3341
email: bud_cribley@fws.gov

From: [Mary Colligan](#)
To: [Lucille Frerich](#); wendy_loya@fws.gov
Subject: Fwd: Greg will be there Tuesday morning
Date: Thursday, June 14, 2018 8:52:24 AM

Lucy -could you please set up a 1/2 hour briefing for Wendy, Greg and I on Monday for 1002?

Wendy-I am at the Oil and Gas Forum all day today, but can talk tomorrow about talking points for Greg.

Thanks

Sent from my iPhone

Begin forwarded message:

From: Karen Clark <karen_clark@fws.gov>
Date: June 14, 2018 at 3:56:35 AM AKDT
To: mary_colligan@fws.gov
Subject: Greg will be there Tuesday morning

Hey Mary,
Greg will be there Tuesday. He would like to have a pre-brief and some talking points. Can you work with Wendy to set something up? Will have to be on Monday given he won't be in the office until then.
Thanks! Karen

Sent from my iPhone

From: [Jones, Nichelle \(Shelly\)](#)
To: [Trawicki, John](#)
Cc: [Wendy Loya](#)
Subject: Re: Communication with Whitman
Date: Thursday, June 14, 2018 11:23:28 AM

Fine to discuss this topic without including me further.

Shelly Jones
Acting Manager
Arctic District Office
222 University Avenue
Fairbanks, AK 99709

(907) 474-2310 (w)
(907) 460-0086 (c)

On Thu, Jun 14, 2018 at 8:38 AM, Trawicki, John <john_trawicki@fws.gov> wrote:

Shelly-

I would like to have a discussion with Mathew, Jeff Conway (USGS-Hydrologist) on potential and current USGS Research and monitoring activities on the Arctic Refuge.

We are looking to expand some of the work USGS did on NPRA related to water resources to the Refuge and/or identify additional research and monitoring that would be appropriate to initiate on the Arctic Refuge, to benefit decision making as O&G activities move forward.

Please let me know the best way to move forward with this discussion.

john t

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
[1011 E. Tudor Road](#)
[Anchorage, AK 99503](#)
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Greta Burkart](#)
To: [Josh Rose](#); [Fox, Joanna](#); [Arthur, Stephen](#); [John Trawicki](#); [Wendy Loya](#); paul_leonard@fws.gov
Subject: [EXTERNAL] potential stipulations for water resources
Date: Friday, June 15, 2018 7:03:48 AM
Attachments: [PotentialStipsAndBMPsArcticRefuge.xlsx](#)

Hi Everyone,

I have attached draft stipulations for water resources in the 1002 area. This list includes recommended buffers for certain rivers and springs. I have also included comparable stipulations in place in the NPR-A. Note - I am missing a BMP for fueling distances.

If you need anything, let me know. I have not been very busy here and I know you guys are extremely busy!

Greta

From: [Miriam \(Nicole\) Hayes](#)
To: [Wendy Loya](#)
Subject: Re: DS Memo on Cooperating Agency process
Date: Friday, June 15, 2018 9:13:56 AM

I think this will suffice. I guess that makes it easier...

Sent from my iPad

On Jun 12, 2018, at 10:19 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Nicole,

Not sure if this came across your email yet, but it new guidance from DS Bernhardt on the terms for DOI agencies working together as Cooperating Agencies. It seems this will suffice as our MOU, despite our efforts on the other document. If you have been told differently, we can figure out the right path forward.

Cheers,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

<DS Memo Coop Agency Process.pdf>

From: [Wendy Loya](#)
To: [Greta Burkart](#)
Subject: RE: [EXTERNAL] potential stipulations for water resources
Date: Friday, June 15, 2018 9:58:28 AM

Thank you! Will be looking through these this weekend, and let you know if I have any questions.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Greta Burkart [mailto:[b6](#)]
Sent: Friday, June 15, 2018 5:02 AM
To: Josh Rose <joshua_rose@fws.gov>; Fox, Joanna <joanna_fox@fws.gov>; Arthur, Stephen <stephen_arthur@fws.gov>; John Trawicki <John_Trawicki@fws.gov>; Wendy Loya <wendy_loya@fws.gov>; paul_leonard@fws.gov
Subject: [EXTERNAL] potential stipulations for water resources

Hi Everyone,

I have attached draft stipulations for water resources in the 1002 area. This list includes recommended buffers for certain rivers and springs. I have also included comparable stipulations in place in the NPR-A. Note - I am missing a BMP for fueling distances.

If you need anything, let me know. I have not been very busy here and I know you guys are extremely busy!

Greta

From: [Wendy Loya](#)
To: [Bud Cribley](#)
Subject: FW: Oil and Gas Forum
Date: Friday, June 15, 2018 11:23:34 AM

From: Colligan, Mary [mailto:mary_colligan@fws.gov]
Sent: Friday, June 15, 2018 8:34 AM
To: Gregory Siekaniec <greg_siekaniec@fws.gov>; Karen Clark <karen_clark@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Wendy Loya <wendy_loya@fws.gov>
Subject: Oil and Gas Forum

Yesterday, I attended the Oil and Gas Forum sponsored by the North Slope Borough. I just wanted to quickly share a few highlights.

Governor Walker opened the Forum and emphasized the need to properly develop the natural resources and that it was important that the decisions be made by local people. He talked about the fact that AK is the most energy rich state, but has the highest energy cost. He said he wanted to fix that imbalance. He thanked Assistant Secretary Balash for his support and leadership and said how much he admires Secretary Zinke and talked about the day the Izembeck Road deal was signed as a very proud day.

Assistant Secretary Balash talked about how proud he was as an Alaskan to be holding a Cabinet level position and said he takes the responsibility seriously and emphasized the importance of coordination, communication and appreciation. He emphasized the importance of considering the benefit of infrastructure for local villages and people. He said he recently met with Mayor Brower and they agreed to get their teams together to revisit the IAP for the NPRA. He said on his first day on the job the Secretary told him the ANWR leasing program was his job - he said that was both humbling and exciting. He emphasized the importance of stipulations/BMPs to protect subsistence and noted that this whole program would be heavily scrutinized.

The NSB repeatedly emphasized their desire for a MOU with DOI. They have a couple MOUs with the State and say it has really helped communication and coordination.

The NSB presented on revisions they are trying to make to their zoning code - seems like something the Refuge folks might be interested in.

There were many presentations and discussions about infrastructure planning and coordination including the North Slope Community Winter Access Trails (CWAT), Arctic Strategic Transportation and Resources (ASTAR) and other planning efforts. Frustration was expressed over the fact that oil and gas companies each have their own roads and infrastructure which increases the footprint of impact. The NSB also presented on their program to provide water, wastewater and solid waste service to the industry (Area 10 program) and the need to plan now to accommodate needs given the increased development in the NPRA and with the 1002 potential. The point was made that consideration should be given to the proximity of lease sites to state or NSB lands in order to accommodate the support services that would be necessary and can't be provided on federal lands.

Another theme of the meeting was concern over Decommissioning, Removal and Restoration (DR&R). Concerns were expressed over smaller companies taking over facilities and whether they would have the resources to properly conduct DR&R when the time came. Also some expressed a desire to repurpose the infrastructure for the benefit of villages rather than removal.

At the conclusion, they expressed a desire to hold a forum every couple of years and for future ones to be jointly sponsored by the NSB, State and Federal Agencies.

It seemed appreciated that USFWS was present. Particularly towards the end of the day they asked who was still there and there were only 2 federal agency folks left - whereas there was a large contingent in the morning sessions. Frustration was expressed that the agencies were there to present but not to listen.

Please let me know if you have any questions or want to see any of the information distributed.

Thanks,
Mary

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Cc: [Socheata Lor](#); [Eric Taylor](#); [Sara Boario](#); [Mitch Ellis](#); [Drew Crane](#)
Subject: Re: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Date: Friday, June 15, 2018 1:03:11 PM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061218 MAC\(1\).docx](#)

I quickly got these put in so that others could see my edits, as was requested at this morning's meeting.

Please let me know if you have questions or issues with any of my suggestions.

Thanks

On Wed, Jun 13, 2018 at 2:32 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi ARDs on Arctic Refuge Coastal Plain team,

Given the short timeline for turnaround, I would like to ask for concurrent review of the attached FWS Scoping comments for the Coastal Plain Leasing EIS. If you have edits, please return them to me and I will collate those. The comments are due from Greg to BLM next Wednesday June 19th, so if I can get your comments by COB Friday, that would be great. Looking for significant missing issues.

I am working from Fairbanks this week and next, call me on my cell at 227-2942 if you have questions.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]
Sent: Tuesday, June 12, 2018 1:25 PM
To: Socheata Lor <socheata_lor@fws.gov>
Cc: Mitch Ellis <mitch_ellis@fws.gov>
Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Importance: High

Hi Soch,

Attached is the Note to Reviewer, FWS Scoping Comments for the Coastal Plain EIS and a copy of Attachment 2: RR Resource Assessment and Literature Review for your review and signature. Since Toni is out, please help me keep this moving so we can meet the June 19th deadline.

Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

0000008305

From: [Lor, Socheata](#)
To: [Taylor, Eric](#)
Cc: [Colligan, Mary](#); [Wendy Loya](#); [Sara Boario](#); [Mitch Ellis](#); [Drew Crane](#); [John Trawicki](#)
Subject: Re: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Date: Friday, June 15, 2018 3:36:40 PM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061218_SLorEdits.docx](#)

Wendy,

Attached are my edits. Sorry I couldn't jump on Mary's edits; I was already halfway through the doc when I received it.

I printed and signed the NTR. Because Toni is not here, I gave it to John T. to pull the packet together and collect signatures once the edits are cleaned up. He will be here on Monday and will ensure that the packet get routed through everyone.

Sara B. was in my office this morning and mentioned that she will be on travel next week and may or may not get to review and that we may not need to sign the surname slip. Sara, please let Wendy know.

John, thank you for taking care of the packet.

Soch

~~~~~  
*Socheata Lor, Ph.D.*  
*Deputy Assistant Regional Director - Region 7*  
*National Wildlife Refuge System*  
*U.S. Fish and Wildlife Service*  
*1011 E. Tudor Road*  
*Anchorage, AK 99503*  
*Office: 907.786.3420*  
*Cell: 907.891.6194*  
~~~~~

On Fri, Jun 15, 2018 at 11:08 AM, Taylor, Eric <eric_taylor@fws.gov> wrote:

Hi Mary -

Terrific. Thanks. I'll work off your document now and have my comments today.

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
[1011 E. Tudor Road](#), MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Fri, Jun 15, 2018 at 11:03 AM, Colligan, Mary <mary_colligan@fws.gov> wrote:
I quickly got these put in so that others could see my edits, as was requested at this morning's meeting.

Please let me know if you have questions or issues with any of my suggestions.

Thanks

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I am working from Fairbanks this week and next, call me on my cell at 227-2942 if you have questions.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]

Sent: Tuesday, June 12, 2018 1:25 PM

To: Socheata Lor <socheata_lor@fws.gov>

Cc: Mitch Ellis <mitch_ellis@fws.gov>

Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS

Importance: High

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Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
[1011 E. Tudor Road](#), MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Taylor, Eric](#)
To: [Wendy Loya](#)
Cc: [Socheata Lor](#); [Mary Colligan](#); [Sara Boario](#); [Crane, Drew](#); [John Trawicki](#); [Mitch Ellis](#)
Subject: Re: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS
Date: Friday, June 15, 2018 4:09:44 PM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061218 MAC_ejt.docx](#)

Hi Wendy -

Attached are my edits overlaid on Mary's review. Please let me know if you have any questions.

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Wed, Jun 13, 2018 at 2:32 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi ARDs on Arctic Refuge Coastal Plain team,

Given the short timeline for turnaround, I would like to ask for concurrent review of the attached FWS Scoping comments for the Coastal Plain Leasing EIS. If you have edits, please return them to me and I will collate those. The comments are due from Greg to BLM next Wednesday June 19th, so if I can get your comments by COB Friday, that would be great. Looking for significant missing issues.

I am working from Fairbanks this week and next, call me on my cell at 227-2942 if you have questions.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]

Sent: Tuesday, June 12, 2018 1:25 PM

To: Socheata Lor <socheata_lor@fws.gov>

Cc: Mitch Ellis <mitch_ellis@fws.gov>

Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS

Importance: High

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Attached is the Note to Reviewer, FWS Scoping Comments for the Coastal Plain EIS and a copy of Attachment 2: RR Resource Assessment and Literature Review for your review and signature. Since Toni is out, please help me keep this moving so we can meet the June 19th deadline.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Sara Boario](#); [Eric Taylor](#)
Cc: [Socheata Lor](#); [Mary Colligan](#); [Drew Crane](#); [John Trawicki](#); [Mitch Ellis](#)
Subject: 2 questions on Scoping Comments edits!
Date: Friday, June 15, 2018 4:56:52 PM
Attachments: [image001.png](#)
[FWS Scoping Comments Coastal Plain EIS 061218 MAC_ejt.docx](#)
Importance: High

Hi ARDs,

To follow up, there are enough comments here that I will not try to get it done today.

2 Comments I need input on are:

- 1) **ALL:** The Rapid-Response Resource Assessments were completed in February 2016 and have been previously shared with BLM, via email. We did not send them through surnaming. They are useful, but they should not be considered complete or entirely accurate (given our lack of experience with oil and gas when written in Jan-Feb 2018). I would suggest we do not want them to be published with in the Public Scoping Report, nor to be a go-to public document. For that reason, I suggest we remove reference from this letter. Thoughts:
- 2) **SOCH and MARY:** The comment from Mary under Air Quality referring to the interagency MOU on air quality and possible discussion by Steve Wackowski. Is this something that has been rescinded and would alter the content of our comment here?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Boario, Sara [mailto:sara_boario@fws.gov]
Sent: Friday, June 15, 2018 2:18 PM
To: Taylor, Eric <eric_taylor@fws.gov>
Cc: Wendy Loya <wendy_loya@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Mary Colligan <mary_colligan@fws.gov>; Crane, Drew <drew_crane@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>
Subject: Re: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS

Wendy -

Eric caught a few of the typos I was going to flag, and I'm fine with deferring on substance to Mary, Soch and Eric. I read it all, looks good.

thank you!

sb

On Fri, Jun 15, 2018 at 2:09 PM, Taylor, Eric <eric_taylor@fws.gov> wrote:

Hi Wendy -

Attached are my edits overlaid on Mary's review. Please let me know if you have any questions.

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Wed, Jun 13, 2018 at 2:32 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi ARDs on Arctic Refuge Coastal Plain team,

Given the short timeline for turnaround, I would like to ask for concurrent review of the attached FWS Scoping comments for the Coastal Plain Leasing EIS. If you have edits, please return them to me and I will collate those. The comments are due from Greg to BLM next Wednesday June 19th, so if I can get your comments by COB Friday, that would be great. Looking for significant missing issues.

I am working from Fairbanks this week and next, call me on my cell at 227-2942 if you have questions.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]

Sent: Tuesday, June 12, 2018 1:25 PM

To: Socheata Lor <socheata_lor@fws.gov>

Cc: Mitch Ellis <mitch_ellis@fws.gov>

Subject: Note to Reviewer: Scoping Comments for Coastal Plain Leasing EIS

Importance: High

0000008312

Hi Soch,

Attached is the Note to Reviewer, FWS Scoping Comments for the Coastal Plain EIS and a copy of Attachment 2: RR Resource Assessment and Literature Review for your review and signature. Since Toni is out, please help me keep this moving so we can meet the June 19th deadline.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

Sara D. Boario
Assistant Regional Director-External Affairs
U.S. Fish and Wildlife Service, Alaska Region
Anchorage, Alaska
907-786-3431



From: [Wendy Loya](#)
To: [Mary Colligan](#)
Cc: [Mitch Ellis](#); [Socheata Lor](#); [Sara Boario](#); [Eric Taylor](#)
Subject: Hopefully "final" Leasing EIS scoping comments
Date: Saturday, June 16, 2018 2:30:00 PM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061618.docx](#)
Importance: High

Hi ARDs,

Thank you all for your constructive edits that improve our scoping comments on the Arctic Refuge Coastal Plain Leasing EIS. Attached are the revised comments, which I should send to Greg and Karen Monday morning. I have accepted all the edits proposed and made clarifications in response to each comment.

A few notes:

MC: Comment regarding memo vs. letter for com with DOI: Two examples of FWS comments to BLM (Liberty Draft EIS) and DOI (ASAP Pipeline Draft EIS) were letters, although for DEIS not scoping. The example I have for a scoping was FWS letter to Army Corps on Donlin (not DOI). Recommend staying with letter format unless directed otherwise. Checked recent memo on Cooperating Agency guidelines from Dep. Sec and nothing specified.

References: Citations were not provided by all staff providing comments; would take significant time to track down all possible citations. I have excluded citations but referred to titles of documents in three instances that seemed appropriate.

The EIS will include a description of a Reasonably Foreseeable Development Scenario, this will include all activities from seismic to reclamation, per Nicole Hayes at BLM. This RFDS is necessary to quantify the impacts of activities associated with a leasing program. There will be a No Action alternative to describe baseline conditions, then any other alternative(s) will be evaluated based on an assumed level of activity associated with contemporary exploration and development operations.

MC: comment in Subsistence: Are we recommending that socioeconomic analyses be conducted? I am interpreting this comment to indicate this request is beyond our area of expertise, and am deleting the recommendation that socioeconomic analyses for "subsistence" be included.

Cumulative Effects: I have tried to clarify where there is confusion that the cumulative effects analyses needs to consider not just impacts of all stages of development on the coastal plain, but also impacts across the north slope, and beyond for migratory species.

A few other comments included in revised document to aid in your review.

Thank you for your further consideration.
Wendy

Dr. Wendy M. Loya,

0000008314

Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Subject: Re: Hopefully "final" Leasing EIS scoping comments
Date: Saturday, June 16, 2018 6:16:32 PM

Well, that is just sad

On Sat, Jun 16, 2018 at 4:15 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Thank you!

I am neck deep in NPRA stips and BMPs, so that was the fun part of my day ☺

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Colligan, Mary [mailto:mary_colligan@fws.gov]

Sent: Saturday, June 16, 2018 4:14 PM

To: Wendy Loya <wendy_loya@fws.gov>

Cc: Mitch Ellis <mitch_ellis@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Sara Boario <sara_boario@fws.gov>; Eric Taylor <eric_taylor@fws.gov>

Subject: Re: Hopefully "final" Leasing EIS scoping comments

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Thank you for your further consideration.

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

[1011 E. Tudor Road](#), MS-361

Anchorage, AK 99503

907-786-3505

cell: 907-223-5945

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Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Karen Murphy](#)
Subject: FW: Agenda for FWS Workshop on Alternatives for Coastal Plain Leasing EIS/Seismic EA 6/19-20
Date: Monday, June 18, 2018 10:01:00 AM
Attachments: [Print Version Table 2.3 Stips BMPs for FWS Workshop 061718a .xlsx](#)
[AGENDA FWS Internal Alternatives Wkshp Coastal Plain Leasing EIS 061519.pdf](#)

Sure, feel free to join and watch our LCD in action 😊

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]
Sent: Sunday, June 17, 2018 5:19 PM
To: Paul Leonard <paul_leonard@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Randy Brown <randy_j_brown@fws.gov>; Doug Damberg <doug_damberg@fws.gov>; Jennifer Reed <jennifer_reed@fws.gov>; Joanna Fox <joanna_fox@fws.gov>; Hollis Twitchell <hollis_twitchell@fws.gov>; Drew Crane <drew_crane@fws.gov>; Lynnda Kahn <lynnda_kahn@fws.gov>; Angela Matz <angela_matz@fws.gov>; Christopher Latty <christopher_latty@fws.gov>; Patrick O'Dell <patrick_odell@fws.gov>; Carl Johnson <carl_johnson@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Stephen Arthur <stephen_arthur@fws.gov>; Steve Berendzen <steve_berendzen@fws.gov>; Joshua Ream <joshua_ream@fws.gov>; Eric Taylor <eric_taylor@fws.gov>; Catherine Collins <catherine_collins@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Roger Kaye <roger_kaye@fws.gov>; Edward Decleva <edward_decleva@fws.gov>; Tim Allen <tim_allen@fws.gov>; Ryan Wilson <ryan_r_wilson@fws.gov>; Joshua Rose <joshua_rose@fws.gov>; Christopher Putnam <christopher_putnam@fws.gov>; Kevin Doherty <kevin_doherty@fws.gov>; Todd Hopkins <todd_hopkins@fws.gov>; Tracy Fischbach <tracy_fischbach@fws.gov>; Karen Clark <karen_clark@fws.gov>; Greg Siekaniec <greg_siekaniec@fws.gov>; Bud Cribley (bud_cribley@fws.gov) <bud_cribley@fws.gov>; 'Agnew Beck' <meghan@agnewbeck.com>; Sara Boario <sara_boario@fws.gov>; Mary Colligan <mary_colligan@fws.gov>
Subject: Agenda for FWS Workshop on Alternatives for Coastal Plain Leasing EIS/Seismic EA 6/19-20

Dear FWS "1002" team,

Attached is the agenda for the FWS Internal Alternatives Workshop for the Arctic Refuge Coastal Plain Leasing EIS. I am excited to have so many of our staff experts join us in Fairbanks; we will meet in the Refuges Conference room on the 2nd floor of the Fairbanks Field Office/Federal Building downtown. Greg Siekaniec will be opening the workshop at 8:30am on Tuesday, and we hope to be done by 4:30pm both days. We are happy to have Meghan Holtan from Agnew Beck as our facilitator.

0000008320

The workshop will focus on the spatial component of developing alternatives for the Arctic Refuge Coastal Plain, including availability of lands for leasing and stipulations/best management practices (BMPs) that would protect sensitive resources. There are many BMPs that are used to protect resources that we won't have time to discuss as a group, but which we will solicit feedback on between June 21-July 6th, prior to the BLM Alternatives workshop. You can see all of the NPRA Stipulations and BMPs in the attached excel workbook which organizes the NPRA Final IAP/EIS Table 2.3 by the topics. I will have copies on hand at the workshop.

FYI, we will join the BLM/EMPSi-hosted "Coastal Plain Leasing EIS Affected Environment Kick-off" on Weds at 10am.

A few logistical notes:

Please take the elevator when you come in the North side main entrance and go to 2nd floor. You will get locked in stairwells unless your PIV card is active for the Fairbanks Field Office building.

A few who can't attend can connect via Vidyo and phone, see the agenda for connection info.

I have made a reservation for the group to go to dinner at Chena Pump House Tuesday evening at 6pm. We will have plenty of vehicles to shuttle those that don't have transportation.

If you have indicated you are not able to attend... don't fret, we'll continue to gather information and feedback until the BLM-hosted workshop on July 9th.

Thank you, and see you soon! Don't hesitate to contact me with any questions,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [John Trawicki](#); [Eric Taylor](#)
Subject: Leasing EIS scoping comments for RDs
Date: Monday, June 18, 2018 10:43:00 AM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061618.docx](#)

Eric, John T will bring sheet by for signing, this is the final draft if you want one last look...

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Taylor, Eric](#)
To: [Wendy Loya](#)
Cc: [Colligan, Mary](#); [Mitch Ellis](#); [Sara Boario](#); [Socheata Lor](#); [John Trawicki](#)
Subject: Re: Hopefully "final" Leasing EIS scoping comments
Date: Monday, June 18, 2018 11:29:04 AM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061618_ejt.docx](#)

Hi Wendy -

A few suggested changes, corrections, edits, and one or two comments/questions. Use/modify/ignore as you deem appropriate.

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

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Wendy,

For Wilderness, I don't know enough to comment. If you need clarification, talk with Roger Kaye?

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Mitch and I are enroute to Chiefs meeting in New Jersey. Call my cell if you need anything.

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From: [Trawicki, John](#)
To: [Romero, Maria](#); [Wendy Loya](#); [Mary Colligan](#)
Subject: Fwd: Final Leasing EIS scoping comments for surnaming at RD level
Date: Monday, June 18, 2018 12:57:36 PM
Attachments: [NPRA BMP E-20 background for scoping 061818.docx](#)
[FWS Scoping Comments Coastal Plain EIS 061818docx.docx](#)

Toni-

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Mary will let you know how we will transmit the comments to BLM. Most likely an electronic version followed by hard copy.

thank you

john t

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

From: **Wendy Loya** <wendy_loya@fws.gov>
Date: Mon, Jun 18, 2018 at 9:53 AM
Subject: Final Leasing EIS scoping comments for surnaming at RD level
To: Eric Taylor <eric_taylor@fws.gov>
Cc: Mary Colligan <mary_colligan@fws.gov>, Mitch Ellis <mitch_ellis@fws.gov>, Sara Boario <sara_boario@fws.gov>, Socheata Lor <socheata_lor@fws.gov>, John Trawicki <john_trawicki@fws.gov>

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Dr. Wendy M. Loya,
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907.277.2942 (mobile)

From: Taylor, Eric [mailto:eric_taylor@fws.gov]
Sent: Monday, June 18, 2018 9:29 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Colligan, Mary <mary_colligan@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Sara Boario <sara_boario@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; John Trawicki <john_trawicki@fws.gov>
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Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

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cell: 907-223-5945

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John Trawicki

Water Resources Branch Chief

National Wildlife Refuge System, Alaska

U.S. Fish and Wildlife Service

1011 E. Tudor Road

Anchorage, AK 99503

Work: (907) 786-3474

Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"

George Bernard Shaw

From: [Brown, Randy](#)
To: [Wendy Loya](#)
Subject: New data series report...
Date: Monday, June 18, 2018 1:16:11 PM
Attachments: [DataSeries_CanningRiverDollyVarden_Draft_June2018.pdf](#)

Hi Wendy,

I wanted to give you a heads up on some new fisheries research we will be publishing soon in our Alaska Fisheries Data Series. It is on a several year radio telemetry investigation on several aspects of Dolly Varden biology in the Canning River. You are welcome to share with the group if you think it would be valuable information for the upcoming meeting.

Randy

--

Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

From: [Brown, Randy](#)
To: [Paul Leonard](#)
Cc: [Wendy Loya](#)
Subject: North Slope springs, spawning overwintering sites...
Date: Monday, June 18, 2018 2:13:47 PM
Attachments: [DataSeries_CanningRiverDollyVarden_Draft_June2018.pdf](#)
[Kane_et al_2013_NorthSlopeSprings.pdf](#)
[CanningSpringsWinteringSpawningSites.xlsx](#)

Hi Paul,

Wendy asked me to share some data with you on springs and Dolly Varden spawning and overwintering sites on the North Slope. These relate to a new manuscript I recently submitted as an Alaska Fisheries Data Series report (attached). Some of the spring data comes from Kane et al. (2013), which is also attached. A number of the locations given by Kane et al. for the springs they discuss are off by as much as 2 km in some cases. They are corrected in the tabs I put together. The spawning and overwintering locations for the fish I studied are central points in clusters of fish. Give a shout if you have any questions.

Randy

--

Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

From: [Wendy Loya](#)
To: ["Agnew Beck"](#)
Subject: Slides and misc
Date: Monday, June 18, 2018 3:25:00 PM
Attachments: [FWS Internal workshop Resource sections .pptx](#)
[Loya FWS Internal Alt workshop for 1002 leasing EIS 061818.pptx](#)

Hi Meghan,

I am still working on the workshop content slides, but sending you the introductory slides for after Greg talks that will provide an overview of how NPRA is managed so participants understand the tools at our disposal. We'll tackle water resources first, as it will overlap with all the themes and hopefully help staff understand the interconnectedness of stipulations and BMPs. What I am not sending are the GIS maps that will go in each section.

There are two options for your mom-based needs...a very nearby secluded room or a room down the hall set up for mom's and includes a comfy chair and refrigerator.

Feel free to call today if you have questions. Let me know what time you plan to come to the FWS tomorrow and I can help you find your way to the meeting room.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Colligan, Mary](#)
To: [Trawicki, John](#)
Cc: [Wendy Loya](#); [Maria Romero](#)
Subject: Re: Revision request: Final Leasing EIS scoping comments for surnaming at RD level
Date: Monday, June 18, 2018 4:51:12 PM
Attachments: [FWS Scoping Comments Coastal Plain EIS 061818 3.docx](#)

Here it is with Greg's comments. I put them in track changes so they are visible. He also would like page numbers added to the attachment. I will bring the folder down now

On Mon, Jun 18, 2018 at 12:26 PM, Trawicki, John <john_trawicki@fws.gov> wrote:

Toni-

attached is the reordered comments

johnt

On Mon, Jun 18, 2018 at 11:34 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Toni,

Greg has recommended re-ordering the sections in the Scoping Comments. Here is a suggested order revision, although it might be worth waiting to see if he has further recommendations:

1. Subsistence
2. Caribou
3. Polar bears
4. Migratory birds
5. Water quality/fish
6. All wildlife
7. Terrestrial
8. Wilderness
9. Visitor use
10. Air quality
11. Acoustic
12. Hazardous waste
13. Climate

14. Cultural
15. International
16. Invasive species
17. Wildfire
18. Connected/cumulative actions

Thank you,

wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

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From: Trawicki, John [mailto:john_trawicki@fws.gov]

Sent: Monday, June 18, 2018 10:57 AM

To: Romero, Maria <maria_romero@fws.gov>; Wendy Loya <wendy_loya@fws.gov>; Mary Colligan <mary_colligan@fws.gov>

Subject: Fwd: Final Leasing EIS scoping comments for surnaming at RD level

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Date: Mon, Jun 18, 2018 at 9:53 AM

Subject: Final Leasing EIS scoping comments for surnaming at RD level

To: Eric Taylor <eric_taylor@fws.gov>

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From: Taylor, Eric [mailto:eric_taylor@fws.gov]

Sent: Monday, June 18, 2018 9:29 AM

To: Wendy Loya <wendy_loya@fws.gov>

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On Sat, Jun 16, 2018 at 12:30 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi ARDs,

Thank you all for your constructive edits that improve our scoping comments on the Arctic Refuge Coastal Plain Leasing EIS. Attached are the revised comments, which I should send to Greg and Karen Monday morning. I have accepted all the edits proposed and made clarifications in response to each comment.

A few notes:

MC: Comment regarding memo vs. letter for com with DOI: Two examples of FWS comments to BLM (Liberty Draft EIS) and DOI (ASAP Pipeline Draft EIS) were letters, although for DEIS not scoping. The example I have for a scoping was FWS letter to Army Corps on Donlin (not DOI). Recommend staying with letter format unless directed otherwise. Checked recent memo on Cooperating Agency guidelines from Dep. Sec and nothing specified.

References: Citations were not provided by all staff providing comments; would take significant time to track down all possible citations. I have excluded citations but referred to titles of documents in three instances that seemed appropriate.

The EIS will include a description of a Reasonably Foreseeable Development Scenario, this will include all activities from seismic to reclamation, per Nicole Hayes at BLM. This RFDS is necessary to quantify the impacts of activities associated with a leasing program.

There will be a No Action alternative to describe baseline conditions, then any other alternative(s) will be evaluated based on an assumed level of activity associated with contemporary exploration and development operations.

MC: comment in Subsistence: Are we recommending that socioeconomic analyses be conducted? I am interpreting this comment to indicate this request is beyond our area of expertise, and am deleting the recommendation that socioeconomic analyses for “subsistence” be included.

Cumulative Effects: I have tried to clarify where there is confusion that the cumulative effects analyses needs to consider not just impacts of all stages of development on the coastal plain, but also impacts across the north slope, and beyond for migratory species.

A few other comments included in revised document to aid in your review.

Thank you for your further consideration.

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

[1011 E. Tudor Road](#), MS-361

[Anchorage, AK 99503](#)

907-786-3505

cell: 907-223-5945

--

John Trawicki

Water Resources Branch Chief

National Wildlife Refuge System, Alaska

U.S. Fish and Wildlife Service

[1011 E. Tudor Road](#)

[Anchorage, AK 99503](#)

Work: (907) 786-3474

Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"

George Bernard Shaw

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

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Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Sarah LaMarr](#)
To: [Wixon, Donna](#); [Wendy Loya](#)
Cc: [Rose, Joshua](#); [Nichelle Jones](#)
Subject: Re: Tuesday EA coordination meeting
Date: Monday, June 18, 2018 5:12:27 PM

Since so many folks are out of the office this week, let's cancel the weekly seismic meeting.
Thanks!

Sarah La Marr
Bureau of Land Management
Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

On Wed, Jun 13, 2018 at 11:16 AM Wixon, Donna <dwixon@blm.gov> wrote:

Joshua,

I will be in the field for the next 2 weeks. Shelly and Sarah?

Thanks,
Donna

Donna L Wixon
Natural Resource Specialist
BLM Arctic District Office
222 University Ave
Fairbanks, Alaska 99709
907-474-2301 Office
907-474-2386 Fax
dwixon@blm.gov

On Wed, Jun 13, 2018 at 11:03 AM, Rose, Joshua <joshua_rose@fws.gov> wrote:

Donna,

Since we are having our alternatives development meeting next week on Tuesday and Wednesday do you want to try to reschedule next week's meeting or do you want to skip it? I will be out Thursday and Friday so Monday would be best.

Thanks,
Josh

--

Joshua Rose
Aquatic Ecologist
USFWS Region 7 I&M
[101 12th Ave., Rm 216](#)
[Fairbanks, AK 99701](#)

phone: (907) 456-0409

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Subject: Draft EA and notice to reviewers
Date: Monday, June 18, 2018 5:51:42 PM
Attachments: [DRAFT Seismic EA Chapter 3 Existing Condition 06182018.docx](#)
[Notice to Reviewers Seismic EA Chapter 3 Existing Conditions 06182018.pdf](#)

Wendy,

Attached is the draft EA and notice to reviewers. I have gone back through to correct any formatting errors that occurred in the conversion from google docs to word. Let me know if there is anything else you need me to do.

Thanks,
Josh

--

Joshua Rose
Aquatic Ecologist
USFWS Region 7 I&M
101 12th Ave., Rm 216
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Mitch Ellis](#); [Eric Taylor](#); [Sara Boario](#)
Subject: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports
Date: Monday, June 18, 2018 6:10:00 PM
Attachments: [DRAFT Seismic EA Chapter 3 Existing Condition 06182018.docx](#)
[Notice to Reviewers Seismic EA Chapter 3 Existing Conditions 06182018.pdf](#)
Importance: High

Hi Mary, Mitch, Eric and Sara,

Attached is a draft of the Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports requested by BLM Arctic Field Office in anticipation of a seismic application from SAE.

It was agreed that this would go out for concurrent review to all ARDs in order to meet the rapid timeline. The desired date to BLM was set as 6/22 so that BLM Arctic Field office staff can use it as a basis to start identifying issue and environmental consequences. However, FWS has not been notified by BLM that a complete application for a seismic permit has been submitted, 65-DP
 I will check in on Thursday afternoon to get your feedback on timeline.

I will send the original note to reviewers down to Anchorage with Mary this week.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Bud Cribley](#)
Subject: Re: Updated Webinar info: FWS Workshop on Alternatives for Coastal Plain Leasing EIS/Seismic EA 6/19-20
Date: Tuesday, June 19, 2018 7:57:21 AM

That sounds great! I should have asked you to do the intro to NPRA that I put together as an example of what we are headed towards. Feel free to speak up on anything!

Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 19, 2018, at 05:37, Bud Cribley <bud_cribley@fws.gov> wrote:

Wendy,

I was going to listen in to at least the first portion of your workshop today. I don't have anything to say, I just want to hear the direction Greg is giving and hear the feedback. I want to try to stay on the same page as you all and not cause any problems.

If you or Greg have any thoughts or concerns let me know. I'm really regretting not at least asking the question if I could attend. It should be interesting and its Alaska.

Bud

On Mon, Jun 18, 2018 at 7:55 PM Wendy Loya <wendy_loya@fws.gov> wrote:

NEW Webinar info if you are joining remotely (we cannot use Vidyo with ArcGIS Pro). If you don't have MyMeetings software downloaded, look for the link to RUN A TEMPORARY APPLICATION. That typically works just as well.

- 1. Join the meeting:** b5-CIP
- 2. Enter the required fields.**
- 3. Indicate that you have read the Privacy Policy.**
- 4. Click on Proceed.**

Same phone: b5-CIP

And the countdown is on...

See you tomorrow,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wendy Loya [mailto:wendy_loya@fws.gov]

Sent: Sunday, June 17, 2018 5:19 PM

To: Paul Leonard <paul_leonard@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Randy Brown <randy_j_brown@fws.gov>; Doug Damberg <doug_damberg@fws.gov>; Jennifer Reed <jennifer_reed@fws.gov>; Joanna Fox <joanna_fox@fws.gov>; Hollis Twitchell <hollis_twitchell@fws.gov>; Drew Crane <drew_crane@fws.gov>; Lynnda Kahn <lynnda_kahn@fws.gov>; Angela Matz <angela_matz@fws.gov>; Christopher Latty <christopher_latty@fws.gov>; Patrick O'Dell <patrick_odell@fws.gov>; Carl Johnson <carl_johnson@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Stephen Arthur <stephen_arthur@fws.gov>; Steve Berendzen <steve_berendzen@fws.gov>; Joshua Ream <joshua_ream@fws.gov>; Eric Taylor <eric_taylor@fws.gov>; Catherine Collins <catherine_collins@fws.gov>; Socheata Lor <socheata_lor@fws.gov>; Roger Kaye <roger_kaye@fws.gov>; Edward Decleva <edward_decleva@fws.gov>; Tim Allen <tim_allen@fws.gov>; Ryan Wilson <ryan_r_wilson@fws.gov>; Joshua Rose <joshua_rose@fws.gov>; Christopher Putnam <christopher_putnam@fws.gov>; Kevin Doherty <kevin_doherty@fws.gov>; Todd Hopkins <todd_hopkins@fws.gov>; Tracy Fischbach <tracy_fischbach@fws.gov>; Karen Clark <karen_clark@fws.gov>; Greg Siekaniec <greg_siekaniec@fws.gov>; Bud Cribley <bud_cribley@fws.gov>; 'Agnew Beck' <meghan@agnewbeck.com>; Sara Boario <sara_boario@fws.gov>; Mary Colligan <mary_colligan@fws.gov>

Subject: Agenda for FWS Workshop on Alternatives for Coastal Plain Leasing EIS/Seismic EA 6/19-20

Dear FWS "1002" team,

Attached is the agenda for the FWS Internal Alternatives Workshop for the Arctic Refuge Coastal Plain Leasing EIS. I am excited to have so many of our staff experts join us in Fairbanks; we will meet in the Refuges Conference room on the 2nd floor of the Fairbanks Field Office/Federal Building downtown. Greg Siekaniec will be opening the workshop at 8:30am on Tuesday, and we hope to be done by 4:30pm both days. We are happy to have Meghan Holtan from Agnew Beck as our facilitator.

The workshop will focus on the spatial component of developing alternatives for the Arctic Refuge Coastal Plain, including availability of lands for leasing and stipulations/best management practices (BMPs) that would protect sensitive resources. There are many BMPs that are used to protect resources that we won't have time to discuss as a group, but which we will solicit feedback on between June 21-July 6th, prior to the BLM Alternatives workshop. You can see all of the NPRA Stipulations and BMPs in the attached excel workbook which organizes the NPRA Final IAP/EIS Table 2.3 by the topics. I will have copies on hand at the workshop.

FYI, we will join the BLM/EMPSi-hosted "Coastal Plain Leasing EIS Affected Environment Kick-off" on Weds at 10am.

A few logistical notes:

Please take the elevator when you come in the North side main entrance and go to 2nd floor. You will get locked in stairwells unless your PIV card is active for the Fairbanks Field Office building.

A few who can't attend can connect via Vidyo and phone, see the agenda for connection info.

I have made a reservation for the group to go to dinner at Chena Pump House Tuesday evening at 6pm. We will have plenty of vehicles to shuttle those that don't have transportation.

If you have indicated you are not able to attend... don't fret, we'll continue to

gather information and feedback until the BLM-hosted workshop on July 9th.

Thank you, and see you soon! Don't hesitate to contact me with any questions,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Bud C Cribley

Senior Advisor for Energy with the U.S. Fish & Wildlife Service

Office # 202-208-4331

Cell # 907-717-5141

Office # MIB 3341

email: bud_cribley@fws.gov

From: [Wendy Loya](#)
To: [Frerich, Lucille](#)
Cc: [Colligan, Mary](#)
Subject: Re: 1002 letter
Date: Tuesday, June 19, 2018 9:09:06 AM

I am not able to come by to do that, I am in Fairbanks. Will touch base with Greg this morning and come up with a plan.

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 19, 2018, at 07:05, Frerich, Lucille <lucille_frerich@fws.gov> wrote:

Mary: I have it - Greg didn't sign it until after 4:00 yesterday.

Wendy: I have the letter on my desk if you could come and get it. Greg did make mention of it being hand delivered.

Lucy

Lucille Frerich
Secretary, Fisheries & Ecological Services
U.S. Fish & Wildlife Service
1011 E. Tudor Rd MS-361
Anchorage, AK 99503
907 786-3856 Fax: 907 786-3848

On Mon, Jun 18, 2018 at 5:33 PM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Lucy - Greg said he signed the 1002 letter this afternoon. Do you have it? Just want to make sure we send it electronically to BLM tomorrow morning. It should go from either Wendy or Greg (or the RD office).

Thanks for all of your help!

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
[1011 E. Tudor Road](#), MS-361
Anchorage, AK 99503
907-786-3505

cell: 907-223-5945

From: [Colligan, Mary](#)
To: [Frerich, Lucille](#)
Cc: [Wendy Loya](#)
Subject: Re: 1002 letter
Date: Tuesday, June 19, 2018 9:52:24 AM

Lucy - Can you please scan it in and send it to Greg and he will send it electronically to BLM?

Thank you!!!!

On Tue, Jun 19, 2018 at 7:05 AM, Frerich, Lucille <lucille_frerich@fws.gov> wrote:

Mary: I have it - Greg didn't sign it until after 4:00 yesterday.

Wendy: I have the letter on my desk if you could come and get it. Greg did make mention of it being hand delivered.

Lucy

Lucille Frerich
Secretary, Fisheries & Ecological Services
U.S. Fish & Wildlife Service
[1011 E. Tudor Rd](#) MS-361
Anchorage, AK 99503
907 786-3856 Fax: 907 786-3848

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Thanks for all of your help!

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Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
[1011 E. Tudor Road](#), MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services

0000008354

U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Subject: Fwd: 1002 letter
Date: Tuesday, June 19, 2018 1:18:56 PM
Attachments: [Untitled attachment 00391.htm](#)
[Notice of Intent to prepare EIS.pdf](#)

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

From: **Greg Siekaniec** <greg_siekaniec@fws.gov>
Date: Tue, Jun 19, 2018 at 11:18 AM
Subject: Fwd: 1002 letter
To: mnhayes@blm.gov
Cc: kmourits@blm.gov, karen_clark@fws.gov, mary_colligan@fws.gov,
mitch_ellis@fws.gov

Nicole,

Please find our scoping comments attached.

Best,

Greg



--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Brown, Randy](#)
To: [Wendy Loya](#)
Subject: Fwd: [EXTERNAL] Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off
Date: Tuesday, June 19, 2018 3:36:44 PM
Attachments: [CoastalEIS AE kickoff-Agnda 20180620.pdf](#)
[140L6318F0003_CoastalPlain_CH3Template_USFWS.pdf](#)
[Coastal-EIS_Ch3-StartupPackage_20180620_for_USFWS_ID_Team.pdf](#)
[Coastal Plain EIS DataNeedsReport_20180615_USFWS.pdf](#)

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

From: **Chad Ricklefs** <chad.ricklefs@empsi.com>
Date: Mon, Jun 18, 2018 at 5:48 PM
Subject: [EXTERNAL] Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off
To: "patrick_odell@fws.gov" <patrick_odell@fws.gov>, "joshua_rose@fws.gov" <joshua_rose@fws.gov>, "paul_leonard@fws.gov" <paul_leonard@fws.gov>, "edward_decleva@fws.gov" <edward_decleva@fws.gov>, "peter_butteri@fws.gov" <peter_butteri@fws.gov>, "tim_allen@fws.gov" <tim_allen@fws.gov>, "catherine_collins@fws.gov" <catherine_collins@fws.gov>, "randy_j_brown@fws.gov" <randy_j_brown@fws.gov>, "christopher_latty@fws.gov" <christopher_latty@fws.gov>, "eric_taylor@fws.gov" <eric_taylor@fws.gov>, "ryan_r_wilson@fws.gov" <ryan_r_wilson@fws.gov>, "stephen_arthur@fws.gov" <stephen_arthur@fws.gov>, "hollis_twitchell@fws.gov" <hollis_twitchell@fws.gov>, "carl_johnson@fws.gov" <carl_johnson@fws.gov>, "joshua_ream@fws.gov" <joshua_ream@fws.gov>, "susan_lakomski@fws.gov" <susan_lakomski@fws.gov>, "jennifer_reed@fws.gov" <jennifer_reed@fws.gov>, "angela_matz@fws.gov" <angela_matz@fws.gov>, "roger_kaye@fws.gov" <roger_kaye@fws.gov>, "john_brewer@fws.gov" <john_brewer@fws.gov>, "john_w_martin@fws.gov" <john_w_martin@fws.gov>
Cc: "Hayes, Miriam (Nicole)" <mnhayes@blm.gov>, Amy Lewis <amy.lewis@empsi.com>

Please find the following items attached for the Chapter 3 kick-off call.

- Agenda
- Start-up Package
- Chapter 3 template
- Data Need

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.
3005 Center Green Drive, Suite 205
Boulder, CO 80301
direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707

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--

Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

From: [Chad Ricklefs](#)
To: [Amy Lewis](#); [Amy Cordle](#); [liz.sears@srbak.com](#); [Angie Adams](#); [jake.anders@srbak.com](#); [larsan@dowl.com](#); [sbishop@abrinc.com](#); [srb@srbak.com](#); [patrick.burden@norecon.com](#); [bburgess@abrinc.com](#); [Lindsay Chipman](#); [leah.cuyno@norecon.com](#); [mike.downs@norecon.com](#); [Kevin Doyle](#); [michael.fisher@norecon.com](#); [jifrost@abrinc.com](#); [Zoe Ghali](#); [Hayes, Miriam \(Nicole\)](#); [Peter Gower](#); [Derek Holmgren](#); [paul.lawrence@srbak.com](#); [ed.liebsch@hdrinc.com](#); [amorrill@dowl.com](#); [Dan Morta](#); [Katie Patterson](#); [ppribyl@dowl.com](#); [aprichard@abrinc.com](#); [Kevin Rice](#); [don.schug@norecon.com](#); [jseigle@abrinc.com](#); [sean.teeter@hdrinc.com](#); [patricia.terhaar@hdrinc.com](#); [Meredith Zaccherio](#); [jon.zufelt@hdrinc.com](#); [wendy_loya@fws.gov](#); [steve.masterman@alaska.gov](#); [paul.decker@alaska.gov](#); [rbrumbau@blm.gov](#); [jchmielowski@blm.gov](#); [jgalluzz@blm.gov](#); [sguyer@blm.gov](#); [kpeck@blm.gov](#); [remnitz@blm.gov](#); [r2king@blm.gov](#); [jkeeney@blm.gov](#); [tstclair@blm.gov](#); [memiller@nps.gov](#); [mwhitman@blm.gov](#); [ctburns@blm.gov](#); [craig.perham@boem.gov](#); [david.rogers@alaska.gov](#); [ejulianus@blm.gov](#); [sdallen@blm.gov](#); [dwixon@blm.gov](#); [rgoodwin@blm.gov](#); [tbicka@blm.gov](#); [slongan@blm.gov](#); [mmccrum@blm.gov](#); [kdebenham@blm.gov](#); [chillis@blm.gov](#); [chamfler@blm.gov](#); [patrick.odell@fws.gov](#); [joshua.rose@fws.gov](#); [paul.leonard@fws.gov](#); [edward.deceva@fws.gov](#); [peter.butteri@fws.gov](#); [tim.allen@fws.gov](#); [catherine.collins@fws.gov](#); [randy.j.brown@fws.gov](#); [christopher.latty@fws.gov](#); [eric.taylor@fws.gov](#); [ryan.r.wilson@fws.gov](#); [stephen.arthur@fws.gov](#); [hollis.twitchell@fws.gov](#); [carl.johnson@fws.gov](#); [joshua.ream@fws.gov](#); [susan.lakomski@fws.gov](#); [jennifer.reed@fws.gov](#); [angela.matz@fws.gov](#); [roger.kaye@fws.gov](#); [john.brewer@fws.gov](#); [john.w.martin@fws.gov](#)
Cc: [Marcia Rickey](#); [Kohl, Anna J.](#)
Subject: [EXTERNAL] Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off
Date: Tuesday, June 19, 2018 9:13:27 PM
Attachments: [Coastal-EIS_contact_list_20180619.pdf](#)

A contact list cross walking BLM IDT specialists and EMPSi ID team specialists is attached. Please review for accuracy and send any comments to Amy Lewis (amy.lewis@empesi.com). We will discuss communication between ID team specialists on tomorrow's call.

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707

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From: [Wendy Loya](#)
To: [John Trawicki](#); [Drew Crane](#); [Steve Berendzen](#); [Joanna Fox](#); [Stephanie Brady](#); [Eric Taylor](#); [Mitch Ellis](#); [Socheata Lor](#); [Doug Damberg](#); [Sara Boario](#); [Mary Colligan](#); [Greg Siekaniec](#); [Karen Clark](#)
Subject: FW: [EXTERNAL] Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off
Date: Wednesday, June 20, 2018 3:10:00 PM
Attachments: [CoastalEIS_AE_kickoff-Agnda_20180620.pdf](#)
[140L6318F0003_CoastalPlain_CH3Template_USFWS.pdf](#)
[Coastal-EIS_Ch3-StartupPackage_20180620_for_USFWS_ID_Team.pdf](#)
[Coastal Plain EIS_DataNeedsReport_20180615_USFWS.pdf](#)

Dear RDT and POCs,

I am not sure who all received this, so sending it to the 1002 leadership group. Attached are materials sent for the initiation of the EIS Affected Environment section. It will be combined with the Environmental consequences section in the DEIS.

It will be helpful to the Leasing EIS process if we share the Draft Affected Environment Section for the Seismic EA when it is reviewed and approved by the RDT. Sharing that document will save significant staff time in sharing their expertise with BLM and the Contractor.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

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

From: **Chad Ricklefs** <chad.ricklefs@empfi.com>
Date: Mon, Jun 18, 2018 at 5:48 PM
Subject: [EXTERNAL] Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off
To: "patrick_odell@fws.gov" <patrick_odell@fws.gov>, "joshua_rose@fws.gov" <joshua_rose@fws.gov>, "paul_leonard@fws.gov" <paul_leonard@fws.gov>, "edward_decleva@fws.gov" <edward_decleva@fws.gov>, "peter_butteri@fws.gov" <peter_butteri@fws.gov>, "tim_allen@fws.gov" <tim_allen@fws.gov>, "catherine_collins@fws.gov" <catherine_collins@fws.gov>, "randy_j_brown@fws.gov" <randy_j_brown@fws.gov>, "christopher_latty@fws.gov" <christopher_latty@fws.gov>, "eric_taylor@fws.gov" <eric_taylor@fws.gov>, "ryan_r_wilson@fws.gov" <ryan_r_wilson@fws.gov>, "stephen_arthur@fws.gov" <stephen_arthur@fws.gov>, "hollis_twitchell@fws.gov" <hollis_twitchell@fws.gov>, "carl_johnson@fws.gov" <carl_johnson@fws.gov>, "joshua_ream@fws.gov" <joshua_ream@fws.gov>, "susan_lakomski@fws.gov" <susan_lakomski@fws.gov>, "jennifer_reed@fws.gov" <jennifer_reed@fws.gov>, "angela_matz@fws.gov" <angela_matz@fws.gov>, "roger_kaye@fws.gov" <roger_kaye@fws.gov>, "john_brewer@fws.gov"

0000008361

<john_brewer@fws.gov>, "john_w_martin@fws.gov" <john_w_martin@fws.gov>
Cc: "Hayes, Miriam (Nicole)" <mnhayes@blm.gov>, Amy Lewis <amy.lewis@empsi.com>

Please find the following items attached for the Chapter 3 kick-off call.

- Agenda
- Start-up Package
- Chapter 3 template
- Data Need

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707

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--

Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

From: [Allen, Tim](#)
To: [Wendy Loya](#)
Subject: Re: Attendance at the Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off June 20 2018
Date: Wednesday, June 20, 2018 3:37:28 PM

Thank you !!!

Both of us are on.

On Wed, Jun 20, 2018 at 3:33 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Are you two joining the call now for the AQ section?

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Collins, Catherine [mailto:catherine_collins@fws.gov]
Sent: Wednesday, June 20, 2018 10:13 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Attendance at the Coastal Plain Oil and Gas Leasing Program EIS: Affected Environment Kick-off June 20 2018

Hi Wendy,

Tim Allen and I both were on the call today.
Please let me know if you need anything else.

Catherine Collins, Environmental Engineer

U.S. Fish and Wildlife Service

Branch of Air and Water Quality Resources

[7333 W. Jefferson Ave., Suite 375](#)

[Lakewood, CO 80235-2034](#)

303-914-3807

(303) 969-5444 fax

Catherine_Collins@fws.gov

--

Tim Allen

U.S. Fish & Wildlife Service

(303) 914-3802

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Cc: [Mitch Ellis](#); [Eric Taylor](#); [Sara Boario](#)
Subject: Re: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports
Date: Thursday, June 21, 2018 11:33:46 AM
Attachments: [DRAFT Seismic EA Chapter 3 Existing Condition 06182018 MAC\(1\).docx](#)

I have attached my comments and suggested edits. I don't know if others have already completed their reviews or if they want to add to this. I have the note to reviewer so can sign that and note I submitted comments electronically.

If others let me know where they are in their review I can move the note to reviewer accordingly.

Thanks

On Mon, Jun 18, 2018 at 4:10 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Mary, Mitch, Eric and Sara,

Attached is a draft of the Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports requested by BLM Arctic Field Office in anticipation of a seismic application from SAE.

It was agreed that this would go out for concurrent review to all ARDs in order to meet the rapid timeline. The desired date to BLM was set as 6/22 so that BLM Arctic Field office staff can use it as a basis to start identifying issue and environmental consequences. However, FWS has not been notified by BLM that a complete application for a seismic permit has been submitted, b5-DP [REDACTED] [REDACTED]” I will check in on Thursday afternoon to get your feedback on timeline.

I will send the original note to reviewers down to Anchorage with Mary this week.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Mitch Ellis](#); [Mary Colligan](#); [Sara Boario](#); [Eric Taylor](#)
Cc: [Charles Frost](#)
Subject: RE: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports
Date: Thursday, June 21, 2018 11:44:00 PM
Attachments: [DRAFT Seismic EA Chapter 3 Existing Condition 06182018 MAC WML.docx](#)

Hi ARDs,

I have gone through Mary's comments and accepted most edits. I have responded to a few comments where I felt a change was not needed. b5-DP [REDACTED]

I have not heard from Sara and Eric, so sending this draft in case they will review Friday morning. Karen C will have to review this weekend as she is out next week, and Greg leaves for a trip also on Monday evening I believe.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Mitch Ellis [mailto:mitch_ellis@fws.gov]
Sent: Thursday, June 21, 2018 6:06 PM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Mary Colligan <mary_colligan@fws.gov>; Eric Taylor <eric_taylor@fws.gov>; Sara Boario <sara_boario@fws.gov>
Subject: Re: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports

Wendy - b5-DP [REDACTED] There are a few typos including words that are capitalized that probably shouldn't be but I think Mary caught most of them. I didn't get a chance to look at the specialist reports. b5-DP [REDACTED]. Thanks

Sent from my iPhone

On Jun 21, 2018, at 2:15 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Mitch an others,

SAE is moving forward today with their application to BLM. We also had a kickoff for the Draft affected environment for the Leasing EIS yesterday and FWS will soon be inundated with requests for information to meet the very short deadline for those chapters. We could greatly minimize duplicative effort if we get this to BLM 'immediately.' We really need to move this forward this

week and allow staff and the RDT to focus on the Alternatives next week. As well as QRP/SSP proposals coming your way Monday.

Thank you, it is only getting busier.

Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska

[907.786.3532](tel:907.786.3532) (office)

[907.227.2942](tel:907.227.2942) (mobile)

On Jun 21, 2018, at 10:05, Mitch Ellis <mitch_ellis@fws.gov> wrote:

Wendy - would it be possible to push our internal review deadline to early next week? I won't have time to do a thorough review this week.

Sent from my iPhone

On Jun 18, 2018, at 8:10 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Mary, Mitch, Eric and Sara,

Attached is a draft of the Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports requested by BLM Arctic Field Office in anticipation of a seismic application from SAE.

It was agreed that this would go out for concurrent review to all ARDs in order to meet the rapid timeline. The desired date to BLM was set as 6/22 so that BLM Arctic Field office staff can use it as a basis to start identifying issue and environmental consequences. However, FWS has not been notified by BLM that a complete application for a seismic permit has been submitted, **b5-DP**
[REDACTED] I will check in on Thursday afternoon to get your feedback on timeline.

I will send the original note to reviewers down to Anchorage with Mary this week.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

<DRAFT_Seismic_EA_Chapter_3_Existing_Condition_06182018.docx>

<Notice_to_Reviewers_Seismic_EA_Chapter_3_Existing_Conditions_06182018.pdf>

From: [Taylor, Eric](#)
To: [Wendy Loya](#)
Cc: [Mitch Ellis](#); [Mary Colligan](#); [Sara Boario](#); [Charles Frost](#)
Subject: Re: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports
Date: Friday, June 22, 2018 3:06:19 AM
Attachments: [DRAFT Seismic EA Chapter 3 Existing Condition 06182018 MAC-ejt.docx](#)

Hello Wendy -

Attached is my review. I added my edits, corrections, re-writes, and comments to Mary's document. Nearly all are quick fixes but several comments may need you to circle back to an author(s) for clarification.

My review is restricted to the first 13 pages i.e., I assumed the Specialist Reports/Appendices had already received reviews. I apologize if I am wrong but given the short turn around time, lack of MBM personnel in the Regional Office, and finally being on annual leave, this is the best we can do.

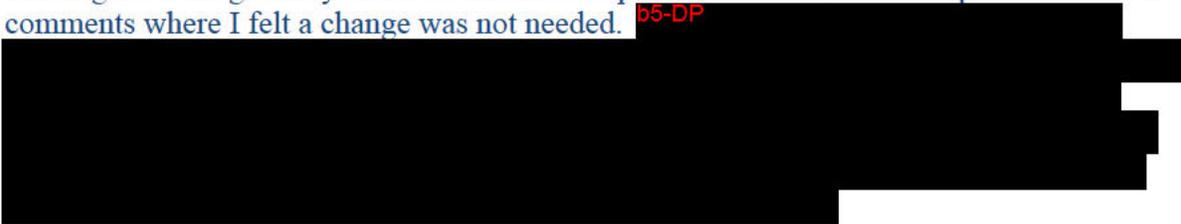
Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Thu, Jun 21, 2018 at 9:44 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi ARDs,

I have gone through Mary's comments and accepted most edits. I have responded to a few comments where I felt a change was not needed. b5-DP



I have not heard from Sara and Eric, so sending this draft in case they will review Friday morning. Karen C will have to review this weekend as she is out next week, and Greg leaves for a trip also on Monday evening I believe.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Mitch Ellis [mailto:mitch_ellis@fws.gov]

Sent: Thursday, June 21, 2018 6:06 PM

To: Wendy Loya <wendy_loya@fws.gov>

Cc: Mary Colligan <mary_colligan@fws.gov>; Eric Taylor <eric_taylor@fws.gov>; Sara Boario <sara_boario@fws.gov>

Subject: Re: Note to Reviewer: Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports

Wendy - b5-DP [REDACTED] There are a few typos including words that are capitalized that probably shouldn't be but I think Mary caught most of them. I didn't get a chance to look at the specialist reports. b5-DP [REDACTED]

[REDACTED] Thanks

Sent from my iPhone

On Jun 21, 2018, at 2:15 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Mitch and others,

SAE is moving forward today with their application to BLM. We also had a kickoff for the Draft affected environment for the Leasing EIS yesterday and FWS will soon be inundated with requests for information to meet the very short deadline for those chapters. We could greatly minimize duplicative effort if we get this to BLM 'immediately.' We really need to move this forward this week and allow staff and the RDT to focus on the Alternatives next week. As well as QRP/SSP proposals coming your way Monday.

Thank you, it is only getting busier.

0000008370

Wendy

Dr. Wendy M. Loya, Coordinator

Office of Science Applications- Arctic Program

Anchorage, Alaska

[907.786.3532](tel:907.786.3532) (office)

[907.227.2942](tel:907.227.2942) (mobile)

On Jun 21, 2018, at 10:05, Mitch Ellis <mitch_ellis@fws.gov> wrote:

Wendy - would it be possible to push our internal review deadline to early next week? I won't have time to do a thorough review this week.

Sent from my iPhone

On Jun 18, 2018, at 8:10 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Mary, Mitch, Eric and Sara,

Attached is a draft of the Coastal Plain Seismic EA Draft Affected Environment Chapter and Specialist Reports requested by BLM Arctic Field Office in anticipation of a seismic application from SAE.

It was agreed that this would go out for concurrent review to all ARDs in order to meet the rapid timeline.

The desired date to BLM was set as 6/22 so that BLM Arctic Field office staff can use it as a basis to start identifying issue and environmental consequences. However, FWS has not been notified by BLM that a complete application for a seismic permit has been submitted. ^{b5-DP}

I will check in on Thursday afternoon to get your feedback on timeline.

I will send the original note to reviewers down to Anchorage with Mary this week.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

<DRAFT_Seismic_EA_Chapter_3_
Existing_Condition_06182018.docx>

<Notice_to_Reviewers_Seismic_
EA_Chapter_3_Existing_Conditions_06182018.pdf>

From: [Wendy Loya](#)
To: [Jennifer Reed](#); [Steve Berendzen](#)
Subject: Edits to WSR section of Seismic EA
Date: Friday, June 22, 2018 9:12:00 AM
Attachments: [Wild and Scenic Rivers suggested edits 062218.docx](#)

Hi Jen,

I am suggesting further edits to the WSR section of the EA to capture what you conveyed in conversations and the workshop this week a little more clearly. Can you review the attached and make any corrections necessary? b5-DP [REDACTED]

I need to get this to Karen and Greg today, so grateful if you could try to look at it this morning. I am driving from Fairbanks to Anchorage from about 8am – 2pm, so may not be available to respond to questions until this afternoon.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Berendzen, Steve](#)
To: [Wendy Loya](#); [Joanna Fox](#)
Cc: [Jennifer Reed](#)
Subject: Re: Edits to WSR section of Seismic EA
Date: Friday, June 22, 2018 4:42:56 PM

Wendy,

Jen is on leave today, so I looked at this while trying to recall anything about the discussion on WSR's. **b5-DP**

Sorry we didn't get any changes to you.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Fri, Jun 22, 2018 at 7:12 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Jen,

I am suggesting further edits to the WSR section of the EA to capture what you conveyed in conversations and the workshop this week a little more clearly. Can you review the attached and make any corrections necessary? **b5-DP**

I need to get this to Karen and Greg today, so grateful if you could try to look at it this morning. I am driving from Fairbanks to Anchorage from about 8am – 2pm, so may not be available to respond to questions until this afternoon.

Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Mary Colligan](#)
Subject: Re: 1002
Date: Friday, June 22, 2018 6:02:36 PM

Sounds good, I am in the office incorporating a few last edits and will get it to KC and GS in the next half hour.

Thanks for all your help, you've helped make this a better document.

Wendy
Dr. Wendy M. Loya, Coordinator
Office of Science Applications -Arctic Program
US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

On Fri, Jun 22, 2018 at 4:00 PM Colligan, Mary <mary_colligan@fws.gov> wrote:

Wendy - I spoke with Karen earlier and she said you were on your way back to Anchorage and would be finishing edits on the Affected Environment later today or tomorrow. We thought it would be good to have a transmittal memo when the draft is sent so it is clear in our record. I have put together the attached simple memo that could be used if you agree with that suggestion.

Thank you - and let me know if there is anything I can do to help

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Karen Clark](#); [Greg Siekaniec](#)
Subject: Draft Affected Environment for Seismic EA for review
Date: Friday, June 22, 2018 6:53:00 PM
Attachments: [DRAFT Arctic Refuge Coastal Plain Seismic EA 062218.docx](#)
[Coastal Plain Seismic EA Affected Environment transmittal.docx](#)
[Coastal Plain Leasing EIS Affected Environment transmittal.docx](#)

Hi Greg and Karen,

Attached is the draft Affected Environment chapter prepared by FWS staff for the EA being prepared by BLM in response to the incoming seismic application from SAE. On Thursday 6/21/18, SAE presented an overview of their seismic operations to BLM and FWS (myself, Steve B and Joanna) at the BLM Arctic Field Office and provided written responses to the questions that BLM had submitted in order to move forward with SAE's request for a permit. It was reviewed by Mary, Eric and Mitch, while Sara was unavailable.

As the two transmittal memos indicate, this document will also be shared with Nicole Hayes at the BLM State Office for the Leasing EIS also. This should help BLM and their contractor as they begin to draft the Affected Environment section for that document as of 6/20/18.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Karen Clark](#)
To: wendy_loya@fws.gov
Subject: Re: Draft Affected Environment for Seismic EA for review
Date: Saturday, June 23, 2018 7:04:30 PM

Hey Wendy, thanks so much for getting this us! I plan to do a review tomorrow while I am on the plane- I will send my thoughts then. I'm my quick review, things look great— so appreciate your work in getting it where it is :)

Hope you have been able to enjoy your weekend!!
Karen

Sent from my iPhone

On Jun 23, 2018, at 10:45 AM, Greg Siekaniec <greg_siekaniec@fws.gov> wrote:

Wendy,

Thanks for quick response. b5-DP [REDACTED]

[REDACTED] Otherwise, please provide to BLM appropriately noted as pre-decisional on all pages after you hear from Karen. She will be looking at it today or tomorrow morning.

Greg

Sent from my iPhone

On Jun 23, 2018, at 10:40 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Greg,

Thanks for your comments...

b5-DP [REDACTED]

b5-DP [REDACTED]

Let me know how to proceed, and can try to turn something around

b5-DP

[Redacted text block]

[Redacted text block]

Thanks and I will try and reach Karen to see if she is okay with the draft.

Greg

Sent from my iPhone

On Jun 22, 2018, at 4:53 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

From: [Karen Clark](#)
To: [Greg Siekaniec](#)
Cc: [Wendy Loya](#)
Subject: Re: Draft Affected Environment for Seismic EA for review
Date: Sunday, June 24, 2018 3:09:05 PM

Hey Wendy, I agree with Greg's comments and don't have anything to add at this point. I appreciate all of your work! Getting this done while also managing the alternatives workshop was no small task.

Thanks for all you are doing in managing this effort.

Karen

Sent from my iPhone

On Jun 23, 2018, at 11:45 AM, Greg Siekaniec <greg_siekaniec@fws.gov> wrote:

Wendy,

Thanks for quick response. b5-DP [REDACTED]

[REDACTED] Otherwise, please provide to BLM appropriately noted as pre-decisional on all pages after you hear from Karen. She will be looking at it today or tomorrow morning.

Greg

Sent from my iPhone

On Jun 23, 2018, at 10:40 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Greg,

Thanks for your comments...

b5-DP [REDACTED]

[REDACTED]

[REDACTED]

Let me know how to proceed, and can try to turn something around tomorrow.
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 23, 2018, at 10:22, Greg Siekaniec
<greg_siekaniec@fws.gov> wrote:

Good Morning Wendy,

Well done. Thank you for the draft. b5-DP [REDACTED]

[REDACTED]

[REDACTED]

b5-DP

[Redacted]

[Redacted]

Thanks and I will try and reach Karen to see if she is okay with the draft.

Greg

Sent from my iPhone

On Jun 22, 2018, at 4:53 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

From: [Wendy Loya](#)
To: [Steve Berendzen](#)
Subject: Priorities
Date: Monday, June 25, 2018 1:36:00 PM

Hey Steve,

Just got out of a meeting with Greg to make sure we are on track, and I think he is comfortable with our plan for sharing info on Friday with RDT.

To make sure you (and thus your staff) and I are on the same page, this is how I see current priorities for staff on the 1002 program, based on deadlines:

- 1) Editing Stipulations and BMPs to reflect protection of refuge purposes by Wednesday for Friday RDT; towards getting to “map”
- 2) Narrative regarding our “Preferred Alternative” can continue into next week, as that is primarily for us to convey the values to external audience
- 3) Responding to requests for information for the Affected Environment section for Leasing EIS. We will send out the affected environment today and that plus the Resource Assessments should be good to get contractors started, with our staff jumping in as soon as #1 and #2 are done.

Thank you, give a call if you have concerns or I am overlooking something 😊

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Christopher Putnam](#)
To: lawhead@abrinc.com; [Perham, Craig](#); [Wendy Loya](#)
Subject: Re: [EXTERNAL] Report/GIS request for ANWR Coastal Plain Leasing EIS
Date: Monday, June 25, 2018 1:55:40 PM
Attachments: [2018 ANWR PB Den IR Survey Coordinates.xlsx](#)
[FWS_Polar.Bear.Den_2018_AIR_Final.Report.pdf](#)
[2.18.2018_evening.flight.kml](#)
[2.19.2018_morning.flight.kml](#)
[2.18.2018_morning.flight.kml](#)
[2.21.2018_evening.flight.kml](#)
[2.27.2018_morning.flight.kml](#)
[2.28.2018_evening.flight.kml](#)

Wendy, Brian, and Craig,

Attached is a copy of the report and supporting materials from aerial infrared polar bear den survey we conducted using Owyhee Air Research last February in the coastal plain of the Arctic National Wildlife Refuge. The report summarizes the survey effort and results, the spreadsheet contains the coordinates of the polar bear dens and other interesting "hotspots" we identified, and the GIS files show the aircraft tracks for the various says of the survey. We also have GIS files for the camera viewsheds during the survey, and the video files, if interested. All this information is considered public now that the bears have abandoned their dens for the season. Let me know if you need anything else.

Christopher Putnam
Supervisory Fish and Wildlife Biologist
Marine Mammals Management
U.S. Fish & Wildlife Service
1011 East Tudor Rd, MS 341
Anchorage, AK 99503-6199
907-786-3844 office
907-268-0577 mobile
907-786-3816 fax

"All that is gold does not glitter, not all those who wander are lost; the old that is strong does not wither, deep roots are not reached by the frost."
-- J.R.R. Tolkien

On Mon, Jun 25, 2018 at 9:39 AM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Christopher,

Can you see the request below from Brian at ABR, one of the contractors for the Arctic Refuge Coastal Plain Leasing EIS, regarding info from the April 2018 FLIR survey?

Please include me in any responses so I can we have followed up.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Brian Lawhead <lawhead@abrinc.com>

Sent: Sunday, June 24, 2018 4:38 PM

To: wendy_loya@fws.gov

Cc: Craig Perham <craig.perham@boem.gov>; ctburns@blm.gov; Adrian Gall <agall@abrinc.com>; Terry Schick <tschick@abrinc.com>; Kevin Rice <kevin.rice@empsi.com>; Amy Lewis <amy.lewis@empsi.com>; Chad Ricklefs <chad.ricklefs@empsi.com>; mnhayes@blm.gov; coastalplainAR@empsi.com

Subject: [EXTERNAL] Report/GIS request for ANWR Coastal Plain Leasing EIS

Hi Wendy,

I'm working on the polar bear sections of the EIS, coordinating with Crag Perham of BOEM and Casey Burns of BLM. In a call last Thursday, Craig mentioned that a report had been produced on the FLIR survey flown by Owyhee Air Research last winter for polar bear dens in the ANWR Coastal Plain area. We are interested in obtaining a copy of that report, along with any accompanying GIS data such as den locations and survey tracklines, for use in drafting the EIS and planning mitigation measures.

I'm starting with you as the primary USFWS contact (while cc'ing a host of other folks), hoping you can pass me along to a more appropriate contact, if necessary. Thank you very much!

Best regards,

Brian

PS — I'll be out of the office during June 25–July 4, with infrequent access to email during the first 5 days.

Brian E. Lawhead

Senior Scientist

ABR, Inc.—Environmental Research & Services

PO Box 80410

Fairbanks, AK 99708

Phone (907) 455-6777 ext 121

Fax (907) 455-6781

www.abrinc.com

From: [Wendy Loya](#)
To: [Berendzen, Steve](#)
Cc: [Joanna Fox](#); [Joshua Rose](#)
Subject: Re: Priorities
Date: Monday, June 25, 2018 2:07:39 PM

Yes, weds afternoon.

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 25, 2018, at 12:05, Berendzen, Steve <steve_berendzen@fws.gov> wrote:

Thanks, Wendy - that sounds OK to me, but to be clear, you still want all the BMP & Stip changes/suggestions by COB Wednesday - right?

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Mon, Jun 25, 2018 at 11:36 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hey Steve,

Just got out of a meeting with Greg to make sure we are on track, and I think he is comfortable with our plan for sharing info on Friday with RDT.

To make sure you (and thus your staff) and I are on the same page, this is how I see current priorities for staff on the 1002 program, based on deadlines:

- 1) Editing Stipulations and BMPs to reflect protection of refuge purposes by Wednesday for Friday RDT; towards getting to “map”
- 2) Narrative regarding our “Preferred Alternative” can continue into next week, as that is primarily for us to convey the values to external audience
- 3) Responding to requests for information for the Affected Environment section for Leasing EIS. We will send out the affected environment today and that plus the Resource Assessments should be good to get contractors started, with our staff jumping in as soon as #1 and #2 are done.

Thank you, give a call if you have concerns or I am overlooking something 😊

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: RE: Stips and BMPs - Invitation to collaborate
Date: Monday, June 25, 2018 3:06:00 PM

Drew,

Given that you will be out of town when edits come in COB Weds, I do not expect you to review them. If you wanted to find someone to serve on your behalf, we could work them into the conversation on Thurs. Let me know what you think!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Crane, Drew <drew_crane@fws.gov>
Sent: Monday, June 25, 2018 1:04 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Stips and BMPs - Invitation to collaborate

Hey Wendy,

Is the expectation that the POCs will review once all edits have been made by resource specialists?

Thanks,

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

On Thu, Jun 21, 2018 at 4:19 PM, Wendy Loya (via Google Drive) <[drive-shares-noreply@google.com](#)> wrote:

[wendy_loya@fws.gov](#) has invited you to **contribute to** the following shared folder:


[Stips and BMPs](#)

Edits due no later than: Wednesday 6/27 4pm

Google Folder with Stipulations and BMPs from NPRA Table 2.3 for FWS Staff Experts to edit for applicability for 1002 area. Please only edit those documents for which you have knowledge and expertise in, all edits should be tracked, but formatting changes can be accepted to keep document as readable as possible.

Thank you, let Wendy know if you have any questions.

[Open](#)

Google Drive: Have all your files within reach from any device.

Google LLC, [1600 Amphitheatre Parkway, Mountain View, CA 94043, USA](#)

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: RE: Stips and BMPs - Invitation to collaborate
Date: Monday, June 25, 2018 3:20:00 PM

The EA AE is so old news, pshhh!

;))

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Crane, Drew <drew_crane@fws.gov>
Sent: Monday, June 25, 2018 1:10 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Stips and BMPs - Invitation to collaborate

Oohh, this is what you were talking about getting together to review. I was thinking you meant we would be looking at sections of the affected environment from the EA and building off of that. Sorry about that.

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

On Mon, Jun 25, 2018 at 1:06 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Drew,

Given that you will be out of town when edits come in COB Weds, I do not expect you to review them. If you wanted to find someone to serve on your behalf, we could work them into the conversation on Thurs. Let me know what you think!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Crane, Drew <drew_crane@fws.gov>

Sent: Monday, June 25, 2018 1:04 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Stips and BMPs - Invitation to collaborate

Hey Wendy,

Is the expectation that the POCs will review once all edits have been made by resource specialists?

Thanks,

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
[1011 E. Tudor Road](#)
[Anchorage, AK 99503](#)
907-786-3323

On Thu, Jun 21, 2018 at 4:19 PM, Wendy Loya (via Google Drive) <drive-shares-noreply@google.com> wrote:

wendy_loya@fws.gov has invited you to **contribute to** the following shared folder:


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Google Folder with Stipulations and BMPs from NPRA Table 2.3 for FWS Staff Experts to edit for applicability for 1002 area. Please only edit those documents for which you have knowledge and expertise in, all edits should be tracked, but formatting changes can be accepted to keep document as readable as possible.

Thank you, let Wendy know if you have any questions.

[Open](#)

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Google LLC, [1600 Amphitheatre Parkway, Mountain View, CA 94043, USA](#)



From: [Wendy Loya](#)
To: [Tracy Fischbach](#)
Subject: Sharing notes from workshop
Date: Monday, June 25, 2018 3:43:00 PM

Hi Tracy,

I don't want to be a bottleneck on the info in the notes you took, valuable info is in there that we can use to discuss the work staff are doing this week. Can you please share them with the following 1002 POCs:

John T
Drew C
Joanna
Steve B
Mary C

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [John Trawicki](#)
Cc: [Joshua Rose](#)
Subject: RE: Stips and BMPs - Invitation to collaborate
Date: Monday, June 25, 2018 5:21:00 PM

Sorry, Josh should have had access, must have just missed his name in the list. Apologies!!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>
Sent: Monday, June 25, 2018 3:16 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Stips and BMPs - Invitation to collaborate

Wendy-

We would like to add Josh Rose's expertise. Please provide Josh Rose access to folder. Thank you

On Thu, Jun 21, 2018 at 4:19 PM, Wendy Loya (via Google Drive) <drive-shares-noreply@google.com> wrote:

wendy_loya@fws.gov has invited you to **contribute** to the following shared folder:


[Stips and BMPs](#)

 Edits due no later than: Wednesday 6/27 4pm

Google Folder with Stipulations and BMPs from NPRA Table 2.3 for FWS Staff Experts to edit for applicability for 1002 area. Please only edit those documents for which you have knowledge and expertise in, all edits should be tracked, but formatting changes can be accepted to keep document as readable as possible.

Thank you, let Wendy know if you have any questions.

[Open](#)

Google Drive: Have all your files within reach from any device.

Google LLC, [1600 Amphitheatre Parkway, Mountain View, CA 94043, USA](#)



--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Wendy Loya](#)
To: [Nichelle \(Shelly\) Jones](#)
Cc: [Steve Berendzen](#); [Joanna Fox](#); [Joshua Rose](#)
Subject: RE: Draft Affected Environment Chapter for Seismic EA
Date: Monday, June 25, 2018 5:43:00 PM
Attachments: [DRAFT for BLM Arctic Refuge Coastal Plain Seismic EA 062518.docx](#)
[Coastal Plain Seismic EA Affected Environment transmittal.docx](#)
Importance: High

Hi Shelly,

I apologize, but I sent the Draft Affected Environment chapter without the necessary header (DRAFT for DOI Use – Pre-Decisional) and watermark showing that it was sent to BLM. Can you please retain this email and delete the one I sent at 3:35 pm?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, June 25, 2018 3:35 PM
To: Nichelle (Shelly) Jones <njones@blm.gov>
Cc: Steve Berendzen <steve_berendzen@fws.gov>; Joanna Fox <joanna_fox@fws.gov>; Joshua Rose <joshua_rose@fws.gov>
Subject: Draft Affected Environment Chapter for Seismic EA

Hi Shelly,

Attached is the Draft Affected Environment for Coastal Plain Seismic EA and transmittal memo. We look forward to continuing to work with you and your staff to ensure we provide the information necessary to complete NEPA for this project.

I will send the timeline that has the updated MMPA/ESA info and our current IDT Team list in a separate email to you shortly.

On behalf of the Arctic Refuge and Regional FWS staff,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska

907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Nicole Hayes](#)
Cc: "[Chad Ricklefs](#)"; "[Amy Lewis](#)"
Subject: Affected Environment background information for Arctic Refuge Coastal Plain
Date: Monday, June 25, 2018 5:49:00 PM
Attachments: [DRAFT for BLM Arctic Refuge Coastal Plain Seismic EA 062518.docx](#)
[Coastal Plain Leasing EIS Affected Environment transmittal.pdf](#)

Hi Nicole, Chad and Amy,

Attached please find a draft affected environment that was prepared for the Arctic National Wildlife Refuge Coastal Plain Seismic EA. The Service felt that this document would be useful to the BLM Interdisciplinary Team and EMPSi as you begin to develop the draft affected environment section for the Leasing EIS, although it does not contain all sections that are listed in the draft table of contents for the Leasing EIS.

Please contact me at 907-786-3532 or wendy_loya@fws.gov with any questions.

Sincerely,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [O'Dell, Patrick](#)
To: [Wendy Loya](#)
Subject: Re: Nanushuk/Torok discoveries push a rethink of North Slope oil potential
Date: Monday, June 25, 2018 5:57:28 PM
Attachments: [fs20173088.pdf](#)

Hi Wendy,

I learned a lot last week that will help me contribute more effectively with the challenges that oil and gas leasing will bring.

The rocks talked about in the article (Nanushuk and Torok) do not extend into Area 1002, making an analogy to similar layers that do pretty speculative...and adding it might require fracking is another layer of speculation. b5-DP

Maybe you've seen the USGS report that considers the plays that Mr. Decker is talking about...see attached. Kudos to the reporter letting a geologist ramble on...and then printing it!

Pat O'Dell
Petroleum Engineer
National Wildlife Refuge System
Division of Natural Resources
Office: 303-236-4365
Mobile: 303-204-9439
patrick_odell@fws.gov

On Mon, Jun 25, 2018 at 10:47 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Pat,

Again, thank you for coming up and participating in our regional workshop. It was great to meet you, and I hope we can work with you if/when we are evaluating the Reasonably foreseeable Development Scenarios.

Last paragraph hints at Arctic Refuge Coastal Plain....

Cheers,

Wendy

<http://www.petroleumnews.com/pntruncate/735490291.shtml>

Looking at it again

Nanushuk/Torok discoveries push a rethink of North

Slope oil potential

Alan Bailey

Petroleum News

New major oil discoveries in the Nanushuk and Torok formations on Alaska's North Slope are causing some significant rethinking of the oil potential of the region, as companies move towards development of these exciting finds and people assess further exploration opportunities. Petroleum geologist Paul Decker from Alaska's Division of Oil and Gas recently talked to Petroleum News about the nature and significance of the new finds. Decker sees the new Nanushuk/Torok oil play as opening the possibility of further significant oil discoveries to the west of the central North Slope. The play may also prove valuable as a geologic paradigm for oil prospects in the newly opened 1002 area of the Arctic National Wildlife Refuge, Decker thinks.

The three recent finds consist of the Pikka/Horseshoe trend in the Nanushuk in the Colville River delta region, the Willow discovery in the Nanushuk of the northeastern National Petroleum Reserve-Alaska and a major oil pool in the Torok under Smith Bay,

Oil Search in partnership with Repsol and Armstrong Energy is pursuing a development in Nanushuk sands in the Pikka unit - Armstrong also drilled the successful Horseshoe Nos. 1 and 1A wells in equivalent sands some 20 miles to the south of Pikka. During the last winter ConocoPhillips encountered oil in the Putu Nos. 2 and 2A wells, and in the Stony Hill No.1 well, all in that Pikka/Horseshoe trend. And ConocoPhillips is planning the development of its Willow discovery. Caelus Energy made its huge Smith Bay discovery in 2015 but thus far has not been able to further delineate the find or conduct any flow tests for the oil pool.

Brookian oil plays

The Nanushuk and Torok form part of what geologists refer to as the Brookian sequence, the youngest and shallowest of the petroleum bearing rock sequences in Arctic Alaska. The sediments that formed the rocks were deposited down the margin of an ancient marine basin that filled from west to east, with the basin margin itself migrating in that same direction, as the basin filled. The more sandy sediments deposited in shallow water at the top of the margin later formed the Nanushuk formation, while the muddier and more layered sediments on the sloping side and on the floor of the basin formed the Torok formation.

Oil in the Nanushuk and Torok is found in what are called stratigraphic traps, hydrocarbon traps created through the disposition and sequence with which the

sediments forming the rocks were laid down. The key to understanding the particular success of the Nanushuk play is the effect of cycles of sea level change and corresponding changes in sediment deposition, as the ancient basin margin migrated east, Decker explained. During periods of relatively low sea level, rivers dumped large quantities of sand out across to the basin shelf edge; it also appears that the sands were commonly reworked along the shelf edge to form elongated sand bodies, in some cases several miles long, such as is now observed in the Pikka/Horseshoe trend, Decker said.

Distinctive oil traps

Then, as sea level rose, submerging the sands, the tops of the sand bodies were scoured off and impervious muddy sediments were deposited on top, to form what would later become hydrocarbon seals. In cross-section, the package of sediments took on a sigmoidal shape, pointed at top and bottom, with the sand at the top pinching out between mud above and below, and with the pointed end of the sand body directed towards the west, towards the source of the sediment pouring into the basin. Oil later accumulated in upper parts of the sand bodies.

Oil in the Torok formation is found trapped in interlayered shales and sands referred to as turbidites. And, given the more muddy nature of these sediments, deposited relatively far into the ancient basin, reservoir quality in the Torok tends not to be as good as in the Nanushuk. In addition to the Smith Bay discovery, oil has been found in the Torok in the Nuna and Moraine pools that straddle the Oooguruk and Kuparuk River units and in the Cassin discovery made in 2013 by ConocoPhillips to the north of the Willow discovery.

The sands with their potential hydrocarbon contents, particularly in the Nanushuk, tend to show up in seismic cross sections as seismic amplitude anomalies, thin bands along which the recorded seismic signals are particularly strong. And an examination of a northwest to southeast cross-section of the northern part of NPR-A reveals a multiplicity of these anomalies, with their distinctive shapes, curving down towards the east, marking the migrating eastward margin of the ancient basin.

Given that much of the North Slope, apart from the area of industrial development, is underexplored, the multiplicity of amplitude anomalies with their distinctive shapes raises an intriguing question over just how many oil pools remain undiscovered in the region, Decker commented.

Publicly available data

And an examination of what is now known publicly about the new discoveries can also prove illuminating.

Maps of the structure and thickness of the sands in the Pikka/Horseshoe trend confirm that the sands would have been deposited just beyond the edge of the ancient marine shelf. Interestingly, a plot of oil pressure data from the various wells drilled in the trend demonstrates that fluid pressures have been communicating all through the trend across geologic time, Decker said. In other words, there appears to be significant reservoir continuity along the entire trend.

However, in detail, the rock quality does vary, so that there will likely be internal barriers to oil migration, with the hydraulic fracturing of horizontal wells being needed to encourage oil production, Decker added.

A plot of the water pressure gradient at Horseshoe juxtaposed on the oil pressure gradient for the trend suggests an oil/water contact at a depth of about 4,500 feet. That would imply the existence of an oil column more than 600 feet thick, Decker said.

The Willow discovery involves a large sand body that appears to have similar continuity to Pikka/Horseshoe across a considerable distance. Phillips Petroleum, later to become ConocoPhillips, originally made the discovery in 2002 from the drilling of the Hunter A well, a discovery that prompted the company to obtain some leases over the prospect in the 2002 NPR-A lease sale, Decker said. However, the company had other development interests at the time and did not return to the discovery until after Armstrong and Repsol had found and tested their Pikka discovery between 2013 and 2015. In 2016 ConocoPhillips confirmed the Willow trend through the drilling of the Tinmiaq No. 2 and Tinmiaq No. 6 wells, about 10 miles from the Hunter well.

Data from the two Tinmiaq wells, which have recently become public, appear to indicate lateral continuity across to the Hunter well in the sands that form the Willow reservoir. The data also indicate the presence of a younger and shallower sand body, referred to as the Falcon sand, that was not found in the Hunter well. It is not yet known whether the Falcon sand contains oil, Decker said.

Data for the Tinmiaq No. 2 well show that the reservoir interval contains fine grained sand and silt but that the reservoir quality is good, Decker said.

Light oil

And the oil in the Nanushuk/Torok discoveries is relatively light, a factor that should help when it comes to oil production. The API density of the oil may relate to the oil source rock. The Pikka/Horseshoe oil is thought to have originated from a source in the Shublik formation and has an API of 42 to 43. The Willow oil has an API of around 30 - there is speculation that this oil may have come from a source rock known as the HRZ, or possibly from a Jurassic source, Decker said.

Unlike shallow oil to the east, found in sands above the legacy North Slope oil fields, the Nanushuk/Torok oil has not been degraded by microbes to form viscous or heavy oil. Decker speculates that, being at a deeper level within the geologic section, the Nanushuk and Torok may have been protected by impervious shales from water infiltration that might have promoted the degradation.

Because the maximum depth of burial of the main North Slope oil source rocks tends to increase towards the south, geologists tend to view the southern region towards the Brooks Range foothills as gas prone rather than oil prone. However, given the potential for lateral migration of fluids within the rocks, it is difficult to say how far south oil may be found in the Nanushuk/Torok play, Decker suggested. And, paradoxically, there is oil in the Nanushuk in the Umiat oil field, in the presumed gas province more than 40 miles south of Horseshoe.

ANWR implications

With the west to east migration of the basin margin that formed the Nanushuk and Torok strata ending at around the location of the current Colville River, these rocks are not found to the east of this region. However, a similar geologic process took place to the east, with much younger rocks forming as the ancient marine basin continued to fill. That raises some interesting questions regarding oil prospects in the 1002 area of ANWR.

The prospects in the younger Brookian sediments, deposited on the ancient shelf margin in the 1002 area, make a major contribution to the overall estimates of recoverable oil in the area. But the Nanushuk-style reservoir model, with reservoir sands pinching out towards the direction of origin of the sediments, has not really been evaluated, Decker said. Could this type of prospect add to the area's oil potential?

Overall, with the new Nanushuk play proving a key to the opening of much more oil resource on the North Slope, a robust regional geologic framework is needed, to put everything into perspective and develop an effective exploration model, Decker said. The underexplored North Slope is still yielding exploration surprises, with the emergence of more assessed oil resources and the existence of many undrilled leads, he said.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [John Brewer](#)
Cc: [John Trawicki](#); [Paul Leonard](#)
Subject: GIS of Coastline of Arctic Refuge
Date: Monday, June 25, 2018 6:04:00 PM

Hi John B,

Last week we realized that while we have a shapefile of the 1002 area, we also need the coastline itself, basically exclusive of the lagoons and barrier islands in order to evaluate having an inland coastline buffer area. Is that something you have or can help us create? We could use that by Thursday of this week 😊

Thank you, let me know if I need to be more clear,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Roger Kaye](#); [Steve Berendzen](#); [Joanna Fox](#)
Subject: Possible Wilderness Stipulation
Date: Monday, June 25, 2018 6:34:00 PM

Hi 1002 Wilderness team,

I have added a row in the Visitor use and Wilderness Google doc that might be the template/start for a Wilderness protection stipulation. Have a look and imagine the best way we might use leasing stipulations to minimize impacts to the designated Wilderness 😊

https://docs.google.com/document/d/1JmK14p4Szlofpp8jq1bRRBux6rNYpnXhRQ_8fruJOU4/edit

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Amy Lewis](#)
To: [Wendy Loya](#); [Nicole Hayes](#)
Cc: [Chad Ricklefs](#)
Subject: [EXTERNAL] RE: Affected Environment background information for Arctic Refuge Coastal Plain
Date: Monday, June 25, 2018 6:49:36 PM

Thank you Wendy – we will pass this along to our resource specialists.

-A-

Amy Lewis
EMPSi Environmental Management and Planning Solutions, Inc.
121 SW Salmon St., Suite 1100
Portland, OR 97204
tel: 503-308-4667
www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, June 25, 2018 4:49 PM
To: Nicole Hayes <mnhayes@blm.gov>
Cc: Chad Ricklefs <chad.ricklefs@empsi.com>; Amy Lewis <amy.lewis@empsi.com>
Subject: Affected Environment background information for Arctic Refuge Coastal Plain

Hi Nicole, Chad and Amy,

Attached please find a draft affected environment that was prepared for the Arctic National Wildlife Refuge Coastal Plain Seismic EA. The Service felt that this document would be useful to the BLM Interdisciplinary Team and EMPSi as you begin to develop the draft affected environment section for the Leasing EIS, although it does not contain all sections that are listed in the draft table of contents for the Leasing EIS.

Please contact me at 907-786-3532 or wendy_loya@fws.gov with any questions.

Sincerely,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

0000008408

From: [Amy Lewis](#)
To: [Nicole Hayes](#); [Wendy Loya](#); [vaughan.molly@epa.gov](#); [kevin.fisher@north-slope.org](#); [faith.martineau@alaska.gov](#); [steve.masterman@alaska.gov](#); [sguyer@blm.gov](#); [kpeck@blm.gov](#); [paul.decker@alaska.gov](#); [rbrumbau@blm.gov](#); [jchmielowski@blm.gov](#); [King, Robert \(Bob\)](#); [Joseph Keeney](#); [jgalluzz@blm.gov](#); [rkemnitz@blm.gov](#); [mmccrum@blm.gov](#); [kdebenham@blm.gov](#); [tstclair@blm.gov](#); [mwhitman@blm.gov](#); [ctburns@blm.gov](#); [david.rogers@alaska.gov](#); [craig.perham@boem.gov](#); [dwixon@blm.gov](#); [tbickaus@blm.gov](#); [rgoodwin@blm.gov](#); [ejulianus@blm.gov](#); [sdallen@blm.gov](#); [slongan@blm.gov](#)
Cc: [Chad Ricklefs](#)
Subject: [EXTERNAL] Leasing EIS: updated contact list
Date: Tuesday, June 26, 2018 12:08:57 PM
Attachments: [Leasing EIS Contact List_062618.pdf](#)

Hello all –

I have attached an [updated contact list](#) for the Leasing EIS. Please let me know if you see any edits/corrections and I will make sure they are incorporated into the next version.

Thank you,
Amy

Amy Lewis
EMPSi Environmental Management and Planning Solutions, Inc.
121 SW Salmon St., Suite 1100
Portland, OR 97204
tel: 503-308-4667
www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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GSA Contract GS10F-0412S

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0000008410

From: [Trawicki, John](#)
To: [Heather Hanson](#)
Cc: [Drew Crane](#); [Wendy Loya](#)
Subject: Fwd: 1002 BMPs
Date: Tuesday, June 26, 2018 2:14:49 PM
Attachments: [Attachment 1 - CULVERT DESIGN GUIDELINES 9 MAY 2018.pdf](#)
[Attachment 3 -STREAM SIM VS TIER 1 DESIGN.pdf](#)
[INFORMATION-BRIEFING MEMO_FP_061218.docx](#)

Below is the BMP the BLM is currently using for the NPRA. Not sure I can get another acronym in that sentence. We are working on BMPs for the Coastal Plain and are interested in your opinion and recommendation. There is a very fast turn around for a draft, COB tomorrow, but an opportunity to make updates next week if necessary.

Thank you very much

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994), "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the authorized officer. To adhere to these best management practices, at least 3 years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream's ordinary high watermark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

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

From: Crane, Drew <drew_crane@fws.gov>
Date: Tue, Jun 26, 2018 at 11:45 AM
Subject: Fwd: 1002 BMPs
To: Wendy Loya <wendy_loya@fws.gov>, John Trawicki <john_trawicki@fws.gov>

Hey there,

Something to include in your discussions regarding 1002 BMPs. Let me know if you would like me to follow up with David or Heather on anything.

Thanks!

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

0000008411

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

From: **Wigglesworth, David** <david_wigglesworth@fws.gov>

Date: Tue, Jun 26, 2018 at 9:15 AM

Subject: 1002 BMPs

To: Drew Crane <drew_crane@fws.gov>, "Colligan, Mary" <mary_colligan@fws.gov>

Cc: Michael Daigneault <michael_daigneault@fws.gov>

Would like to recommend that our fish passage engineer review 1002 BMPs relating to culverts and stream crossings. Heather has developed best practice guidance and the plan is to brief Greg on this in July. Greg requested such a briefing after meeting with the HR crew last February.

I have attached the guidelines developed. In short, the presumption is that 1002 design standards should meet natural stream channel characteristics unless proven otherwise.

David

--

David Wigglesworth
Deputy ARD/Fish & Aquatic Conservation
US FWS Region 7
1011 East Tudor Rd
Anchorage, AK 99503
direct: 907-786-3925
cell: 907-301-3943
email: david_wigglesworth@fws.gov

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"

George Bernard Shaw

From: [Wendy Loya](#)
To: [John Trawicki](#); [Heather Hanson](#)
Cc: [Drew Crane](#); [David Wigglesworth](#); [Mary Colligan](#)
Subject: RE: 1002 BMPs
Date: Tuesday, June 26, 2018 2:26:00 PM

Hi Heather and David,

Thank you for putting this issue on your radar! We welcome your suggested edits or additional BMPs that might be necessary, John Trawicki and Randy Brown are the go-to guys for any questions.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>
Sent: Tuesday, June 26, 2018 12:14 PM
To: Heather Hanson <heather_hanson@fws.gov>
Cc: Drew Crane <drew_crane@fws.gov>; Wendy Loya <wendy_loya@fws.gov>
Subject: Fwd: 1002 BMPs

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David

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US FWS Region 7
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John Trawicki
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George Bernard Shaw

From: [Wendy Loya](#)
To: [Drew Crane](#); [John Trawicki](#)
Subject: RE: 1002 BMPs
Date: Tuesday, June 26, 2018 2:28:00 PM

Drew,

Would it be a good idea to have Aaron Martin review the Invasive Species BMP, in vegetation section but intended to capture biota in the revision?

Thanks!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Crane, Drew <drew_crane@fws.gov>
Sent: Tuesday, June 26, 2018 11:46 AM
To: Wendy Loya <wendy_loya@fws.gov>; John Trawicki <john_trawicki@fws.gov>
Subject: Fwd: 1002 BMPs

Hey there,

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Thanks!

Drew Crane
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Date: Tue, Jun 26, 2018 at 9:15 AM
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To: Drew Crane <drew_crane@fws.gov>, "Colligan, Mary" <mary_colligan@fws.gov>
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US FWS Region 7
1011 East Tudor Rd
Anchorage, AK 99503
direct: 907-786-3925
cell: 907-301-3943
email: david_wigglesworth@fws.gov

From: [Wendy Loya](#)
To: [David Wigglesworth](#)
Cc: [John Trawicki](#); [Heather Hanson](#); [Drew Crane](#); [Mary Colligan](#); [Michael Daigneault](#); [Neil Stichert](#)
Subject: RE: 1002 BMPs
Date: Tuesday, June 26, 2018 2:56:00 PM

Hi David et al,

We are working from the NPRA Best Management Practices, but welcome additional BMPs in a similar format if you feel it is important to suggest additional performance standards. If you wanted to understand how they are implemented, you could look to the GMT 1 or GMT2 EISes, where they are put into action on an NPRA project. For BMPs, we could receive any suggestions up through next Tuesday COB, needing time to reconcile and finalize our suggestions by the end of the week (and hopefully taking the holiday off). We will gather Matthew Whitman at BLM's expertise on how well the NPRA BMPs work during the upcoming BLM alternatives workshop.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Wigglesworth, David <david_wigglesworth@fws.gov>
Sent: Tuesday, June 26, 2018 12:37 PM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: John Trawicki <john_trawicki@fws.gov>; Heather Hanson <heather_hanson@fws.gov>; Drew Crane <drew_crane@fws.gov>; Mary Colligan <mary_colligan@fws.gov>; Michael Daigneault <michael_daigneault@fws.gov>; Neil Stichert <Neil_Stichert@fws.gov>
Subject: Re: 1002 BMPs

Also, I saw the NPRA standards being used as our starting point, but what has been drafted to date by us concerning fish passage, culverts etc. We'd need to see these as well.

On Tue, Jun 26, 2018 at 12:32 PM, Wigglesworth, David <david_wigglesworth@fws.gov> wrote:

Hi Wendy, thanks for looping back to us on this issue. I have also included Mike Daigneault in this discussion and Neil. I know things are moving quickly, but it would be most helpful to have a deadline for comments.

David

On Tue, Jun 26, 2018 at 12:26 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Heather and David,

Thank you for putting this issue on your radar! We welcome your suggested edits or additional BMPs that might be necessary, John Trawicki and Randy Brown are the go-to guys for any questions.

Thank you,
Wendy

Dr. Wendy M. Loya,
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907.786.3532 (office)
907.277.2942 (mobile)

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Sent: Tuesday, June 26, 2018 12:14 PM
To: Heather Hanson <heather_hanson@fws.gov>
Cc: Drew Crane <drew_crane@fws.gov>; Wendy Loya <wendy_loya@fws.gov>
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[1011 E. Tudor Road](#)
[Anchorage, AK 99503](#)
907-786-3323

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Date: Tue, Jun 26, 2018 at 9:15 AM
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To: Drew Crane <drew_crane@fws.gov>, "Colligan, Mary" <mary_colligan@fws.gov>
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David

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direct: 907-786-3925
cell: 907-301-3943
email: david_wigglesworth@fws.gov

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John Trawicki
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email: david_wigglesworth@fws.gov

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: RE: 1002 BMPs
Date: Tuesday, June 26, 2018 3:10:00 PM

Ok, sent to Melissa

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Crane, Drew <drew_crane@fws.gov>
Sent: Tuesday, June 26, 2018 1:03 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: 1002 BMPs

It depends. Aaron is more aquatic invasive oriented, not so much terrestiral. Melissa Burns said she doesn't mind reviewing the BMPs for invasives if you would like to send to her.

Thanks

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

On Tue, Jun 26, 2018 at 12:28 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Drew,

Would it be a good idea to have Aaron Martin review the Invasive Species BMP, in vegetation section but intended to capture biota in the revision?

Thanks!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
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From: Crane, Drew <drew_crane@fws.gov>
Sent: Tuesday, June 26, 2018 11:46 AM
To: Wendy Loya <wendy_loya@fws.gov>; John Trawicki <john_trawicki@fws.gov>
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[1011 East Tudor Rd](#)
[Anchorage, AK 99503](#)
direct: 907-786-3925
cell: 907-301-3943
email: david_wigglesworth@fws.gov

From: [Wendy Loya](#)
To: [Randy Brown](#)
Cc: [Eric Taylor](#)
Subject: RE: Stips and BMPs - Invitation to collaborate
Date: Tuesday, June 26, 2018 3:19:00 PM

I have shared the full folder with Eric. I had meant to originally, but it does appear I have overlooked a few people!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Brown, Randy <randy_j_brown@fws.gov>
Sent: Tuesday, June 26, 2018 1:17 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Fwd: Stips and BMPs - Invitation to collaborate

Hi Wendy,
I'm trying to forward your invitation to Eric Taylor to see if he would be willing to contribute to the BMP and Stips for birds in coastal habitats, as was suggested at our meeting last week, but the invitation to view or contribute to the document is restricted in some way. Would it be possible to allow access to Eric? If you are able to do that, please forward this e-mail to him, or let me know and I'll send it to him.

Thanks,
Randy

Hi Eric,
I am working with Wendy and others on USFWS recommendations to BLM for best practices and stipulations appropriate for the 1002 Area. We're approaching it by modeling our efforts at least loosely on those developed for the NPR-A. I am working with John Trawicki on sections related to rivers, springs, and fish, and with Ryan Wilson on the coast line, lagoons, and barrier islands. Ryan is dealing with issues related to polar bears, I'm dealing with fish. We wanted to get somebody that could address the coastal habitats from the avian perspective and somebody recommended we contact you. Would you be willing to provide some input on BMP and Stips for the coastal area relative to birds? There is a file in the GoogleDocs link Wendy shared below specifically dedicated to birds, although my request is specifically related to birds in coastal habitats including river deltas, lagoons, and barrier islands.

Our contributions need to be finished by tomorrow sometime. When you have a moment, let me know if you are able to contribute to this effort in any way.

Thanks,
Randy

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

From: **Wendy Loya (via Google Drive)** <drive-shares-noreply@google.com>

Date: Thu, Jun 21, 2018 at 4:19 PM

Subject: Stips and BMPs - Invitation to collaborate

To: randy_j_brown@fws.gov

Cc: stephen_arthur@fws.gov, christopher_latty@fws.gov, hollis_twitchell@fws.gov,
angela_matz@fws.gov, edward_decleva@fws.gov, john_trawicki@fws.gov,
jennifer_reed@fws.gov, joanna_fox@fws.gov, patrick_odell@fws.gov,
steve_berendzen@fws.gov, catherine_collins@fws.gov, tim_allen@fws.gov,
roger_kaye@fws.gov, ryan_r_wilson@fws.gov, christopher_putnam@fws.gov,
ted_swem@fws.gov, tracy_fischbach@fws.gov, drew_crane@fws.gov

wendy_loya@fws.gov has invited you to **contribute** to the following shared folder:



[Stips and BMPs](#)



Edits due no later than: Wednesday 6/27 4pm

Google Folder with Stipulations and BMPs from NPRA Table 2.3 for FWS Staff Experts to edit for applicability for 1002 area. Please only edit those documents for which you have knowledge and expertise in, all edits should be tracked, but formatting changes can be accepted to keep document as readable as possible.

Thank you, let Wendy know if you have any questions.

[Open](#)

Google Drive: Have all your files within reach from any device.

Google LLC, [1600 Amphitheatre Parkway, Mountain View, CA 94043, USA](#)



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Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

0000008425

From: [Wendy Loya](#)
To: [Roger Kaye](#); [Steve Berendzen](#); [Joanna Fox](#)
Subject: RE: [EXTERNAL] Coastal Plain EIS - Special Designations Affected Environment
Date: Tuesday, June 26, 2018 5:29:00 PM

Roger,

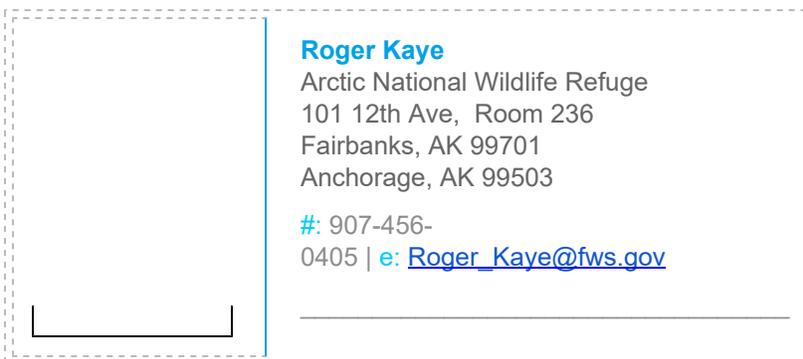
Can you please forward the three of us your response?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Kaye, Roger <roger_kaye@fws.gov>
Sent: Tuesday, June 26, 2018 3:09 PM
To: Wendy Loya <wendy_loya@fws.gov>; Steve Berendzen <steve_berendzen@fws.gov>; Joanna Fox <joanna_fox@fws.gov>
Subject: Fwd: [EXTERNAL] Coastal Plain EIS - Special Designations Affected Environment

fyi, I received & responded to this. Cottle will send me drafts for comment on the wilderness



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

From: Sean Cottle <sean.cottle@empfi.com>
Date: Tue, Jun 26, 2018 at 8:04 AM
Subject: [EXTERNAL] Coastal Plain EIS - Special Designations Affected Environment

To: "roger_kaye@fws.gov" <roger_kaye@fws.gov>

Hi Roger,

I am on the EMPSi team helping Chad Ricklefs and Amy Lewis by drafting the special designations section for the affected environment. Will you be available sometime this week to discuss our approach for this section or would you prefer I draft a template with headings of topics I intend to cover and you could reply with some comment bubbles?

My main question that I will need help with as we begin to draft this section is how we are going to address the Coastal Plain WSA in this document? The 2015 USFWS CCP refers to the entire 1002 area as the "Coastal Plain WSA" A summary of this is here:

<https://www.fws.gov/refuge/arctic/ccpwrsumfindings.html>. Considering congress passed the *Tax Cuts and Jobs Act of 2017* should we assume this means this area has been released for multiple use and should NOT be referred to as a "WSA" anymore (or would further congressional action be necessary to make that assumption?). One approach might be for us to analyze this area as "Wilderness Characteristics" and we could describe those characteristics with similar indicators as BLM lands with wilderness characteristics (Size, Naturalness, Outstanding Opportunities for Solitude or a Primitive and Unconfined Type of Recreation, Supplemental Values).

Sean Cottle

EMPSi Environmental Management and Planning Solutions, Inc.

[4741 Caughlin Pkwy Suite #4](#)

Reno, NV 89519

tel: 775-323-1433 fax: 866-698-4836

www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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A buquerque Denver Portland Reno San Francisco Santa Fe Washington, DC

From: [Wendy Loya](#)
To: [Colligan, Mary](#)
Subject: Re: Invitation: 1002 Alternatives Strike team meeting @ Thu Jun 28, 2018 1pm - 4pm (AKDT)
(mary_colligan@fws.gov)
Date: Wednesday, June 27, 2018 7:56:36 AM

Hi Mary,

I thought your calendar looked full. Drew is on leave tomorrow or would definitely have been included. Would welcome Christopher or Ryan, or anyone that would be up to speed on what we are doing. The goal is to go through stip and BMP table revisions suggested by staff, refining the map based on those revised stips and work towards a coherent narrative for sharing with 1002 RDT team Friday.

Thank you,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jun 26, 2018, at 19:11, Colligan, Mary <mary_colligan@fws.gov> wrote:

Wendy - I am at an all day meeting Thursday so cannot attend this meeting. Do you want me to ask Drew if he can participate?

Sorry - just too many things going on right now!

On Tue, Jun 26, 2018 at 4:07 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

1002 Alternatives Strike team meeting

[more details »](#)

Strike team to go through all the work by our experts to revise Stipulations and BMPs, and work towards our suggeted alternatives that will be presented to the RDT on Friday 29th 9-11am.

When Thu Jun 28, 2018 1pm – 4pm Alaska Time

Where FWS-FW7 NWRS Conference Room/Regional Office ([map](#))

Calendar mary_colligan@fws.gov

Who

- wendy_loya@fws.gov - organizer
- mary_colligan@fws.gov
- john_trawicki@fws.gov
- steve_berendzen@fws.gov
- paul_leonard@fws.gov
- todd_hopkins@fws.gov

Going? **Yes** - **Maybe** - **No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account mary_colligan@fws.gov because you are subscribed for invitations on calendar mary_colligan@fws.gov.

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](#).

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Matthew Sturm](#)
To: [Paul Leonard](#); [Wendy Loya](#)
Cc: [Chris Larsen](#); [Charles Parr](#); [Frank Urban](#); [Robert McCoy](#)
Subject: [EXTERNAL] SfM snow maps
Date: Wednesday, June 27, 2018 1:02:10 PM
Attachments: [LoyalLeonardLetterJul727_2018.pdf](#)
[Camden3panel.jpg](#)

Dear Wendy and Paul:

Please find attached the preliminary results from snow mapping in the 1002 area. If you have any questions, please call me. I would recommend opening the attached jpeg image in a browser and magnifying the image to get a true sense of the snow cover heterogeneity and structure, which is lost in the smaller figure embedded in the document.

Matthew

--

Dr. Matthew Sturm
Geophysical Institute
University of Alaska-Fairbanks
907-474-5257
msturm1@alaska.edu

From: [Sarah LaMarr](#)
To: [Wendy Loya](#)
Cc: [Nichelle Jones](#)
Subject: Re: File request for Seismic info
Date: Wednesday, June 27, 2018 1:05:29 PM
Attachments: [SAE Responses to BLM Questions-Final-Clean2.docx](#)

Sarah La Marr
Bureau of Land Management
Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

On Wed, Jun 27, 2018 at 10:34 AM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Sarah,

I am hoping you can send the SAE files, particularly the powerpoint, today. I will provide those to the Arctic Refuge Manger, deputy and Oil and gas program coordinator but they will not be distributed to all staff.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: ["Matthew Sturm"](#); [Paul Leonard](#)
Cc: ["Chris Larsen"](#); ["Charles Parr"](#); [Frank Urban](#); ["Robert McCoy"](#)
Subject: RE: [EXTERNAL] SfM snow maps
Date: Wednesday, June 27, 2018 1:53:00 PM

Thank you Matthew!

We will be in touch in the near future after we have had a chance to look at this, but extremely grateful to have this at this time.

Sincerely,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

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

From: Matthew Sturm <msturm1@alaska.edu>
Sent: Wednesday, June 27, 2018 11:01 AM
To: Paul Leonard <paul_leonard@fws.gov>; Wendy Loya <wendy_loya@fws.gov>
Cc: Chris Larsen <cflarsen@alaska.edu>; Charles Parr <cparr4@alaska.edu>; Frank Urban <furban@usgs.gov>; Robert McCoy <rpmccoy@alaska.edu>
Subject: [EXTERNAL] SfM snow maps

Dear Wendy and Paul:

Please find attached the preliminary results from snow mapping in the 1002 area. If you have any questions, please call me. I would recommend opening the attached jpeg image in a browser and magnifying the image to get a true sense of the snow cover heterogeneity and structure, which is lost in the smaller figure embedded in the document.

Matthew

--

Dr. Matthew Sturm
Geophysical Institute
University of Alaska-Fairbanks
907-474-5257
msturm1@alaska.edu

From: [Joanna Fox](#)
To: [Wendy Loya](#)
Cc: [Steve Berendzen](#)
Subject: Draft Alternatives document
Date: Wednesday, June 27, 2018 3:01:19 PM
Attachments: [Executive Summary FWS Recs Alternatives Development 27June2018.docx](#)

Wendy,

Here is the draft document as it currently stands. We are still missing text specific to polar bears, and the lagoon section needs a little more work.

Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

Follow us on Facebook!

www.facebook.com/arcticnationalwildliferefuge

"Do what you can, with what you have, where you are." -- Theodore Roosevelt

From: [Leonard, Paul](#)
To: [Wendy Loya](#)
Cc: [John Brewer](#); [John Trawicki](#)
Subject: Re: GIS of Coastline of Arctic Refuge
Date: Wednesday, June 27, 2018 6:13:47 PM
Attachments: [Capture.PNG](#)

I went ahead and created a quick and dirty layer to help with this.

Cheers,
Paul

On Mon, Jun 25, 2018 at 4:04 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi John B,

Last week we realized that while we have a shapefile of the 1002 area, we also need the coastline itself, basically exclusive of the lagoons and barrier islands in order to evaluate having an inland coastline buffer area. Is that something you have or can help us create? We could use that by Thursday of this week ☺

Thank you, let me know if I need to be more clear,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Paul Leonard, PhD
Science Coordinator
[Arctic LCC](#)

0000008434

101 12th Ave. Room 216
Fairbanks, AK 99701
(907) 456-0445

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Re: FW: Affected Environment background information for Arctic Refuge Coastal Plain
Date: Thursday, June 28, 2018 4:56:25 PM

Thank you! I haven't even gotten to it yet.
Nicole

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

On Thu, Jun 28, 2018 at 2:52 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Nicole,

This appears to have gotten lost in your email. Can you please share with BLM staff? Casey Burns in particular is looking for it today.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, June 25, 2018 3:49 PM
To: Nicole Hayes <mnhayes@blm.gov>
Cc: 'Chad Ricklefs' <chad.ricklefs@empfi.com>; 'Amy Lewis' <amy.lewis@empfi.com>
Subject: Affected Environment background information for Arctic Refuge Coastal Plain

Hi Nicole, Chad and Amy,

Attached please find a draft affected environment that was prepared for the Arctic National Wildlife Refuge Coastal Plain Seismic EA. The Service felt that this document would be useful to the BLM Interdisciplinary Team and EMPSi as you begin to develop the draft affected environment section for the Leasing EIS, although it does not contain all sections that are listed in the draft table of contents for the Leasing EIS.

Please contact me at 907-786-3532 or wendy_loya@fws.gov with any questions.

Sincerely,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

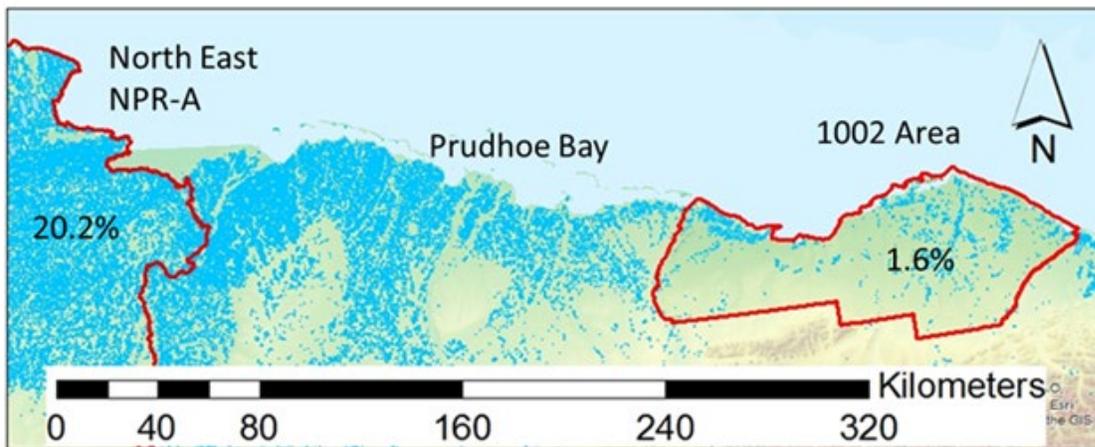
Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Trawicki, John](#)
To: [Wendy Loya](#); [Steve Berendzen](#)
Subject: Re: edits
Date: Thursday, June 28, 2018 7:20:24 PM
Attachments: [image.png](#)

There are significant physical differences between the NPR-A and the Arctic Refuge's coastal plain. The differences in topography, soils, vegetation and hydrology means the fish and wildlife habitats and populations along the coastal plain are different. As a result of the differences between these two areas some BMP's developed for the NPR-A will need to be modified to effectively protect to refuge resources in a manner similar to the NPR-A. Some of the differences include; the fine grained soils of the coastal plain are more susceptible to erosion and thermokarst when damaged. The variation in soils in conjunction with the steeper topography (6-8 times in places) result in different vegetation communities, and differences in surface water hydrology. The steeper terrain results in differences in the distribution of snow and likely preferred polar dening locations. Over 20% of the surface area of the NPR-A is water, while less that 2% of the coastal plain is classified as water. These differences mean that BMP's developed for current oil and gas activities in the NPR-A may not directly apply to future efforts on the coastal plain within the Arctic Refuge will necessitates careful infrastructure planning.



On Thu, Jun 28, 2018 at 3:57 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

There are significant differences between the NPR-A and the Arctic Refuge's coastal plain. The Arctic Refuge coastal plain is narrower and six to eight times steeper than areas currently under development on the north slope. The differences in topography, soils, vegetation and hydrology contribute to erosional risks associated with surface disturbances and necessitates careful infrastructure planning. These differences may mean that BMP's developed for current oil and gas activities in the NPR-A may not directly apply to future efforts on the coastal plain within the Arctic Refuge. Additional BMPs are being recommended to provide protection for these areas that are different than those in the NPR-A.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Wendy Loya](#)
To: [Bud Cribley \(bud_cribley@fws.gov\)](#); [Joanna Fox](#); [Joshua Rose](#)
Subject: meeting
Date: Friday, June 29, 2018 10:09:00 AM
Attachments: [Arctic Refuge DRAFT ADDITIONAL PROTECTIONS THAT APPLY IN SELECT BIOLOGICALLY SENSITIVE AREAS.docx](#)
[DRAFT Executive Summary FWS Recs Alternatives Development 29June2018_R2.docx](#)

Docs for today's meeting that we won't share on screen.. live GIS maps should be via webex

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Fwd: [EXTERNAL] RE: Coastal Plain EIS - Cultural Resource Coordination
Date: Friday, June 29, 2018 10:50:55 AM

fysa - in case someone else is helping out.

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

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

From: Paul Lawrence <Paul.Lawrence@srbak.com>

Date: Fri, Jun 29, 2018 at 8:46 AM

Subject: [EXTERNAL] RE: Coastal Plain EIS - Cultural Resource Coordination

To: "edward_decleva@fws.gov" <edward_decleva@fws.gov>

Cc: Stephen Braund <Stephen.Braund@srbak.com>, Jake Anders <Jake.Anders@srbak.com>,

"Keeney, Joseph" <jkeeney@blm.gov>, Bob King <r2king@blm.gov>, Kevin Doyle

<kevin.doyle@empssi.com>, Chad Ricklefs <chad.ricklefs@empssi.com>, Amy Lewis

<amy.lewis@empssi.com>, "Hayes, Miriam (Nicole)" <mnhayes@blm.gov>

Hi Ed,

We had received a bounce back email from the one we sent below saying you were out of the office till the 28th and wanted to follow-up with you one more time.

We do want to acknowledge that we heard the input that you gave at the agency kick-off meeting on May 3, 2018 regarding the cultural resource topic and that information is already being addressed in our sections. If you would like to provide additional input on the section, please let us know.

Thanks,

Paul

From: Paul Lawrence

0000008442

Sent: Friday, June 22, 2018 10:50 AM

To: 'edward_decleva@fws.gov' <edward_decleva@fws.gov>

Cc: 'srb@srbak.com' <srb@srbak.com>; Jake Anders <Jake.Anders@srbak.com>; 'Keeney, Joseph' <jkeeney@blm.gov>; 'Bob King' <r2king@blm.gov>; Kevin Doyle <kevin.doyle@empssi.com>; Chad Ricklefs <chad.ricklefs@empssi.com>; Amy Lewis <amy.lewis@empssi.com>; 'Hayes, Miriam (Nicole)' <mnhayes@blm.gov>

Subject: Coastal Plain EIS - Cultural Resource Coordination

Hi Ed,

This is Paul Lawrence with Stephen R. Braund & Associates (SRB&A). We are working on the cultural resource section of BLM's Coastal Plain EIS. Our first task is to develop the AE, and prior to doing that, we are having a kick-off teleconference with Joe Keeney at BLM to get his input and guidance on the cultural resource approach. Bob King, BLM's State Archaeologist, provided his input to us in an email already.

Our goal is to incorporate BLM's and USFWS's guidance and input on the overall cultural resource approach to ensure a more efficient writing process and minimize the review and response to comment efforts following the development of the AE and EC.

We have a teleconference scheduled with Joe on Monday (6/25) at 1pm to get his input before he leaves for the field. Are you able to attend this teleconference and provide input from the USFWS perspective? If not, we can plan a follow up call with you separately next week to get your input. Just let us know what works for you.

Thanks,

Paul Lawrence

Senior Research Associate
Stephen R. Braund & Associates
P.O. Box 10-1480
Anchorage, Alaska 99510-1480
907-276-8222 (office)
907-786-8409 (direct)
paul.lawrence@srbak.com

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

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: Arctic NWR BMP and Stips (water edits) 062918.docx
Date: Friday, June 29, 2018 3:53:00 PM
Attachments: [Arctic NWR BMP and Stips \(water edits\) 062918.docx](#)

Thank you for transferring the google doc Water/fish BMPs to the attached word doc. If that is not the best pathway forward, let me know and we can adapt!

From: [Trawicki, John](#)
To: [Wendy Loya](#)
Subject: Re: Arctic NWR BMP and Stips (water edits) 062918.docx
Date: Friday, June 29, 2018 5:27:33 PM
Attachments: [Arctic NWR BMP and Stips \(water edits\) 062918 jt.docx](#)

just BMPs that were identified for water and fish are updated in track changes. There are a few places where references to a K-stipulation will be required.

On Fri, Jun 29, 2018 at 1:53 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Thank you for transferring the google doc Water/fish BMPs to the attached word doc. If that is not the best pathway forward, let me know and we can adapt!

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Heather Hanson](#)
To: [Wendy Loya](#)
Cc: randy_j_brown@fws.gov; [David Wigglesworth](#); [John Trawick](#); [Drew Crane](#); [Mary Colligan](#); [Michael Daigneault](#); [Neil Stichert](#)
Subject: Re: 1002 BMPs
Date: Friday, June 29, 2018 6:13:10 PM
Attachments: [Culvert Design Guidelines & Procedures 29 June 2018.pdf](#)

Hi Wendy and John,

I had a spare moment and added some arctic design specific recommendations to the attached guidance document. Please let me know if you have any questions.

Have a great weekend!

Heather Hanson, P.E.
Fish Passage Engineer
Office Tel: 907-271-1630
Cell: 907-891-3765

U.S. Fish and Wildlife Service
4700 BLM Road
Anchorage, AK 99507-2546

On Wed, Jun 27, 2018 at 8:31 AM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Heather,

Thank you very much for this info on fish passages! We can take your suggestions to the table as recommended BMPs for the Arctic Refuge. Copying Randy Brown also, who is our team lead for fish, and we will get back to you if we have any questions or concerns.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Hanson, Heather <heather_hanson@fws.gov>

Sent: Wednesday, June 27, 2018 8:27 AM

To: Wendy Loya <wendy_loya@fws.gov>

Cc: David Wigglesworth <david_wigglesworth@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Drew Crane <drew_crane@fws.gov>; Mary Colligan <mary_colligan@fws.gov>; Michael Daigneault <michael_daigneault@fws.gov>; Neil Stichert <neil_stichert@fws.gov>

Subject: Re: 1002 BMPs

Hi Wendy.

Thank you for the opportunity to comment on the BMP's for the 1002 area.

The BMP's for fish passage outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994) and "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991) are based on the hydraulic design method. The hydraulic design method is an outdated method that attempts to match fish swimming ability with the predicted velocity and depth at a road stream crossing to ensure fish passage. This method has not proven very successful as it relies on accurate predictions of the hydrological flow regime. However, the confidence interval on hydrological flow estimates can be plus or minus 100% or more. Using this method to design fish passage structures may result in the installation of new barriers to fish passage.

The USFWS recommends the stream simulation approach for the design of culverts at road stream crossings. The stream simulation approach was developed by the US Forest Service and is outlined in this document "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings" U.S. Forest Service. 2008. In addition, the USFWS has developed the attached guidelines for design of stream simulation culverts in Alaska. The attached guidelines focus on the design features of culverts at road stream crossings that are important to ensure fish passage. In addition to the BMP's outlined in these documents for stream simulation design, the design engineer should ensure that crossing structures are designed for aufeis, permafrost, sheet flow, additional freeboard during breakup, and other unique conditions of the arctic environment. To allow for sheet flow and flood plain dynamics and to ensure fish passage and passage of other organisms, bridges are preferred over culverts if technically feasible.

Heather Hanson, P.E.

Fish Passage Engineer

0000008448

Office Tel: 907-271-1630

Cell: 907-891-3765

U.S. Fish and Wildlife Service

4700 BLM Road

Anchorage, AK 99507-2546

On Tue, Jun 26, 2018 at 12:56 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi David et al,

We are working from the NPRA Best Management Practices, but welcome additional BMPs in a similar format if you feel it is important to suggest additional performance standards. If you wanted to understand how they are implemented, you could look to the GMT 1 or GMT2 EISes, where they are put into action on an NPRA project. For BMPs, we could receive any suggestions up through next Tuesday COB, needing time to reconcile and finalize our suggestions by the end of the week (and hopefully taking the holiday off). We will gather Matthew Whitman at BLM's expertise on how well the NPRA BMPs work during the upcoming BLM alternatives workshop.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Wigglesworth, David <david_wigglesworth@fws.gov>

Sent: Tuesday, June 26, 2018 12:37 PM

To: Wendy Loya <wendy_loya@fws.gov>

Cc: John Trawicki <john_trawicki@fws.gov>; Heather Hanson <heather_hanson@fws.gov>; Drew Crane <drew_crane@fws.gov>; Mary Colligan <mary_colligan@fws.gov>; Michael Daigneault <michael_daigneault@fws.gov>; Neil Stichert <Neil_Stichert@fws.gov>

Subject: Re: 1002 BMPs

Also, I saw the NPRA standards being used as our starting point, but what has been drafted to date by us concerning fish passage, culverts etc. We'd need to see these as well.

On Tue, Jun 26, 2018 at 12:32 PM, Wigglesworth, David <david_wigglesworth@fws.gov> wrote:

Hi Wendy, thanks for looping back to us on this issue. I have also included Mike Daigneault in this discussion and Neil. I know things are moving quickly, but it would be most helpful to have a deadline for comments.

David

On Tue, Jun 26, 2018 at 12:26 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Heather and David,

Thank you for putting this issue on your radar! We welcome your suggested edits or additional BMPs that might be necessary, John Trawicki and Randy Brown are the go-to guys for any questions.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>

Sent: Tuesday, June 26, 2018 12:14 PM

To: Heather Hanson <heather_hanson@fws.gov>

Cc: Drew Crane <drew_crane@fws.gov>; Wendy Loya <wendy_loya@fws.gov>

Subject: Fwd: 1002 BMPs

Below is the BMP the BLM is currently using for the NPRA. Not sure I can get another acronym in that sentence. We are working on BMPs for the Coastal Plain and are interested in your opinion and recommendation. There is a very fast turn around for a draft, COB tomorrow, but an opportunity to make updates next week if necessary.

Thank you very much

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994), "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the authorized officer. To adhere to these best management practices, at least 3 years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream's ordinary high watermark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

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

From: Crane, Drew <drew_crane@fws.gov>

Date: Tue, Jun 26, 2018 at 11:45 AM

Subject: Fwd: 1002 BMPs

To: Wendy Loya <wendy_loya@fws.gov>, John Trawicki <john_trawicki@fws.gov>

Hey there,

Something to include in your discussions regarding 1002 BMPs. Let me know if you would like me to follow up with David or Heather on anything.

Thanks!

Drew Crane

Regional Endangered Species Coordinator

Alaska Region

U.S. Fish and Wildlife Service

[1011 E. Tudor Road](#)

[Anchorage, AK 99503](#)

907-786-3323

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

From: **Wigglesworth, David** <david_wigglesworth@fws.gov>

Date: Tue, Jun 26, 2018 at 9:15 AM

Subject: 1002 BMPs

To: Drew Crane <drew_crane@fws.gov>, "Colligan, Mary"

<mary_colligan@fws.gov>

Cc: Michael Daigneault <michael_daigneault@fws.gov>

Would like to recommend that our fish passage engineer review 1002 BMPs relating to culverts and stream crossings. Heather has developed best practice guidance and the plan is to brief Greg on this in July. Greg requested such a briefing after meeting with the HR crew last February.

I have attached the guidelines developed. In short, the presumption is that 1002 design standards should meet natural stream channel characteristics unless proven otherwise.

David

--

David Wigglesworth

Deputy ARD/Fish & Aquatic Conservation

US FWS Region 7

[1011 East Tudor Rd](#)

[Anchorage, AK 99503](#)

direct: 907-786-3925

cell: 907-301-3943

email: david_wigglesworth@fws.gov

--

John Trawicki

Water Resources Branch Chief

National Wildlife Refuge System, Alaska

U.S. Fish and Wildlife Service

[1011 E. Tudor Road](#)

[Anchorage, AK 99503](#)

Work: (907) 786-3474

Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"

George Bernard Shaw

--

David Wigglesworth

Deputy ARD/Fish & Aquatic Conservation

US FWS Region 7

[1011 East Tudor Rd](#)

[Anchorage, AK 99503](#)

direct: 907-786-3925

cell: 907-301-3943

email: david_wigglesworth@fws.gov

--

David Wigglesworth

Deputy ARD/Fish & Aquatic Conservation

US FWS Region 7

[1011 East Tudor Rd](#)

[Anchorage, AK 99503](#)

direct: 907-786-3925

cell: 907-301-3943

email: david_wigglesworth@fws.gov

From: [Wendy Loya](#)
To: [Todd Hopkins](#); [Tracy Fischbach](#); [Stephanie Brady](#)
Cc: [John Trawicki](#)
Subject: FW: Timeline for possible 1002 Leasing EIS actions requiring FWS review
Date: Monday, July 2, 2018 5:33:00 PM
Importance: High

Since John T is out of town, forwarding this for him...

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, July 2, 2018 3:26 PM
To: Steve Berendzen <steve_berendzen@fws.gov>; Joanna Fox <joanna_fox@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Drew Crane <drew_crane@fws.gov>
Cc: Mary Colligan <mary_colligan@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Eric Taylor <eric_taylor@fws.gov>; Sara Boario <sara_boario@fws.gov>; Greg Siekaniec <greg_siekaniec@fws.gov>; Karen Clark <karen_clark@fws.gov>; Bud Cribley (bud_cribley@fws.gov) <bud_cribley@fws.gov>
Subject: Timeline for possible 1002 Leasing EIS actions requiring FWS review
Importance: High

Dear Coastal Plain Leasing EIS POCs and RDT:

I am not entirely sure if FWS will be asked to review draft documents at all of the following stages, and will continue to inquire with BLM and provide updates. In the very complicated schedule Nicole shared with us that was developed for the contractor, the following are listed as review periods for the BLM State Office, which she told me is the same time as for Cooperating Agencies for the sections we will be included in reviewing (I will ask that we be included in all reviews):

Review of Draft Alternatives July 13-16th

Review of Draft Reasonably foreseeable development scenarios July 23-25th

Review of Draft EIS Aug 9-22nd **Try to have all staff on IDT team available Aug 9-16th to review sections in their area of expertise (even if just 2-3 days)

Review of Draft and Final Announcements and Materials for Public Comment version of Draft EIS Sept 27-Oct 15th

(Public Review of Draft EIS Oct 17-Dec 1)

Venetie Meeting and Section 810 Hearing (Task 4a) 1 day Tue 10/30/18

Arctic Village Meeting and Section 810 Hearing (Task 4a) 1 day Wed 10/31/18

Kaktovik Meeting and Section 810 Hearing (Task 4a) 1 day Thu 11/1/18

Anchorage Meeting 1 day Tue 11/6/18

Fairbanks Meeting 1 day Wed 11/7/18

Utqiagvik Meeting and Section 810 Hearing (Task 4a) 1 day Thu 11/8/18

Washington, DC 1 day Wed 11/14/18

Review of Final EIS Jan 17-30th

Review of Draft ROD May 2-15th

I hope this is helpful, and after the Alternatives workshop July 9-12th, we will make our review plan for the Draft EIS period so we can get from 'ologists to RDT in 2 weeks.

Thanks,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Whitman, Matt](#)
To: [Wendy Loya](#)
Cc: [Nicole Hayes](#); [Nichelle \(Shelly\) Jones](#); [Drew Crane](#)
Subject: Re: Revised Fish Passage BMP for Arctic Refuge Coastal Plain
Date: Monday, July 2, 2018 6:02:33 PM

Thanks Wendy. I've scanned through this information and will study it with more detail in preparation to discuss BMP selection for the EIS.

Matthew

On Mon, Jul 2, 2018 at 10:30 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Matthew,

Our fish passage program staff have looked the NPRA IAP Table 2.3 Stips and BMPs, and made a possibly significant recommendation for alternative language. The proposed language is below; our draft guidance is attached, and a copy of the email from our Fish Passage Engineer is below as background. The Fish Passage Engineer indicated that 3 years of study would not be necessary if we implemented this method. Of course, welcome your expertise into the discussion to make sure this reflects your knowledge and experience in Arctic environments. I don't believe that springs and associated aufeis are a significant feature of northeastern NPRA, but will be an important engineering consideration for any river crossings in the Arctic Refuge.

Bringing this forward at this time in order to have adequate time to consider and discuss as needed, don't plan to send other proposed changes/edits to BMPs ☺

Thank you,

Wendy

E-14 Best Management Practice

Objective: Ensure the passage of fish at stream crossings.

Requirement/Standard To ensure fish passage and passage of other organisms, bridges are preferred over culverts. To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices outlined in "Fish Passage Design Guidelines" developed by the US Fish and Wildlife Service Alaska Fish Passage Program (June 29, 2018), the basis of these guidelines, "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings" (U.S. Forest Service 2008), and other generally accepted best management procedures prescribed by the authorized officer and the US Fish and Wildlife Service. ~~To adhere to these best~~

~~management practices, at least 3 years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream's ordinary high watermark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream. (Text is same as in Northeast NPR-A 2008 Record of Decision)~~

Original from Table 2.3

E-14 Best Management Practice

Objective: Ensure the passage of fish at stream crossings.

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994), "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the authorized officer. To adhere to these best management practices, at least 3 years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream's ordinary high watermark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

Email background:

The NPRA BMP's for fish passage outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994) and "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991) are based on the hydraulic design method. The hydraulic design method is an outdated method that attempts to match fish swimming ability with the predicted velocity and depth at a road stream crossing to ensure fish passage. This method has not proven very successful as it relies on accurate predictions of the hydrological flow regime. However, the confidence interval on hydrological flow estimates can be plus or minus 100% or more. Using this method to design fish passage structures may result in the installation of new barriers to fish passage.

The USFWS recommends the stream simulation approach for the design of culverts at road stream crossings. The stream simulation approach was developed by the US Forest Service and is outlined in this document "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings" U.S. Forest Service. 2008. In addition, the USFWS has developed the attached guidelines for design of stream simulation culverts in Alaska. The attached guidelines focus on the design features of culverts at road stream crossings that are important to ensure

fish passage. In addition to the BMP's outlined in these documents for stream simulation design, the design engineer should ensure that crossing structures are designed for aufeis, permafrost, sheet flow, additional freeboard during breakup, and other unique conditions of the arctic environment. To allow for sheet flow and flood plain dynamics and to ensure fish passage and passage of other organisms, bridges are preferred over culverts if technically feasible.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

†

From: [Wendy Loya](#)
To: [Lynnda Kahn](#)
Cc: [Joshua Rose](#)
Subject: 1002 Seismic EA update
Date: Tuesday, July 3, 2018 12:34:00 PM

Hi Lynnda,

The seismic permit/EA is back on track after SAE provided more info to BLM/FWS. The current status is that Ecological Services/FFO is working with the Refuge to develop a list of issues to be analyzed. I think they should have something for staff feedback today or Thursday. I am cc'ing Josh Rose who is the acting Oil and Gas Coordinator for the Refuge so he can include you when they seek feedback. It sounds like you will be on leave, but we'll keep you in the loop on this.

Take care,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Leonard, Paul](#)
To: [Wendy Loya](#)
Subject: Re: Celebrate springs!
Date: Tuesday, July 3, 2018 12:56:09 PM

I added township references.

I think there is only one spring in my dataset not covered by an existing NSO buffer and this spring does not support fish and has very little flow. Perhaps all springs could have some language associated with them (e.g., 'unique areas or features') that cover smaller springs where little is known?

Note: On lands unavailable for leasing in the respective alternatives, K-1b would be a best management practice. Under Alternative B, no leasing should be permitted within 3 miles of Sadlerochit Spring, the Fish Hole 1 spring on the Hulahula River or .

Objective: Protect the water quality, quantity and diversity of fish and wildlife habitats and populations associated with springs and aufeis across the coastal plain. River systems with springs provide year round habitat and host the most diverse and largest populations of fish, invertebrates, and wildlife and are associated with major subsistence activity and cultural resources. Aufeis is a unique feature associated with perennial springs and helps sustain river flow during summer and provides insect relief for caribou. Because the subsurface flow paths to perennial springs are unknown and could potentially be disturbed by drilling or fracking activity, we recommend buffer areas around the major perennial springs that support fish populations in which no leasing is permitted.

Requirement/Standard:

- a. Prior to drilling activities subsurface flow paths within watersheds containing springs must be mapped and subsequent drilling activities will conduct in a manner that does not disrupt flow of the perennial springs.
- b. No surface occupancy of new non-subsistence infrastructure will be permitted within three miles of Sadlerochit Spring (04N031E) nor within 1 mi of the Saddlerochit river where aufeis forms (04N031E & 05N031E). Spring is a habitat of special significance on the refuge. It supports an isolated, dwarf population of Dolly Varden, unique plant and invertebrate communities, and an extensive aufeis field that persists through much of the summer providing insect relief habitat for caribou.
- c. No surface occupancy of new non-subsistence infrastructure will be permitted within three miles of the perennial spring at Fish Hole 1 on the Hulahula River (05N032E) nor within 1 mile of the aufeis field (05N032E & 06N032E). The Fish Hole 1 spring provides overwintering habitat for Arctic grayling and a large population of anadromous Dolly Varden. Residents of Kaktovik routinely harvest Dolly Varden in Fish Hole 1 during winter. The spring produces an extensive aufeis field that persists through much of the summer.
- d. No surface occupancy of new non-subsistence infrastructure will be permitted within 2 miles of the perennial Tamayariak Spring and associated aufeis field (07N026E).
- e. No surface occupancy of new non-subsistence infrastructure will be permitted within 2 miles of Okerokavik Spring (04N036E) and associated aufeis field in the Jago River drainage (05N035E & 05N036E)

On Tue, Jul 3, 2018 at 9:56 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Edit as you see fit, and/or we can chat at 1030

K-1c Lease Stipulation/Best Management Practice – Springs/Aufeis

Note: On lands unavailable for leasing in the respective alternatives, K-1b would be a best management practice. Under Alternative B, no leasing should be permitted within 3 miles of Sadlerochit Spring, the Fish Hole 1 spring on the Hulahula River or .

Objective: Protect the water quality, quantity and diversity of fish and wildlife habitats and populations associated with springs and aufeis across the coastal plain. River systems with springs provide year round habitat and host the most diverse and largest populations of fish, invertebrates, and wildlife and are associated with major subsistence activity and cultural resources. Aufeis is a unique feature associated with perennial springs and helps sustain river flow during summer and provides insect relief for caribou. Because the subsurface flow paths to perennial springs are unknown and could potentially be disturbed by drilling or fracking activity, we recommend buffer areas around the major perennial springs that support fish populations in which no leasing is permitted.

Requirement/Standard:

- a. Prior to drilling activities subsurface flow paths within watersheds containing springs must be mapped and subsequent drilling activities will conduct in a manner that does not disrupt flow of the perennial springs.
- b. No surface occupancy of new non-subsistence infrastructure will be permitted within three miles of Sadlerochit Spring nor within 1 mi of the Saddlerochit river where aufeis forms (*need to identify by township*). Spring is a habitat of special significance on the refuge. It supports an isolated, dwarf population of Dolly Varden, unique plant and invertebrate communities, and an extensive aufeis field that persists through much of the summer providing insect relief habitat for caribou.
- c. No surface occupancy of new non-subsistence infrastructure will be permitted within three miles of the perennial spring at Fish Hole 1 on the Hulahula River nor within 1 mile of the aufeis field (*need to identify by township*). The Fish Hole 1 spring provides overwintering habitat for Arctic grayling and a large population of anadromous Dolly Varden. Residents of Kaktovik routinely harvest Dolly Varden in Fish Hole 1 during winter. The spring produces an extensive aufeis field that persists through much of the summer.

d. No surface occupancy of new non-subsistence infrastructure will be permitted within 2 miles of the perennial Tamayariak Spring and associated aufeis field.

e. No surface occupancy of new non-subsistence infrastructure will be permitted within 2 miles of Okerokavik Spring and associated aufeis field in the Jago River drainage

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

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Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Wendy Loya](#)
To: [Mitch Ellis](#)
Subject: another email from Wendy!
Date: Tuesday, July 3, 2018 1:56:00 PM

Thanks for following up on that, sounds like a good plan.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Ellis, Mitch <mitch_ellis@fws.gov>
Sent: Tuesday, July 3, 2018 11:20 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Lor, Socheata <socheata_lor@fws.gov>; Steve Berendzen <steve_berendzen@fws.gov>; Doug Damberg <doug_damberg@fws.gov>
Subject: Discussion with RD regarding seismic permit duplication

Wendy - I spoke with Greg today b5-DP

[REDACTED]

[REDACTED]. Thanks.

Mitch Ellis
Chief of Refuges - Alaska
National Wildlife Refuge System
US Fish and Wildlife Service
(907)786-3667 wk
(907)947-4416 mob

From: [Brown, Randy](#)
To: [Wendy Loya](#)
Subject: Re: Stipulations around springs
Date: Thursday, July 5, 2018 12:21:46 PM

Hi Wendy,

I think the reason for a smaller buffers around the springs in the Tamayariak and Okerokavik are because they are relatively small compared to the Sadlerochit and Huluhula FH1 and don't appear to support any fish during winter. There may be other reasons to increase the size of the buffers around those springs but fish is not one of them. Josh is the one who proposed that water flow paths should be mapped prior to drilling, I was not aware that was possible. If I misunderstood your query, give a shout.

Randy

On Thu, Jul 5, 2018 at 10:07 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Randy,

Below is the draft text we have for protection of springs. The discussion has led to a 3 mi no leasing /no surface occupancy (NSO) around Sadlerochit and Fish Hole 1 springs, and NSO around the associated aufeis fields. That seems inconsistent with asking for a 2 mi buffer around the spring/aufeis fields in the Tamayariak Spring and Okerokavik streams. It seems like bullet point a below requires that groundwater flow be determined and protected, regardless of leasing or aufeis buffer, but that aufeis buffers be consistent at 1 mi across rivers?

Thanks, feel free to call to discuss if easier 907-786-3532.

K-1c Lease Stipulation/Best Management Practice – Springs/Aufeis

Note: On lands unavailable for leasing in the respective alternatives, K-1b would be a best management practice. No leasing should be permitted within 3 miles of Sadlerochit Spring, the Fish Hole 1 spring on the Huluhula River and infrastructure setbacks apply to all identified springs.

Objective: Protect the water quality, quantity and diversity of fish and wildlife habitats and populations associated with springs and aufeis across the coastal plain. River systems with springs provide year round habitat and host the most diverse and largest populations of fish, invertebrates, and wildlife and are associated with major subsistence activity and cultural resources. Aufeis is a unique feature associated with perennial springs and helps sustain river flow during summer and provides insect relief for caribou. Because the subsurface flow paths to perennial springs are unknown and could potentially be disturbed by drilling or

fracking activity, we recommend buffer areas around the major perennial springs that support fish populations in which no leasing is permitted.

Requirement/Standard:

a. Prior to drilling activities subsurface flow paths within watersheds containing springs must be mapped and subsequent drilling activities will conduct in a manner that does not disrupt flow of the perennial springs.

b. No surface occupancy of new non-subsistence infrastructure will be permitted within three miles of Sadlerochit Spring (04N031E) nor within 1 mi of the Saddlerochit river where aufeis forms (04N031E & 05N031E). It supports an isolated, dwarf population of Dolly Varden, unique plant and invertebrate communities, and an extensive aufeis field that persists through much of the summer providing insect relief habitat for caribou.

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d. No surface occupancy of new non-subsistence infrastructure will be permitted within **2 miles** of the perennial Tamayariak Spring and associated aufeis field (07N026E).

e. No surface occupancy of new non-subsistence infrastructure will be permitted within **2 miles** of Okerokavik Spring (04N036E) and associated aufeis field in the Jago River drainage (05N035E & 05N036E)

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

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Randy J. Brown
Fishery Biologist
U.S. Fish and Wildlife Service
101 12th Ave., Room 110
Fairbanks, Alaska 99701

Phone: (907) 456-0295

E-mail: <randy_j_brown@fws.gov>

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Steve Berendzen](#)
Cc: [Drew Crane](#); [Todd Hopkins](#); [Joshua Rose](#); [Joanna Fox](#)
Subject: FWS Draft Stips and BMPs as of 07/05/18
Date: Thursday, July 5, 2018 12:28:00 PM
Attachments: [PotentialMitigationMeasures.pdf](#)
[CoastalP_SOP_Draft.xlsx](#)
[Arctic Refuge Coastal Plain DRAFT Table of Stips and BMPs 070218.docx](#)

Hi Steve and Mary (cc'ing Drew, Todd/John, Joanna and Josh)

Attached is the compiled table of recommended edits to the NPRA Table 2.3 Stips and BMPs. I am still tracking down a few inconsistencies (e.g. springs), but I think overall this is a reasonable draft that will continue to evolve next week as we talk with our partners. Yellow highlight is for our Arctic Refuge specific language, and blue highlights are for things that we seem to need to pin down through discussions internally and with partners. If you'd like to make edits, please do so using either tracked changes and email back, or copy the text into an email and highlight changes (only for small things).

As Mary and Steve may have seen in the attachments Nicole sent in the Monday (10:22am) invitation update for next week, there is an excel file with possible stips/bmps from a bunch of other plans (I'll attach those for POCs). This gets a bit confusing as some of these plans have nothing to do with oil and gas or the Arctic, but there may be language or other ideas that are useful. As I continue to work through our table, I'll look for other ideas and better language and welcome your feedback if you have time to do the same. b5-DP [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] Some of these we have captured, but some can be added as new or as elements of existing BMPs in our table.

Thanks all,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Socheata Lor](#); [Mary Colligan](#)
Subject: FW: Updated budget table for 1002 Contaminants Sampling USGS SSP proposal - please use this one
Date: Thursday, July 5, 2018 1:02:00 PM

FYI

From: Angela Matz <angela_matz@fws.gov>
Sent: Thursday, July 5, 2018 10:57 AM
To: Eric Taylor <eric_taylor@fws.gov>; Wendy Loya <wendy_loya@fws.gov>; John Trawicki <john_trawicki@fws.gov>; Drew Crane <drew_crane@fws.gov>
Subject: Updated budget table for 1002 Contaminants Sampling proposal - please use this one

Hi everyone,

Please use this MUCH CLEARER budget table for any further discussions. I did not make the first one accurate or clear. The difference in budget scalability is what types of samples we collect, not which objectives we meet. With 200K, we can do the regulatory baseline - water, sediments, and vegetation. With an additional \$100K, we can also do fish, which are of ecological and subsistence importance.

b5-DP

For non-USGS funds, the FWS could do this work by hiring two techs and using the USGS lab to analyze abiotic samples (at anywhere from 22-58% overhead - not clear to me which) and FWS contract labs to analyze the fish.

Total Budget (use High column if project budget is not scalable):

High	Medium	Low
\$300K (includes fish sampling)	\$200K (includes only sediments, water, vegetation)	

Sorry for the confusion. Please give me a call if questions at 907-750-8527. Thanks so much!

Angela

--

Angela Matz, Ph.D.
Oil Spill and Contaminants Coordinator, Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road, Anchorage, AK 99503
angela_matz@fws.gov
Mobile: 907-750-8527
Landline: 907-786-3483

From: [Wendy Loya](#)
To: [Nicole Hayes](#)
Subject: FW: Timeline for possible 1002 Leasing EIS actions requiring FWS review
Date: Thursday, July 5, 2018 2:44:00 PM
Importance: High

This is the timeline I have for our IDT team. We can discuss today what our role might be in review of draft alternatives and RFDS and any other comments on Draft EIS review. After that less imperative at this time.

Thanks,
Wendy

Review of Draft Alternatives July 13-16th

Review of Draft Reasonably foreseeable development scenarios July 23-25th

Review of Draft EIS Aug 9-22nd **Try to have all staff on IDT team available Aug 9-16th to review sections in their area of expertise (even if just 2-3 days)

Review of Draft and Final Announcements and Materials for Public Comment version of Draft EIS
Sept 27-Oct 15th

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Fairbanks Meeting 1 day Wed 11/7/18

Utqiagvik Meeting and Section 810 Hearing (Task 4a) 1 day Thu 11/8/18

Washington, DC 1 day Wed 11/14/18

Review of Final EIS Jan 17-30th

Review of Draft ROD May 2-15th

I hope this is helpful, and after the Alternatives workshop July 9-12th, we will make our review plan for the Draft EIS period so we can get from 'ologists to RDT in 2 weeks.

Thanks,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Leonard, Paul](#)
To: [Wendy Loya](#)
Subject: Viewshed
Date: Thursday, July 5, 2018 9:29:38 PM
Attachments: [Viewshed.pdf](#)

Can discuss as many details as you'd like.

Finest resolution I could practicably do (24m spatial grain) given immediate constraints.
Vertical accuracy is probably less than 1m.

Apologies for the ugly map, I am quite limited with this video card (e.g., see the phantom lines in the map?) I can easily stylize differently though if you'd like.

FYI: this is a high-res map so you can print larger or zoom electronically if you'd like.

Cheers,
Paul

--

Paul Leonard, PhD
Science Coordinator
[Arctic LCC](#)
101 12th Ave. Room 216
Fairbanks, AK 99701
(907) 456-0445

From: [Paul Leonard](#)
To: [Wendy Loya](#)
Subject: Re: Viewshed
Date: Thursday, July 5, 2018 11:30:33 PM

Sure,

But just briefly; The orange pixels are areas on the landscape that would be visible from the sample locations (points) if there was a structure 12 meters in height (~40 ft) in that pixel.

Happy to discuss further. There is some nuance.

Cheers,
Paul

Paul Leonard, PhD
Science Coordinator
Arctic Landscape Conservation Cooperative
101 12th Ave. Room 216
Fairbanks, AK 99709
(907) 456-0445

On Jul 5, 2018, at 8:25 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Looks interesting! Not sure that I understand what orange blobs are. Maybe talk in morning, doesn't have to be before 9am since you worked late tonight. Thanks for your perseverance!

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jul 5, 2018, at 19:28, Leonard, Paul <paul_leonard@fws.gov> wrote:

Can discuss as many details as you'd like.

Finest resolution I could practicably do (24m spatial grain) given immediate constraints. Vertical accuracy is probably less than 1m.

Apologies for the ugly map, I am quite limited with this video card (e.g., see the phantom lines in the map?) I can easily stylize differently though if you'd like.

FYI: this is a high-res map so you can print larger or zoom electronically if you'd like.

Cheers,
Paul

--

Paul Leonard, PhD
Science Coordinator
[Arctic LCC](#)
101 12th Ave. Room 216
Fairbanks, AK 99701
(907) 456-0445

<Viewshed.pdf>

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Steve Berendzen](#); [Jennifer Reed](#)
Cc: [Paul Leonard](#)
Subject: Example Viewshed model for hulahula river
Date: Friday, July 6, 2018 10:22:00 AM
Attachments: [hulahula Viewshed. v1_070618.pdf](#)

Dear Mary, Steve and Jen,

Attached is a first draft at a viewshed model by Paul for the Hulahula. Big kudos to him for working through this with a crappy computer and a holiday. It models how visible a 40 ft structure (approx. 3 story building (30ft) with 5 ft airspace over 5 ft gravel pad) would be visible from select points along the river (blue dots). The orange area is the approximate distance to which the building could occur and still be visible. Beyond the orange, the building would not be visible from the blue points (could be visible from points along river not sampled). Clearly Paul was not able to model for every point along the river given time constraints. I am hoping we can take this *as an example* of the type of analysis that should be done in the EIS to evaluate river buffers.

Send thoughts, questions, feedback to Paul and I.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Leonard, Paul <paul_leonard@fws.gov>
Sent: Thursday, July 5, 2018 7:29 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Viewshed

Can discuss as many details as you'd like.

Finest resolution I could practicably do (24m spatial grain) given immediate constraints.
Vertical accuracy is probably less than 1m.

Apologies for the ugly map, I am quite limited with this video card (e.g., see the phantom lines in the map?) I can easily stylize differently though if you'd like.

FYI: this is a high-res map so you can print larger or zoom electronically if you'd like.

Cheers,
Paul

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Cc: [Steve Berendzen](#); [Fox, Joanna](#)
Subject: Issue statement schedule
Date: Friday, July 6, 2018 11:44:48 AM

Wendy,

I spoke with Sarah Lamarr at BLM yesterday and want to give you an update on the schedule for the issue statements. In talking with Sarah I learned the proposed action is not expected to be completed for about a week and a half. Since they don't need the issue statements until they have a proposed action Sarah and I agreed to have our issue statements to them by the 18th of July. To meet that deadline here is an updated schedule.

July 6 - review by refuge management
July 9 - review by Regional POC's
July 11 - return to me for assimilation of comments
July 13 - RDT review and surnaming
July 18 - provide issue statements to BLM

Let me know if you have any issues with this.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Arthur, Stephen](#)
To: [Wendy Loya](#); [Leonard, Paul](#)
Subject: Re: Revised caribou management areas
Date: Friday, July 6, 2018 3:01:49 PM
Attachments: [Special restrictions for Porcupine Caribou management areas.docx](#)

Here it is. Paul, do you want a map of this, and if so what format?

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

On Fri, Jul 6, 2018 at 11:58 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Steve A,

Can you send me the attachment, and also Paul Leonard if you haven't already shared with him?

Thank you!!!

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Berendzen, Steve <steve_berendzen@fws.gov>

Sent: Friday, July 6, 2018 11:51 AM

To: Arthur, Stephen <stephen_arthur@fws.gov>

Cc: Loya, Wendy <wendy_loya@fws.gov>

Subject: Re: Revised caribou management areas

Thanks, Steve - my understanding is that we'll need this description (or a finalized one) at a later time to delineate whatever boundary is decided

Steve Berendzen

Refuge Manager, Arctic National Wildlife Refuge

907-456-0253

On Thu, Jul 5, 2018 at 4:52 PM, Arthur, Stephen <stephen_arthur@fws.gov> wrote:

Attached is a written description of special management areas for caribou in the coastal plain of the Arctic Refuge, based on my discussions with Brian Lawhead and Alex Pritchard (ABR) and Erin Julianus (BLM) this morning. Let me know if you have any questions.

Stephen M. Arthur, Ph.D.

Supervisory Wildlife Biologist

Arctic National Wildlife Refuge

[101 12th Ave., Room 236](#)

[Fairbanks, AK 99701](#)

[\(907\)455-1830](#)

From: [Rose, Joshua](#)
To: [Steve Berendzen](#); [Fox, Joanna](#); [Wendy Loya](#); [Lynnda Kahn](#)
Subject: EA Issue Statements
Date: Friday, July 6, 2018 3:15:37 PM

Sarah, Steve, and I have finished our first go at issue statements. b5-DP [REDACTED]

[REDACTED] Please review and make any suggestions you feel relevant. On Monday I will address them and get them back to you during the POC review.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Leonard, Paul](#)
To: [Arthur, Stephen](#)
Cc: [Wendy Loya](#)
Subject: Re: Revised caribou management areas
Date: Friday, July 6, 2018 3:16:29 PM
Attachments: [Capture.PNG](#)

Hi Steve.

Please see screenshot; I think I have these mapped already. Please let me know if our thoughts are different from this map. I can't open to confirm with townships while I have something else running.....long story.

Cheers,
Paul

On Fri, Jul 6, 2018 at 1:01 PM, Arthur, Stephen <stephen_arthur@fws.gov> wrote:
Here it is. Paul, do you want a map of this, and if so what format?

Stephen M. Arthur, Ph.D.
*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

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Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

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Sent: Friday, July 6, 2018 11:51 AM
To: Arthur, Stephen <stephen_arthur@fws.gov>
Cc: Loya, Wendy <wendy_loya@fws.gov>
Subject: Re: Revised caribou management areas

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Stephen M. Arthur, Ph.D.

Supervisory Wildlife Biologist

Arctic National Wildlife Refuge

[101 12th Ave., Room 236](#)

[Fairbanks, AK 99701](#)

[\(907\)455-1830](#)

--

Paul Leonard, PhD
Science Coordinator

0000008481

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Leonard, Paul](#)
To: [Arthur, Stephen](#)
Cc: [Wendy Loya](#)
Subject: Re: Revised caribou management areas
Date: Friday, July 6, 2018 4:22:38 PM

Thanks Steve,

I'm updating our maps with what appears to be an additional 3 miles along most of the northern border of the previous range.

Cheers,
Paul

On Fri, Jul 6, 2018 at 1:32 PM, Arthur, Stephen <stephen_arthur@fws.gov> wrote:

I added a strip along the top based on our discussions yesterday. See the attached shapefile SpecArea_Diss. I'm including the calving and post calving distributions as well.

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

On Fri, Jul 6, 2018 at 1:15 PM, Leonard, Paul <paul_leonard@fws.gov> wrote:

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Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
[101 12th Ave., Room 236](#)
[Fairbanks, AK 99701](#)
[\(907\)455-1830](tel:(907)455-1830)*

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Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Berendzen, Steve <steve_berendzen@fws.gov>

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To: Arthur, Stephen <stephen_arthur@fws.gov>

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Refuge Manager, Arctic National Wildlife Refuge

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Stephen M. Arthur, Ph.D.

Supervisory Wildlife Biologist

Arctic National Wildlife Refuge

[101 12th Ave., Room 236](#)

[Fairbanks, AK 99701](#)

[\(907\)455-1830](#)

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

[101 12th Ave. Room 216](#)

[Fairbanks, AK 99701](#)

[\(907\) 456-0445](#)

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Leonard, Paul](#)
To: [Wendy Loya](#)
Subject: Re: Winter Tundra Travel
Date: Friday, July 6, 2018 5:35:13 PM

Well said.

I had a good chat with ES.

Doesn't sound like duplication to me.

On Fri, Jul 6, 2018 at 3:24 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Sarah.

Paul and I have been working with UAF on methods for detecting snow depth and the role of snow density at a landscape scale as a component of winter tundra travel. I think that piece will ultimately complement the task you all are working on **b5-DP**

So I believe it is worth continuing on your piece.

Next week for both the EIS and EA we will need **b5-DP** and I would expect the review to be helpful immediately.

b5-DP It will take all of us working together with different pieces to make good recommendations.

Thank you,
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jul 6, 2018, at 14:51, Conn, Sarah <sarah_conn@fws.gov> wrote:

Hi Folks,

I fear we have a case of left hand not communicating with the right hand again... Last week on on of the 1002 calls I offered that our shop (Fairbanks Field Office) would be happy to do a literature review and develop a white paper on impacts associated with tundra travel / winter seismic work. Last Friday I checked with Arctic Refuge and they thought it would be very useful, but they hadn't started anything like that yet. So I've had our CPA staff working on that this week.

However, it sounds like maybe Paul Leonard is also working on a similar task

so I've asked out folks to cease and desist at this point. I don't want to duplicate efforts so I'm hoping that Wendy you can clarify who is working on what?

Thanks,

Sarah

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Mitch Ellis](#); [Eric Taylor](#); [Sara Boario](#)
Cc: [Greg Siekaniec](#); [Karen Clark](#)
Subject: Draft documents for 1002 Alternatives workshop
Date: Monday, July 9, 2018 8:10:00 AM
Attachments: [DRAFT FWS Comments on Arctic Refuge Coastal Plain Leasing EIS Alternatives 070618.docx](#)
[Arctic Refuge Coastal Plain DRAFT Table of Stips and BMPs 070918.docx](#)
[DRAFT 1002 Map for Alternatives workshop 070918.docx](#)

Dear 1002 RDT,

Attached are draft documents we have prepared as background materials for the BLM hosted workshop July 9-12th. These are similar to the materials we shared in the meeting on Friday July 29th. They include:

1. DRAFT FWS comments on BLM Alternatives
2. DRAFT FWS Map of recommended protections (referred to in #1 as Attachment 1)
3. DRAFT FWS suggested Leasing Stipulations and BMPs ((referred to in #1 as Attachment 2)

This Friday July 13th, we will need to turn these into our [Final Comments on the Draft Alternatives](#) and submit to BLM.

Given that workshop that will lead us to our final recommendations runs the 9th-12th, I am sending these now so that you can pre-review and we can quickly address questions or concerns on Friday the 13th when we prepare the final versions. I will provide a narrative of any major deviations after the workshop. The details most likely to change are highlighted in blue. **In the Leasing Stipulations table, Section K (starting page 23) identifies the primary means for ensuring an alternative meets all 5 purposes of the Refuge.**

Mary Colligan, Steve Berendzen and I will represent the FWS at the meeting and be at BLM Mon - Thurs.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Crane, Drew](#)
To: [Mary Colligan](#); [Wendy Loya](#); [Sarah Conn](#)
Cc: [David Wigglesworth](#)
Subject: Signed 1002 Memo
Date: Monday, July 9, 2018 12:11:35 PM
Attachments: [Signed Memo.pdf](#)

Hi Mary,

The signed memo is attached. Let me know if you need anything else.

Thanks

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

From: [Conn, Sarah](#)
To: [Crane, Drew](#); [Mary Colligan](#); [Wendy Loya](#); [Wigglesworth, David](#)
Subject: Re: Signed 1002 Memo
Date: Monday, July 9, 2018 12:14:11 PM

Thanks Drew!

I see I demoted from Dr. Conn to Ms. Conn! I really hope that means my answers can be less well thought out ;-). Joking, I am looking for excuses as this is all going to get a bit gnarly I fear...

Cheers,

Sarah

On Mon, Jul 9, 2018 at 10:11 AM, Crane, Drew <drew_crane@fws.gov> wrote:

Hi Mary,

The signed memo is attached. Let me know if you need anything else.

Thanks

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

From: [Sarah LaMarr](#)
To: [Rose, Joshua](#); [Wendy Loya](#); [Wixon, Donna](#); [Joanna Fox](#); [Steve Berendzen](#)
Subject: Tomorrow's Seismic EA Check In
Date: Monday, July 9, 2018 5:44:57 PM
Attachments: [NEPAHandbook_H-1790_508.pdf](#)
[Issue Discussion.pdf](#)

Hi folks -

Do you folks have a Coastal Plain EIS call tomorrow? Were you planning on coming to the BLM or are you folks involved in the Coastal Plain EIS alternative development workshop this week?

I'm assuming you're involved in the EIS alternative workshop but, if not, we may want to cancel our meeting tomorrow. Both Donna and Shelly will be out but I'm more than happy to chat if you want/need too!

Josh - attached is the BLM NEPA handbook that I promised to send. There's a good discussion on issues (page 40). I'm also attaching a good discussion specifically on issues.

Sarah La Marr
Bureau of Land Management
Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

From: [Sarah LaMarr](#)
To: [Rose, Joshua](#); [Wendy Loya](#); [Wixon, Donna](#); [Joanna Fox](#); [Steve Berendzen](#); [Nichelle Jones](#)
Subject: Re: Tomorrow's Seismic EA Check In
Date: Monday, July 9, 2018 6:07:55 PM
Attachments: [Seismic Schedule July 9 2018.docx](#)

And, the latest schedule.....

Sarah La Marr
Bureau of Land Management
Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

On Mon, Jul 9, 2018 at 3:44 PM Sarah LaMarr <slamarr@blm.gov> wrote:

Hi folks -

Do you folks have a Coastal Plain EIS call tomorrow? Were you planning on coming to the BLM or are you folks involved in the Coastal Plain EIS alternative development workshop this week?

I'm assuming you're involved in the EIS alternative workshop but, if not, we may want to cancel our meeting tomorrow. Both Donna and Shelly will be out but I'm more than happy to chat if you want/need too!

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Sarah La Marr
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Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

From: [Greg Siekaniec](#)
To: [Colligan, Mary](#)
Cc: [Wendy Loya](#); [Karen Clark](#); [Steve Berendzen](#)
Subject: Re: Update from Alternatives workshop and urgent request
Date: Monday, July 9, 2018 10:10:27 PM

Thanks for the update and thoughts. b5-DP

Greg

Sent from my iPhone

On Jul 9, 2018, at 6:27 PM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Just to add a bit to Wendy's message, Mike Giesyic's b5-DP/AC

[Redacted]

On Mon, Jul 9, 2018 at 4:42 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hey Greg,

Today's BLM hosted workshop b5-DP/AC

[Redacted]

b5-DP/AC

[Redacted]

65-DP/AC No extra time.

Thank you, feel free to call me tomorrow to discuss if you wish 907-227-2942.
We can share images if needed ☺

On behalf of the 1002 team,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: ["kate.krebs@empsi.com"](mailto:kate.krebs@empsi.com)
Subject: FWS DRAFT suggested K-Stipulations
Date: Tuesday, July 10, 2018 11:07:00 PM
Attachments: [UPDATED Arctic Refuge Coastal Plain DRAFT Table of Stips and BMPs 071018.docx](#)

Hi Kate,

Attached are our current recommendations for the K-Stipulations. There were a few significant edits I needed to incorporate this evening from our caribou biology team and following preliminary conversations with the Kaktovik residents.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Randy Brown](#); [Vanessa von Biela](#)
Cc: [John Pearce](#); [Drew Crane](#)
Subject: Request for full proposal: Dolly Varden overwintering habitat
Date: Tuesday, July 10, 2018 11:48:00 PM

Dear Randy and Vanessa,

The FWS would like to see a full proposal for the Dolly Varden project you described in your pre-proposal. Below are questions from one reviewer that should be considered. Based on draft best management practices for the EIS, we don't expect that water withdrawals from rivers will be permitted, so the proposal should address the other management implications as well.

The deadline for full proposals to FWS is August 16th so that our 1002 team can review prior to submission to USGS by August 31st.

4. Overwinter Distribution of juvenile Dolly Varden in the Canning River, Alaska

- The authors propose *identifying sensitive pockets of overwintering habitat [will provide] an opportunity to mitigate the influence of industrial development on the importance subsistence Dolly Varden fishery*. Please describe: (i) why these areas are sensitive relative to other habitats, (ii) what mitigation for what types of industrial development; and (iii) the relative importance of this subsistence fishery compared to whitefish and other species and the rural Alaska communities dependence upon the Dolly Varden fishery.
- Has overwinter distribution of juveniles in the Canning River been identified as a critical life history stage important to the overall viability of Dolly Varden?
- Please explain if/how water resources in a river are used to support oil and gas exploration/development/production. Does the State of Alaska permit water withdrawal from anadromous rivers such as the Canning? Is gravel mining allowed in anadromous fish streams and rivers and if so, are current BMPs and permit stipulations sufficient to protect habitats?
- If excavation of large gravel pits is allowed in Arctic rivers, does this provide for overwintering fish habitat i.e., habitat enhancement or are there other positive and negative effects?
- Please explain how the information obtained from this research will be used by permitting agencies to allow, deny, or design potential gravel mines in the Canning River to support oil and gas roads, drill pads, and other infrastructure.
- Given the Canning River supports the largest population of Dolly Varden in the Arctic National Wildlife Refuge, and is one of the largest of all the char-producing rivers draining into the Beaufort Sea, how will these research findings be used by permitting agencies to allow, permit or deny gravel mining in the Canning?

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Courtney Amundson](#); [Charles Frost](#)
Cc: [John Pearce](#); [Eric Taylor](#)
Subject: Request for full proposal: Waterbird habitat associations
Date: Tuesday, July 10, 2018 11:52:00 PM

Dear Courtney and Chuck,

The FWS would like to see a full proposal for the waterbird habitat project you described in your pre-proposal. Below are questions from one reviewer that should be considered. Other important considerations we would like you to consider include: 1) would it be better to wait on this project until more data are available from more transects for the 1002 area?; and 2) the FWS is anticipating completion of updated vegetation, wetland and NHD mapping in 2 years; would this project benefit from waiting for these updated data?

The deadline for full proposals to FWS is August 16th so that our 1002 team can review prior to submission to USGS by August 31st.

5. Distribution and Abundance of Breeding Waterbirds in Relation to Habitat Type on the 1002 Area of the Arctic National Wildlife Refuge, Alaska

- The proposal has merit and will yield information that will be useful in planning development activities within the 1002 area that reduces the impacts to migratory birds. However, determining habitat and distribution relationships does not imply that birds will be specific areas of proposed oil and gas exploration/development/production. Rather, regulatory agencies will be able to say that Habitat Type X appears to be selected by Migratory Bird Species R, S and T.

- Detection rates estimated for aerial surveys remains a priority to national and regional MBM Programs; however, the methodology for analysis and data collection have been, and remain challenging. To that end, this proposal would make progress for this specific survey.

- The authors' state: *We can also use the increased sampling effort in 2018 to improve precision of population trends for the 1002*". However, because the 1002 has not been sampled in its entirety until this year, any improvement in precision of trend would be limited to the very coastal fringe of the 1002 Area where a very small fraction of the area has been sampled over time, and the detection rate would only be applicable to one observer who has been involved in the project for approximately 5 years.

- It would be helpful if the authors described the suite of avian species breeding on the Arctic NWR Coastal Plain that will be examined for diversity, distribution, population size, and habitat associations.

- Please describe how the scale of these analyses will provide sufficient detail for *guiding leasing and development decisions and providing baseline information prior to development*.

- Similar to the previous comment, the authors state that *our efforts will provide valuable information to industry and managers tasked with determining preferred leasing, road, and other development locations and managing species and specific areas within federal lands*. Please describe if this research will provide presence, distribution, abundance and diversity estimates of sufficient detail as to guide development of a road or drill pad. Would not site-specific information still be required to assess alternatives?

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Heather Johnson](#); [Stephen Arthur](#)
Cc: [John Pearce](#); [John Trawicki](#)
Subject: Request for full proposal: calving/post-calving habitat
Date: Tuesday, July 10, 2018 11:57:00 PM

Dear Steve and Heather,

The FWS would like to see a full proposal for the caribou calving habitat use (\$50K) you described in your pre-proposal. Below are questions from one reviewer that should be considered. Another important consideration we would like you to consider is that the FWS is anticipating completion of updated vegetation, wetland and NHD mapping in 2 years; would this project benefit from waiting for these updated data?

The project relating caribou forage conditions to caribou habitat use and neonate calf survival (\$192K) was not selected for a full proposal for consideration in this funding cycle by the FWS.

The deadline for full proposals to FWS is August 16th so that our 1002 team can review prior to submission to USGS by August 31st.

6. Evaluating factors associated with calving and post-calving habitat use of the Porcupine Caribou Herd and their influence on neonate calf survival.

- Please describe the current knowledge and understanding of calving and post-calving areas within the Arctic Refuge. See Griffith et al. 2002. The Porcupine caribou herd. Pages 8-37 in Douglas, D.C. et al. USGS/BRD/BSR-2002-0001.

- Please describe how past studies have been used to assess potential effects of different development scenarios on calving and post-calving areas within the Arctic Refuge and likely impacts to abundance trend of the PCH. For example, see Griffith et al. 2002 and others.

- Given the current range of neonate survival estimates (0.59-1.0), please provide the likelihood that covariate (vegetation types, vegetation phenology, snow conditions, predator densities represented by distances to the foothills/mountains, and topographic features) based analyses will predict neonate survival at the habitat level.

- The authors seek to determine the likely consequences of displacing caribou from calving and post-calving ranges within the Arctic Refuge. How will this aspect differ from previous analyses and reports?

- Please describe how the shifting of calving grounds by the CAH due to oil and gas development has impacted abundance, trend and health of the herd.

The proposed work *would identify and map key areas for caribou that could be used by DOI agencies...and industry for future development planning...* Please describe previous research addressing this specific question and how this research is necessary to mitigate risks associated with oil and gas exploration and development. How will this proposed work refine previous estimates? Do the authors plan to simulate how potential development scenarios could displace the PCH from concentrated calving areas, annual calving and the aggregate extent of calving based on quantifying forage conditions across these areas and resultant effects on abundance and population trend?

- What is meant by *clarify the value of the 1002 Area relative to other calving and post-calving ranges*? Please describe where other calving and post-calving ranges and plans to sample these areas to provide comparative data with the 1002 area.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Allen, Tim](#)
To: [Wendy Loya](#)
Subject: Re: Air quality BMP
Date: Wednesday, July 11, 2018 8:28:58 AM
Attachments: [image001.png](#)

Wendy, there are a couple issues outstanding (analysis). Is there a time we can talk on the phone?

Tim

On Tue, Jul 10, 2018 at 10:38 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Tim, Catherine and Angela,

We are discussing the following BMP and need your input. The suggestion is being made that bullet point e (e.) is redundant with the MOU and should be removed. An alternate suggestion was to remove Sensitive Class II, but we would only do that if we could pinpoint another authority to achieve similar air quality protection.

Alan will be in touch as the BLM expert on this, and FWS will take recommended edits, if any, and incorporate them into our recommended stipulations.

Thank you,

Wendy

A-10 Best Management Practice

Objective: Prevent unnecessary or undue degradation of **the air and lands** and protect health.

Requirement/Standard: This measure includes the following elements:

a. Prior to initiation of a NEPA analysis for an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source (hereafter project), the authorizing officer (~~BLM~~) may require the project proponent to provide a minimum of one year of baseline ambient air monitoring data for any pollutant(s) of concern as determined by the **authorized officer** if no representative air monitoring data are available for the project area, or existing

representative ambient air monitoring data are insufficient, incomplete, or do not meet minimum air monitoring standards set by the Alaska DEC or the EPA. If the **authorized officer** determines that baseline monitoring is required, this pre-analysis data must meet Alaska DEC and EPA air monitoring standards, and cover the year immediately prior to the submittal. Pre-project monitoring may not be appropriate where the life of the project is less than one year.

b. The **authorized officer** may require monitoring for the life of the project depending on the magnitude of potential air emissions from the project, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within or proximity to a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project.

c. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the project proponent shall prepare (and submit for **BLM** approval by **the authorized officer**) an emissions inventory that includes quantified emissions of regulated air pollutants from all direct and indirect sources related to the proposed project, including reasonably foreseeable air pollutant emissions of criteria air pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases estimated for each year for the life of the project. The **BLM authorized officer** will use this estimated emissions inventory to identify pollutants of concern and to determine the appropriate level of air analysis to be conducted for the proposed project.

d. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the **BLM authorized officer** may require the proponent to provide an emissions reduction plan that includes a detailed description of operator committed measures to reduce project related air pollutant emissions including, but not limited to greenhouse gases, **mercury and other heavy metals**, and fugitive dust.

e. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the authorized officer may require air quality modeling for purposes of analyzing project direct, indirect or cumulative impacts to air quality. The **BLM authorized officer** may require air quality modeling depending on the magnitude of potential air emissions from the project or activity, duration of the proposed action, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project. The **BLM authorized officer** will determine the information required for a project specific modeling analysis through the development of a modeling protocol for each analysis. The authorized officer will consult with the **US Fish and Wildlife Service** and other appropriate federal, State, and/or local agencies regarding modeling to inform his/her modeling decision and avoid duplication of effort. The modeling shall compare predicted impacts to all applicable local, State, and federal air quality standards and increments, as

well as other scientifically defensible significance thresholds (such as impacts to air quality related values, incremental cancer risks, etc.).

f. The **BLM authorized officer** may require air quality mitigation measures and strategies within its authority (and in consultation with local, state, federal, and tribal agencies with responsibility for managing air resources) in addition to regulatory requirements and proponent committed emission reduction measures, and for emission sources not otherwise regulated by Alaska DEC or EPA, if the air quality analysis shows potential future impacts to NAAQS or AAAQS or impacts above specific levels of concern for air quality related values (AQRVs).

g. If ambient air monitoring indicates that project-related emissions are causing or contributing to impacts that would cause unnecessary or undue degradation of the lands, cause exceedances of NAAQS, or fail to protect health (either directly or through use of subsistence resources), the authorized officer may require changes in activities at any time to reduce these emissions to comply with the NAAQS and/or minimize impacts to AQRVs. Within the scope of BLM's authority, ~~the BLM~~ the **authorized officer** may require additional emission control strategies to minimize or reduce impacts to air quality.

h. ~~(Alternative B-2 only)~~ Publicly available reports on air quality baseline monitoring, emissions inventory, and modeling results developed in conformance with this best management procedure shall be provided by the project proponent to the North Slope Borough and to local communities and tribes in a timely manner.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Tim Allen

U.S. Fish & Wildlife Service

(303) 914-3802

From: [Arthur, Stephen](#)
To: [Wendy Loya](#)
Subject: Re: Clarification on Caribou Summer Habitat Stipulation
Date: Wednesday, July 11, 2018 11:29:56 AM

Wendy,

Yes, this stipulation should apply throughout the 1002 Area. The western-most section is often used by Central Arctic caribou for summer habitat, and to a lesser extent for calving and winter habitat, and that herd is arguably the most likely to be affected by summer development activities (assuming this area will be the focus of oil development activity). In my view, there is quite a bit of flexibility in these stipulations to allow the authorized officer to make appropriate adjustments to accommodate development needs.

Steve

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

On Tue, Jul 10, 2018 at 8:58 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Steve A,

I need clarification by Wednesday morning about the extent to which you and the other caribou biologists recommend applying the following stipulation. The Note at the beginning indicates it would apply to the entire 1002 area, so need to confirm.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

K-5a Lease Stipulation/Best Management Practice –Caribou Summer Habitat

Note: All lands within the Arctic Refuge Coastal Plain are recognized as habitat of the Porcupine and Central Arctic caribou herds and shall be managed to ensure unhindered movement of caribou through the area.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements through portions the Coastal Plain that are essential for summer use by caribou, including calving and rearing, insect-relief, and migration.

Requirement/Standard: The following standards will be applied to permitted activities:

- a. Within the Arctic Refuge Coastal Plain, lessees shall orient linear corridors when laying out oil and gas field developments to avoid impeding caribou migration and to avoid corralling effects created by loops of road and/or pipeline that connect facilities.
- b. Ramps over pipelines, buried pipelines, or pipelines buried under the road may be required by the authorized officer, after consultation with the US Fish and Wildlife Service, and other appropriate federal, State, and North Slope Borough regulatory and resource agencies, where pipelines potentially impede caribou movement.
- c. Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended from no later than May 20 through no earlier than July 20, unless approved by the authorized officer in consultation with the US Fish and Wildlife Service and appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20 or if they remain in the area in significant numbers past July 20, major construction activities will be suspended. The lessee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival and/or late departure. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.
- d. The following ground and air traffic restrictions shall apply in the areas and time periods indicated. Ground traffic restrictions apply to permanent oil and gas-related roads:
 1. From May 20 through July 20, traffic speed shall not exceed 15 miles per hour when caribou are within 0.5 mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined

to be unacceptable.

2. The lessee or a contractor shall observe caribou movement from May 20 through July 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped:

a. temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.

b. by direction of the authorized officer throughout a defined area for up to four weeks to prevent displacement of calving caribou. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

3. Major equipment, materials, and supplies to be used at oil and gas work sites shall be stockpiled prior to or after the period of May 20 through July 20 to minimize road traffic during that period.

4. Aircraft use (including fixed wing and helicopter) shall be restricted in areas where caribou are present from May 20 through July 20 unless doing so endangers human life or violates safe flying practices. Authorized users of the Arctic National Wildlife Refuge may be restricted from using aircraft larger than a Twin Otter, and limited to an average of one fixed-wing aircraft takeoff and landing per day per airstrip, except for emergency purposes. Restrictions may include prohibiting the use of aircraft larger than a Twin Otter by authorized users of the Arctic National Wildlife, including oil and gas lessees, from May 20 through July 20 in areas where caribou are present, except for emergency purposes. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the authorized officer if resulting disturbance is determined to be unacceptable. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

5. Aircraft shall maintain a minimum height of 1,000 feet above ground level (except for takeoffs and landings) from May 20 through July 20, unless doing so endangers human life or violates safe flying practices. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

From: [Ray, Diane](#)
To: [Loya, Wendy](#)
Subject: memo, NTR, etc...
Date: Wednesday, July 11, 2018 12:30:36 PM
Attachments: [2018 0706 FINAL Coastal-ScopRpt_coopagencycmnts.docx](#)
[Signed NTR Coastal Plain Leasing.pdf](#)
[2018 0706Coastal Plain Leasing draft public scoping report transmittal v2.docx](#)

the memo is dated today, the protected view is not, but the enable edit view is, maybe when I send it will be ok

di

--

[Diane Marie Ray, Secretary](#)
[Office of Science Applications](#)
[1011 E Tudor Road MS 281](#)
[Anchorage, Alaska 99503](#)
[907-786-3873](#)

From: [Kate Krebs](#)
To: [Wendy Loya](#)
Cc: [Hayes, Miriam \(Nicole\)](#); [Chad Ricklefs](#); [Amy Lewis](#)
Subject: [EXTERNAL] USFWS Action Items
Date: Thursday, July 12, 2018 9:15:17 AM

Wendy:

Thank you so much for your participation this week. I think I speak for the BLM when I say that this week would not have gone as well if USFWS had not put such thought into the alternatives in advance of the meeting.

I have the following action items for you/USFWS:

- Update part a of Stip K-1c (springs/aufeis) because it would require drilling.
- Springs/Aufeis (K1c): FWS doesn't have a good understanding of groundwater and how to protect. Where is ice chip harvesting dealt with? Tamayarik and Okerokavik are both located in high potential area. FWS will think more about this with their hydrology specialists.
- Stip K-5a (caribou summer habitat):
 - Part b: Define significant
 - Part 2: one part uses 10 or more caribou, then goes on to say "a large number of caribou". Can there be consistency in using numbers versus more generic language
- Stip K-5c (post-calving): Update 0.6% if there is something more appropriate
- Birds: FWS asked to look to new USGS breeding bird maps to update this data shown on current map; suggests there are four species that use the Refuge more than others (jaegers, etc) (FWS TO PROVIDE?)
- Caribou: FWS might have data on calving success rates to share
- FWS: Wendy is drafting BMP re. snow fences

Kate Krebs

EMPSi Environmental Management and Planning Solutions, Inc.

Please note our new street address:

3005 Center Green Drive, Suite 205

Boulder, CO 80301

tel: 303-495-3506 main: 303-447-7160 fax: 866-625-0707

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0000008508

From: [Wendy Loya](#)
To: [Richard Lanctot](#)
Subject: RE: waterfowl/shorebird tagging on the 1002 Area
Date: Thursday, July 12, 2018 10:04:00 AM

Rick,

Super busy today but will try to get back to you tomorrow, but don't let me forget!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Lanctot, Richard <richard_lanctot@fws.gov>
Sent: Wednesday, July 11, 2018 10:09 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: waterfowl/shorebird tagging on the 1002 Area

Hi Wendy,

Will Lacy, our financial administrator, informed that we were getting \$20K to help purchase tags for deploying on waterfowl/shorebirds in the 1002 Area. Thank you so much for having confidence in the project!

I assume this work would be done in conjunction with the PRISM surveys planned for next year? At one point, I thought these funds were headed to Chris Latty but then heard he decided not to pursue the purchase of tags for 2018. It would be good for me to have a better understanding of your expectations related to this given that the tags cost \$1500 and Argos fees are another \$180/tag. Thus we won't get out too many tags and think it would be prudent to focus efforts on a limited number of species. I also want to ensure the Arctic Refuge is on board with the project.

If you are around, let me know and we can discuss in person.

Cheers, Rick

Richard Lanctot, PhD
Region 7 Shorebird Coordinator
U.S. Fish and Wildlife Service
1011 East Tudor Road, MS 201
Anchorage, Alaska 99503
Ph: 907-786-3609
Fax: 907-786-3641
Cell: 907-440-9733
E-mail: richard_lanctot@fws.gov

"Hockey is Life - Keep your stick on the ice!" Unknown author

From: [Wendy Loya](#)
To: [Miriam \(Nicole\) Hayes](#)
Subject: RE: [EXTERNAL] Core Caribou Areas
Date: Thursday, July 12, 2018 10:07:00 AM

Let me check with Steve Arthur and we will circle back.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Hayes, Miriam (Nicole) <mnhayes@blm.gov>
Sent: Thursday, July 12, 2018 8:04 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Fwd: [EXTERNAL] Core Caribou Areas

Hi Wendy,
The NSB is looking for this information. Are you able to provide anything to them?

Nicole

Nicole Hayes

Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

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

From: **Kevin S. Fisher** <Kevin.Fisher@north-slope.org>
Date: Thu, Jul 12, 2018 at 7:46 AM
Subject: Re: [EXTERNAL] Core Caribou Areas
To: "Hayes, Miriam (Nicole)" <mnhayes@blm.gov>

Good morning Nicole,

I was interested in the porcupine Caribou herd maps. Also, I would like the map of the 1002 area detailing the high, medium and low potential resource areas.

Should I email FWS for these maps?

Thanks,

Kevin

Sent from my iPhone

0000008511

On Jul 12, 2018, at 7:02 AM, Hayes, Miriam (Nicole) <mnhayes@blm.gov> wrote:

The maps of the Porcupine Caribou Herd? Or Central? We have the data and maps for Central, FWS is the one that has the data for Porcupine (we are in the process of trying to obtain).

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

[222 W. 7th Avenue #13](#)

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

On Wed, Jul 11, 2018 at 4:39 PM, Kevin S. Fisher <Kevin.Fisher@north-slope.org> wrote:

Hello Nicole,

Can you send me (or direct me to) the Caribou collar monitoring study we previewed at the workshop?

Thanks,

Kevin Fisher

Sent from my iPhone

From: [Wendy Loya](#)
To: [Sarah Conn](#); [Mary Colligan](#)
Subject: RE: Signed 1002 Memo
Date: Thursday, July 12, 2018 12:25:00 PM

Sarah,

Sounds good. Please Cc me when you send it to Shelly Jones at BLM.

Thank you!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Conn, Sarah <sarah_conn@fws.gov>
Sent: Thursday, July 12, 2018 10:22 AM
To: Colligan, Mary <mary_colligan@fws.gov>
Cc: Crane, Drew <drew_crane@fws.gov>; Wendy Loya <wendy_loya@fws.gov>; David Wigglesworth <david_wigglesworth@fws.gov>
Subject: Re: Signed 1002 Memo

Hi Mary,

I haven't sent the memo anywhere 'coz of the protocol thing. However, I'll send it to the Arctic Field Office folks now.

Thanks,

Sarah

On Thu, Jul 12, 2018 at 9:56 AM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Sarah - Have you shared this with your counterpart at BLM? I am assuming you will do that/or have done that. I realized this has likely not gone to Karen M so I will send it to Greg now and ask that he send it over to Karen. These are the complications of our communication protocol....

On Mon, Jul 9, 2018 at 10:11 AM, Crane, Drew <drew_crane@fws.gov> wrote:

Hi Mary,

The signed memo is attached. Let me know if you need anything else.

Thanks

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
[1011 E. Tudor Road](#)
[Anchorage, AK 99503](#)
907-786-3323

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
[1011 E. Tudor Road](#), MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Casey Burns](#)
Cc: [Miriam \(Nicole\) Hayes](#); ["Chad Ricklefs"](#); ["Amy Lewis"](#); ["kate.krebs@empsi.com"](#)
Subject: ACP Bird survey data for EIS
Date: Thursday, July 12, 2018 12:38:00 PM

Hi Casey,

At the workshop this week EMPSi shared data they and BLM had prepared for birds, and it appeared significantly different from what USGS presented in the meeting you attended at FWS and seemed to not capture the 4 species that were highlighted as using the 1002 area. Kate has asked for those data, and I expect that you have asked or will ask USGS for them. Can you please provide this email list with a response about those data and what would be the most appropriate data for inclusion in the EIS?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

b5-DP



Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Arthur, Stephen](#)
To: [Wendy Loya](#)
Subject: Re: tightening Caribou stipulation language
Date: Thursday, July 12, 2018 12:59:09 PM
Attachments: [CAH productivity.pdf](#)
[PCH summary.pdf](#)

Wendy,

It is true that the area on the east side of the Canning River has been used for calving by some CAH in some years but that was when the herd was nearing its maximum size, while the PCH was relatively low and mainly calving in Canada. Even then, the Refuge was on the periphery of the CAH calving range. In any case, the CAH is likely to be far more affected by activities west of the Refuge, between the Canning and Sagavanirktok Rivers, than by what happens within the Refuge.

However, due to the variability in caribou movements and distributions among years, I do think it is worth putting in a BMP that would allow managers to restrict activities that create the greatest disturbance during years when "large" numbers of caribou are in the area, regardless of which herd they belong to. b5-DP


In practice, I think we would consider something like 10% of the calving caribou cows from either herd to be significant, or groups of 1,000 or more caribou during the insect relief season.

The attached tables show estimates of productivity (based on calf:cow ratios in late June) for both herds.

Let me know if you have other questions.

Steve

Stephen M. Arthur, Ph.D.
*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

On Thu, Jul 12, 2018 at 8:24 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Steve A,

I have two action items for today if you can please assist: 1) we need to clarify some language in our caribou stipulation after discussion with partners at the workshop this week and 2) Do we have any data to share on calving success rates? I don't remember the full context of the request for #2, so if that is a request that would require work beyond pointing

0000008518

to the latest report from FWS/PCTC or ADFG), then we can find out more.

- Stip K-5a (caribou summer habitat):
 - Part b: Define significant
 - Part 2: one part uses 10 or more caribou, then goes on to say “a large number of caribou”. Can there be consistency in using numbers versus more generic language

Can you please provide your recommended edits to be today, ideally this morning 😊? I think the 10 caribou is reasonable for temporary traffic halt, but what would be the threshold for stopping significant construction activity for calving caribou?

Also, BLM showed Central Arctic Herd data that has them calving on the SW edge near the canning and in our Summer Habitat use area. So the question came up if July 20th was sufficient to protect that herd? We don't want to over-ask on development in the eastern area, but we also want to make sure we aren't causing harm to the Central herd.

Stipulation language as it exists now is below, feel free to move into word if easier.

K-5a Lease Stipulation/Best Management Practice –Caribou Summer Habitat

Note: All lands within the Arctic Refuge Coastal Plain are recognized as habitat of the Porcupine and Central Arctic caribou herds and shall be managed to ensure unhindered movement of caribou through the area.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements through portions the Coastal Plain that are essential for summer use by caribou, including calving and rearing, insect-relief, and migration.

Requirement/Standard: The following standards will be applied to permitted activities:

a. Lessees shall orient infrastructure when laying out oil and gas field developments to avoid impeding caribou migration and to avoid corralling effects. Before authorization of construction of permanent facilities (limited as they may be by restricted surface occupancy areas established in other lease stipulations), the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Porcupine

and Central Arctic Caribou herds has been completed within the last 10 years.

c. Heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended from no later than May 20 through no earlier than July 20, unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20 **or if they remain in the area in significant numbers** past July 20, major construction activities will be suspended. The lessee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival and/or late departure. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.

d. The following ground and air traffic restrictions shall apply in the areas and time periods indicated. Ground traffic restrictions apply to permanent oil and gas-related roads:

1. From May 20 through July 20, traffic speed shall not exceed 15 miles per hour when caribou are within 0.5 mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

2. The lessee or a contractor shall observe caribou movement from May 20 through July 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped:

a. **temporarily to allow a crossing by 10 or more caribou.** Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.

b. by direction of the authorized officer throughout a defined area for up to four weeks to prevent displacement of calving caribou. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

3. Major equipment, materials, and supplies to be used at oil and gas work sites shall be stockpiled prior to or after the period of May 20 through July 20 to minimize road traffic

during that period.

4. Aircraft use shall be restricted in areas where caribou are present from May 20 through July 20 unless doing so endangers human life or violates safe flying practices. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the authorized officer if resulting disturbance is determined to be unacceptable. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

5. Aircraft shall maintain a minimum height of 1,000 feet above ground level (except for takeoffs and landings) from May 20 through July 20, unless doing so endangers human life or violates safe flying practices. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Marcia Rickey](#)
To: [Hayes, Miriam \(Nicole\)](#); [Cindy Hamfler](#)
Cc: [Wendy Loya](#)
Subject: Re: [EXTERNAL] ArcGIS Pro data from FWS for Alternatives
Date: Thursday, July 12, 2018 1:32:38 PM
Attachments: [toFWS_Loya_20180712.zip](#)

Hi Wendy,

Attached please see the oil and gas potential data used on alternatives data verify maps. Let me know if you have any problems. (And Wendy thanks for having Paul call me regarding file format of your data. I also talked to Cindy and while I don't have access to ArcPro she does).
thanks, Marcia

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.
3775 Iris Avenue, Suite 1A
Boulder, CO 80301
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From: Hayes, Miriam (Nicole) <mnhayes@blm.gov>
Sent: Thursday, July 12, 2018 1:06:50 PM
To: Marcia Rickey; Cindy Hamfler
Cc: Wendy Loya
Subject: Re: [EXTERNAL] ArcGIS Pro data from FWS for Alternatives

Marcia or Cindy, can you send the data for mapping the hydrocarbon potential areas to Wendy please?

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

On Thu, Jul 12, 2018 at 9:48 AM, Marcia Rickey <marcia.rickey@empsi.com> wrote:

Hi Wendy,

Would you be able to re-save the stipulations sent in ArcGIS Pro format as a **map package** and re-send?

Thanks very much,

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.

[3775 Iris Avenue, Suite 1A](#)

Boulder, CO 80301

tel: 303-447-7160 fax: 866-625-0707

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From: Wendy Loya [mailto:wendy_loya@fws.gov]

Sent: Thursday, July 12, 2018 7:54 AM

To: Nicole Hayes <mnhayes@blm.gov>; Kate Krebs <kate.krebs@empssi.com>; Chad Ricklefs <chad.ricklefs@empssi.com>; Amy Lewis <amy.lewis@empssi.com>

Subject: ArcGIS Pro data from FWS for Alternatives

Hi Nicole, Kate, Amy and Chad,

This is a link to the GIS data, in ArcGIS Pro format, that helps describe the stipulations put forth in the Alternatives workshop. For rivers, there may be several choices, but perhaps not all choices made. Feel free to share with BLM and EMPSi GIS team members.

<https://drive.google.com/file/d/1I09vmtreBw3sytpUpirLd7bi2EY6KhE3/view?usp=sharing>

Please contact me if you have any questions. I'll work on the other action items Kate sent this morning as well as a few other loose ends in other stipulations/bmps that we wanted to have our experts weigh in on. Those include the air quality one (working with Alan and our AQ people in CO), adding observer language to the snow depth/density monitoring and maybe a few other things. Hope to have edits and updates on significant ones out by noon, but we'll see!

Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Paul Leonard](#)
Subject: FW: [EXTERNAL] ArcGIS Pro data from FWS for Alternatives
Date: Thursday, July 12, 2018 1:34:00 PM
Attachments: [toFWS_Loya_20180712.zip](#)

Hi Paul,
Thanks for working with BLM/Marcia on the file transfer.

Here is an important data layer to add to our files, can you add to the Geopdf?

Dr. Wendy M. Loya,
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Office of Science Applications, US Fish and Wildlife Service
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From: Marcia Rickey <marcia.rickey@empsi.com>
Sent: Thursday, July 12, 2018 11:30 AM
To: Hayes, Miriam (Nicole) <mnhayes@blm.gov>; Cindy Hamfler <chamfler@blm.gov>
Cc: Wendy Loya <wendy_loya@fws.gov>
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Hi Wendy,
Attached please see the oil and gas potential data used on alternatives data verify maps. Let me know if you have any problems. (And Wendy thanks for having Paul call me regarding file format of your data. I also talked to Cindy and while I don't have access to ArcPro she does).
thanks, Marcia

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.
3775 Iris Avenue, Suite 1A
Boulder, CO 80301
tel: 303-447-7160 fax: 866-625-0707
www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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Marcia or Cindy, can you send the data for mapping the hydrocarbon potential areas to Wendy please?

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

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Thanks very much,

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Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Collins, Catherine](#)
To: [Wendy Loya](#)
Cc: [Tim Allen](#); [Angela Matz](#); [Kenneth \(Alan\) Peck](#)
Subject: Re: Air quality BMP
Date: Thursday, July 12, 2018 2:01:12 PM
Attachments: [image001.png](#)
[Air Quality Comments - 1002 Coast Plain for Alternatives Development Workshop July 12 ,2018.docx](#)

Wendy,

Thank you for talking with us this morning. We have edited the version that you provided. Please let us know if you need anything else.

Catherine Collins, Environmental Engineer
U.S. Fish and Wildlife Service
Branch of Air and Water Quality Resources
7333 W. Jefferson Ave., Suite 375
Lakewood, CO 80235-2034
303-914-3807
(303) 969-5444 fax
Catherine_Collins@fws.gov

On Tue, Jul 10, 2018 at 10:38 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Tim, Catherine and Angela,

We are discussing the following BMP and need your input. The suggestion is being made that bullet point e (e.) is redundant with the MOU and should be removed. An alternate suggestion was to remove Sensitive Class II, but we would only do that if we could pinpoint another authority to achieve similar air quality protection.

Alan will be in touch as the BLM expert on this, and FWS will take recommended edits, if any, and incorporate them into our recommended stipulations.

Thank you,

Wendy

A-10 Best Management Practice

Objective: Prevent unnecessary or undue degradation of **the air and lands** and protect health.

Requirement/Standard: This measure includes the following elements:

- a. Prior to initiation of a NEPA analysis for an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source (hereafter project), the authorizing officer (**BLM**) may require the project proponent to provide a minimum of one year of baseline ambient air monitoring data for any pollutant(s) of concern as determined by the **authorized officer** if no representative air monitoring data are available for the project area, or existing representative ambient air monitoring data are insufficient, incomplete, or do not meet minimum air monitoring standards set by the Alaska DEC or the EPA. If the **authorized officer** determines that baseline monitoring is required, this pre-analysis data must meet Alaska DEC and EPA air monitoring standards, and cover the year immediately prior to the submittal. Pre-project monitoring may not be appropriate where the life of the project is less than one year.
- b. The **authorized officer** may require monitoring for the life of the project depending on the magnitude of potential air emissions from the project, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within or proximity to a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project.
- c. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the project proponent shall prepare (and submit for **BLM** approval by **the authorized officer**) an emissions inventory that includes quantified emissions of regulated air pollutants from all direct and indirect sources related to the proposed project, including reasonably foreseeable air pollutant emissions of criteria air pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases estimated for each year for the life of the project. The **BLM authorized officer** will use this estimated emissions inventory to identify pollutants of concern and to determine the appropriate level of air analysis to be conducted for the proposed project.
- d. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the **BLM authorized officer** may require the proponent to provide an emissions reduction plan that includes a detailed description of operator committed measures to reduce project related air pollutant emissions including, but not limited to greenhouse gases, **mercury and other heavy metals**, and fugitive dust.
- e. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the authorized officer may require air quality modeling for purposes of analyzing project direct,

indirect or cumulative impacts to air quality. The **BLM-authorized officer** may require air quality modeling depending on the magnitude of potential air emissions from the project or activity, duration of the proposed action, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project. The **BLM-authorized officer** will determine the information required for a project specific modeling analysis through the development of a modeling protocol for each analysis. The authorized officer will consult with the **US Fish and Wildlife Service** and other appropriate federal, State, and/or local agencies regarding modeling to inform his/her modeling decision and avoid duplication of effort. The modeling shall compare predicted impacts to all applicable local, State, and federal air quality standards and increments, as well as other scientifically defensible significance thresholds (such as impacts to air quality related values, incremental cancer risks, etc.).

f. The **BLM-authorized officer** may require air quality mitigation measures and strategies within its authority (and in consultation with local, state, federal, and tribal agencies with responsibility for managing air resources) in addition to regulatory requirements and proponent committed emission reduction measures, and for emission sources not otherwise regulated by Alaska DEC or EPA, if the air quality analysis shows potential future impacts to NAAQS or AAAQS or impacts above specific levels of concern for air quality related values (AQRVs).

g. If ambient air monitoring indicates that project-related emissions are causing or contributing to impacts that would cause unnecessary or undue degradation of the lands, cause exceedances of NAAQS, or fail to protect health (either directly or through use of subsistence resources), the authorized officer may require changes in activities at any time to reduce these emissions to comply with the NAAQS and/or minimize impacts to AQRVs. Within the scope of BLM's authority, ~~the BLM~~ the **authorized officer** may require additional emission control strategies to minimize or reduce impacts to air quality.

h. ~~(Alternative B-2 only)~~ Publicly available reports on air quality baseline monitoring, emissions inventory, and modeling results developed in conformance with this best management procedure shall be provided by the project proponent to the North Slope Borough and to local communities and tribes in a timely manner.

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Allen, Tim](#)
To: [Collins, Catherine](#)
Cc: [Wendy Loya](#); [Angela Matz](#); [Kenneth \(Alan\) Peck](#)
Subject: Re: Air quality BMP
Date: Thursday, July 12, 2018 2:13:58 PM
Attachments: [image001.png](#)

Wendy,

To highlight a little, what was e is now f. You'll notice quite a change but this one is the most important change from the original...

b5-DP
[Redacted]

My opinion: b5-DP
[Redacted]

Tim/Catherine

On Thu, Jul 12, 2018 at 2:01 PM, Collins, Catherine <catherine_collins@fws.gov> wrote:
Wendy,

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Catherine Collins, Environmental Engineer
U.S. Fish and Wildlife Service
Branch of Air and Water Quality Resources
7333 W. Jefferson Ave., Suite 375
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Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Tim Allen

U.S. Fish & Wildlife Service

(303) 914-3802

From: [Leonard, Paul](#)
To: [Marcia Rickey](#); [Marcia Rickey](#)
Cc: [Wendy Loya](#)
Subject: Re: FW: [EXTERNAL] ArcGIS Pro data from FWS for Alternatives
Date: Thursday, July 12, 2018 2:54:26 PM

Hi Marcia,

Please find the attached geodatabase that should be compatible for ArcGIS Desktop > 10.0

Cheers,
Paul

<https://drive.google.com/file/d/1UqmyloZe9PB6RiwRym-ggeUawQC2QfhH/view?usp=sharing>

From: Marcia Rickey <marcia.rickey@empci.com>
Sent: Thursday, July 12, 2018 9:49 AM
To: wendy_loya@fws.gov
Cc: Hayes, Miriam (Nicole) <mnhayes@blm.gov>; Chad Ricklefs <chad.ricklefs@empci.com>; Kate Krebs <kate.krebs@empci.com>
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--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

From: [Leonard, Paul](#)
To: [Wendy Loya](#)
Subject: Re: FW: [EXTERNAL] ArcGIS Pro data from FWS for Alternatives
Date: Thursday, July 12, 2018 3:31:35 PM
Attachments: [Capture.PNG](#)

The 'All' map in google drive has been updated with the estimates for oil layer you sent. You can use the same link but here it is again: <https://drive.google.com/file/d/141Lpk-yQMgf0lzDtsuhocqJDvhY294I/view?usp=sharing>

For your own edification: In order to select which layers are shown by default when you open a geopdf:

This is done inside Adobe: Right Click Any layer and change its default status to 'OFF' and then save - please see screenshot

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Bureau of Land Management

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Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

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To: [Wendy Loya](#)
Cc: [Nicole Hayes](#); [Amy Lewis](#); kate.krebs@emp.si.com; [Chad Ricklefs](#); [Kenneth \(Alan\) Peck](#)
Subject: Re: AQ BMP A9 and A10
Date: Thursday, July 12, 2018 3:32:50 PM

Thank you !!!

On Thu, Jul 12, 2018 at 3:21 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Nicole,

Attached are possible edits to the AQ section that capture Alan's verbal recommendations on fuel sources, and try to address concerns about the Scenic Class II category. It is my understanding that what is described in the MOU and original language is all based on existing NEPA requirements, and attempts to streamline the process. Of course I rely on experts for that guidance rather than experience.

The attached language for A-10 would be what is recommended if the Leasing EIS does NOT do air quality analyses. However, as I mentioned, we have staff in FWS that can help with an analysis for the EIS on a rapid timeline with access to the RFDS. So we look forward to feedback on that.

Thanks!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Tim Allen
U.S. Fish & Wildlife Service
(303) 914-3802

From: [Berendzen, Steve](#)
To: [Stephen Arthur](#)
Cc: [Joanna Fox](#); [Loya, Wendy](#)
Subject: Fwd: FW: [EXTERNAL] Core Caribou Areas
Date: Thursday, July 12, 2018 4:03:54 PM

Steve,

Do you know when the Canadian officials who are in control of PCH collar info might be able to release info such as annual calving range maps to BLM or others? If you could check with appropriate representatives for feedback that would go through Wendy to BLM, that would be appreciated. Does Brian Lawhead have any additional influence on this process in any way? If so, you might try going through him, otherwise, whatever channels you think would be best.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Wendy Loya** <wendy_loya@fws.gov>
Date: Thu, Jul 12, 2018 at 8:11 AM
Subject: FW: [EXTERNAL] Core Caribou Areas
To: Steve Berendzen <steve_berendzen@fws.gov>

Hi Steve,

Can you talk with Steve Arthur, who can maybe talk with Brian at ABR, about how to share the maps from Canada/Mike Sutor, or other similar data that we relied on in supporting our caribou use areas? See emails below, and [send me](#) any info for a response to BLM. In the end, it is BLM's responsibility to get these best available data from Canada, since we don't have the data ourselves.

Lots of loose ends this morning!

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

0000008546

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Hayes, Miriam (Nicole) <mnhayes@blm.gov>

Sent: Thursday, July 12, 2018 8:04 AM

To: Wendy Loya <wendy_loya@fws.gov>

Subject: Fwd: [EXTERNAL] Core Caribou Areas

Hi Wendy,

The NSB is looking for this information. Are you able to provide anything to them?

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

[222 W. 7th Avenue #13](#)

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

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

From: Kevin S. Fisher <Kevin.Fisher@north-slope.org>

Date: Thu, Jul 12, 2018 at 7:46 AM

Subject: Re: [EXTERNAL] Core Caribou Areas

To: "Hayes, Miriam (Nicole)" <mnhayes@blm.gov>

Good morning Nicole,

I was interested in the porcupine Caribou herd maps. Also, I would like the map of the 1002 area detailing the high, medium and low potential resource areas.

0000008547

Should I email FWS for these maps?

Thanks,

Kevin

Sent from my iPhone

On Jul 12, 2018, at 7:02 AM, Hayes, Miriam (Nicole) <mnhayes@blm.gov> wrote:

The maps of the Porcupine Caribou Herd? Or Central? We have the data and maps for Central, FWS is the one that has the data for Porcupine (we are in the process of trying to obtain).

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

[222 W. 7th Avenue #13](#)

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

On Wed, Jul 11, 2018 at 4:39 PM, Kevin S. Fisher <Kevin.Fisher@north-slope.org> wrote:

Hello Nicole,

Can you send me (or direct me to) the Caribou collar monitoring study we previewed at the workshop?

Thanks,

Kevin Fisher

| Sent from my iPhone

From: [Wendy Loya](#)
To: [Nicole Hayes](#)
Subject: river buffers with legend
Date: Thursday, July 12, 2018 4:04:00 PM
Attachments: [Rivers.pdf](#)

attached

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Berendzen, Steve](#)
To: [Loya, Wendy](#)
Subject: Fwd: [EXTERNAL] Porcupine Caribou Herd Map
Date: Thursday, July 12, 2018 4:30:20 PM

Wendy, I should have copied you on my response to Kevin as well as the message to Steve. But we'll forward anything in to you that might avail itself in support of this.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Berendzen, Steve** <steve_berendzen@fws.gov>
Date: Thu, Jul 12, 2018 at 2:13 PM
Subject: Fwd: [EXTERNAL] Porcupine Caribou Herd Map
To: Stephen Arthur <stephen_arthur@fws.gov>
Cc: Joanna Fox <joanna_fox@fws.gov>

Steve, same request that Wendy forwarded, but sent directly to me. He's also asking about the Central Arctic herd, and if we have info on their use of the 1002 that is portrayed as maps overlaying the 1002. If we have those, please let me know and I'll figure out if or how we transfer to them (likely through BLM first)

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Berendzen, Steve** <steve_berendzen@fws.gov>
Date: Thu, Jul 12, 2018 at 2:10 PM
Subject: Re: [EXTERNAL] Porcupine Caribou Herd Map
To: "Kevin S. Fisher" <Kevin.Fisher@north-slope.org>

Kevin,

Thanks for the followup email - it was nice working and visiting with you. The radio collar maps and data have not been released officially yet - as far as I understand, but we're looking into getting the authority to share with collaborators. I don't know what we have for the Central Arctic Herd - we primarily focus on the Porcupine Herd, but I'll inquire into that.

The O&G resource map was new to me and the first time I saw it portrayed that way - I don't know where you might get a copy of that?

I look forward to working with you on polar bear viewing management issues in the future and we'll hopefully be meeting again in the relatively near future!

Steve Berendzen

0000008551

Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 8:13 AM, Kevin S. Fisher <Kevin.Fisher@north-slope.org> wrote:

Hello Mr. Berendzen,

It was nice meeting you at the alternatives workshop. I wanted to ask, are you able to provide me with any of the radio collared data/maps for the porcupine Caribou herd, and also Central Arctic Herd? This would be quite useful for discussing the meeting with my superiors.

Also do you have the map of the 1002 area with the high, medium and low resource areas? I can find roughly similar material online, but not the exact map presented.

Thank you,

Kevin Fisher

Sent from my iPhone

0000008552

From: [Wendy Loya](#)
To: [Steve Berendzen](#)
Subject: RE: [EXTERNAL] Porcupine Caribou Herd Map
Date: Thursday, July 12, 2018 4:39:00 PM

Sounds good, thanks for help on this!

It is not our job to provide data that BLM has, which is the Central Arctic Herd, so hopefully Nicole did that.

Nicole can provide the oil potential map, and any other data that anyone might come to us for but that BLM hosted. We may get more requests since we led the conversation and called data up in support.

Thanks!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Berendzen, Steve <steve_berendzen@fws.gov>
Sent: Thursday, July 12, 2018 2:30 PM
To: Loya, Wendy <wendy_loya@fws.gov>
Subject: Fwd: [EXTERNAL] Porcupine Caribou Herd Map

Wendy, I should have copied you on my response to Kevin as well as the message to Steve. But we'll forward anything in to you that might avail itself in support of this.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Berendzen, Steve** <steve_berendzen@fws.gov>
Date: Thu, Jul 12, 2018 at 2:13 PM
Subject: Fwd: [EXTERNAL] Porcupine Caribou Herd Map
To: Stephen Arthur <stephen_arthur@fws.gov>
Cc: Joanna Fox <joanna_fox@fws.gov>

Steve, same request that Wendy forwarded, but sent directly to me. He's also asking about the Central Arctic herd, and if we have info on their use of the 1002 that is portrayed as maps overlaying the 1002. If we have those, please let me know and I'll figure out if or how we transfer to them (likely through BLM first)

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

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

From: **Berendzen, Steve** <steve_berendzen@fws.gov>
Date: Thu, Jul 12, 2018 at 2:10 PM
Subject: Re: [EXTERNAL] Porcupine Caribou Herd Map
To: "Kevin S. Fisher" <Kevin.Fisher@north-slope.org>

Kevin,

Thanks for the followup email - it was nice working and visiting with you. The radio collar maps and data have not been released officially yet - as far as I understand, but we're looking into getting the authority to share with collaborators. I don't know what we have for the Central Arctic Herd - we primarily focus on the Porcupine Herd, but I'll inquire into that.

The O&G resource map was new to me and the first time I saw it portrayed that way - I don't know where you might get a copy of that?

I look forward to working with you on polar bear viewing management issues in the future and we'll hopefully be meeting again in the relatively near future!

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 8:13 AM, Kevin S. Fisher <Kevin.Fisher@north-slope.org> wrote:

Hello Mr. Berendzen,

It was nice meeting you at the alternatives workshop. I wanted to ask, are you able to provide me with any of the radio collared data/maps for the porcupine Caribou herd, and also Central Arctic Herd? This would be quite useful for discussing the meeting with my superiors.

Also do you have the map of the 1002 area with the high, medium and low resource areas? I can find roughly similar material online, but not the exact map presented.

Thank you,

Kevin Fisher

Sent from my iPhone

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Steve Berendzen](#)
Subject: Draft language for snowfences, seismic monitor/observer
Date: Thursday, July 12, 2018 5:47:00 PM

Please let me know if what you think of the language below intended to address the potential use of snowfences and how to indicate that we may have staff or a 3rd party contractor working on behalf of the FWS/BLM as an observer during seismic operations. Definitely open to any suggestions.

b5-DP
[Redacted]

[Redacted]

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Berendzen, Steve](#)
To: [Kevin S. Fisher](#)
Cc: [Loya, Wendy](#)
Subject: Re: [EXTERNAL] Porcupine Caribou Herd Map
Date: Thursday, July 12, 2018 5:49:17 PM

Kevin,

I learned from our biologist that the Canadian data for the PCH will be shared with BLM when they get their agreement finalized. We don't maintain data on the Central Arctic Herd - that is maintained by the State ADF&G, but BLM should have that available to them. The most direct way to get data on both these herds is likely through BLM.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 8:13 AM, Kevin S. Fisher <Kevin.Fisher@north-slope.org> wrote:

Hello Mr. Berendzen,

It was nice meeting you at the alternatives workshop. I wanted to ask, are you able to provide me with any of the radio collared data/maps for the porcupine Caribou herd, and also Central Arctic Herd? This would be quite useful for discussing the meeting with my superiors.

Also do you have the map of the 1002 area with the high, medium and low resource areas? I can find roughly similar material online, but not the exact map presented.

Thank you,

Kevin Fisher

Sent from my iPhone

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Steve Berendzen](#)
Subject: RE: Draft language for snowfences, seismic monitor/observer
Date: Thursday, July 12, 2018 6:21:00 PM

Excellent!

b5-DP

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Colligan, Mary <mary_colligan@fws.gov>
Sent: Thursday, July 12, 2018 4:16 PM
To: Berendzen, Steve <steve_berendzen@fws.gov>
Cc: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Draft language for snowfences, seismic monitor/observer

Looks good - the only other question I would have is whether on

b5-DP

On Thu, Jul 12, 2018 at 4:06 PM, Berendzen, Steve <steve_berendzen@fws.gov> wrote:

Wendy,

b5-DP

Please let me know if you want to discuss.

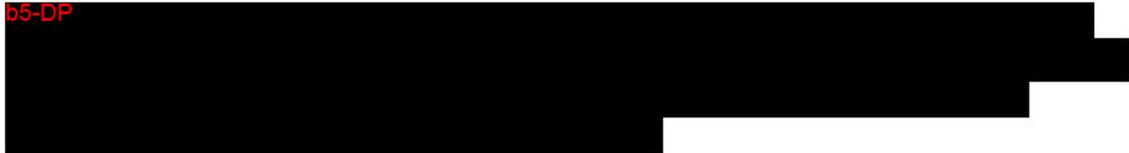
Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 3:47 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

0000008557

Please let me know if what you think of the language below intended to address the potential use of snowfences and how to indicate that we may have staff or a 3rd party contractor working on behalf of the FWS/BLM as an observer during seismic operations. Definitely open to any suggestions.

b5-DP



Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Berendzen, Steve](#)
To: [Colligan, Mary](#)
Cc: [Wendy Loya](#)
Subject: Re: Draft language for snowfences, seismic monitor/observer
Date: Thursday, July 12, 2018 6:22:34 PM

Good catch, Mary - my vote is **b5-DP** [REDACTED]

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 4:15 PM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Looks good - the only other question I would have is whether on **b5-DP** [REDACTED]

On Thu, Jul 12, 2018 at 4:06 PM, Berendzen, Steve <steve_berendzen@fws.gov> wrote:
Wendy,

b5-DP [REDACTED]

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 12, 2018 at 3:47 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Please let me know if what you think of the language below intended to address the potential use of snowfences and how to indicate that we may have staff or a 3rd party contractor working on behalf of the FWS/BLM as an observer during seismic operations. Definitely open to any suggestions.

b5-DP [REDACTED]

b5-DP

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

[1011 E. Tudor Road](#), MS-361

Anchorage, AK 99503

907-786-3505

cell: 907-223-5945

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Can you confirm this is the case - I closed the chat
Date: Thursday, July 12, 2018 6:42:56 PM

Springs/aufeis NSO under B and following river/stream buffer on D?

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

From: [Wendy Loya](#)
To: ["Kate Krebs"](#)
Cc: [Miriam \(Nicole\) Hayes](#); ["Chad Ricklefs"](#); ["Amy Lewis"](#)
Subject: Response: USFWS Action Items
Date: Thursday, July 12, 2018 7:09:00 PM
Attachments: [K1C Springs revised 071218.docx](#)
[C-2 Snow depth fence monitor revised 071218.docx](#)
[CAH productivity.pdf](#)
[PCH summary.pdf](#)
[K5a and c caribou revised 071218.docx](#)

Hi Kate,

Attached are our edits to K-1C. We have removed the no-leasing stipulation and have asked for only No surface occupancy at 3,4 and 1 mi around respective springs, and 1 mi around aufeis. Updated K1C for springs with revised study language and NSO buffers.

C-2 is revised for snowfences and to allow for agency personnel or their representative(s) to go out with seismic operators as monitors

K5a: attempt to clarify numbers. Original BLM language was vague, and that may have allowed authorized officer some flexibility. We are comfortable with either the original or our revision for the DEIS.

K5c: still draft, attempt to reduce density in a meaningful way while allowing development in each township area. Need to work with Rob at BLM once RFDS is available.

Have requested Casey Burns follow up on USGS ACP bird survey data as he is aware of it and that is his section.

Attaching calving success data. The attached tables show estimates of productivity (based on calf:cow rations in late June) for both herds.

May be other small edits as we continue to go over partner suggested revisions with our experts.

Thanks you guys!!!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Kate Krebs <kate.krebs@empsi.com>
Sent: Thursday, July 12, 2018 7:15 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Hayes, Miriam (Nicole) <mnhayes@blm.gov>; Chad Ricklefs <chad.ricklefs@empsi.com>; Amy

Lewis <amy.lewis@empsi.com>

Subject: [EXTERNAL] USFWS Action Items

Wendy:

Thank you so much for your participation this week. I think I speak for the BLM when I say that this week would not have gone as well if USFWS had not put such thought into the alternatives in advance of the meeting.

I have the following action items for you/USFWS:

- Update part a of Stip K-1c (springs/aufeis) because it would require drilling.
- Springs/Aufeis (K1c): FWS doesn't have a good understanding of groundwater and how to protect. Where is ice chip harvesting dealt with? Tamarik and Okerokavik are both located in high potential area. FWS will think more about this with their hydrology specialists.
- Stip K-5a (caribou summer habitat):
 - Part b: Define significant
 - Part 2: one part uses 10 or more caribou, then goes on to say "a large number of caribou". Can there be consistency in using numbers versus more generic language
- Stip K-5c (post-calving): Update 0.6% if there is something more appropriate
- Birds: FWS asked to look to new USGS breeding bird maps to update this data shown on current map; suggests there are four species that use the Refuge more than others (jaegers, etc) (FWS TO PROVIDE?)
- Caribou: FWS might have data on calving success rates to share
- FWS: Wendy is drafting BMP re. snow fences

Kate Krebs

EMPSi Environmental Management and Planning Solutions, Inc.

Please note our new street address:

3005 Center Green Drive, Suite 205

Boulder, CO 80301

tel: 303-495-3506 main: 303-447-7160 fax: 866-625-0707

www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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From: [Peck, Kenneth \(Alan\)](#)
To: [Wendy Loya](#); [Tim Allen](#); [Catherine Collins](#)
Cc: [Craig Nicholls](#)
Subject: Fwd: BLM response to proposed revisions of air BMPs for alternatives workshop
Date: Thursday, July 12, 2018 9:17:59 PM
Attachments: [BLM response to proposed revisions of air BMPs for alternatives workshop.docx](#)

Wendy, Tim, and Catherine,

Thank you for sharing your agency response regarding suggested changes to the air related BMP A-9 and A-10 in the development of the CPL EIS. Craig Nicholls, BLM air specialist, provided the attached response that I believe is beneficial to share with you as well.

Alan

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

From: **Peck, Kenneth (Alan)** <kpeck@blm.gov>
Date: Thu, Jul 12, 2018 at 7:08 PM
Subject: BLM response to proposed revisions of air BMPs for alternatives workshop
To: Nicole Hayes <mnhayes@blm.gov>
Cc: Amy Lewis <amy.lewis@empsi.com>, kate.krebs@empsi.com, Chad Ricklefs <chad.ricklefs@empsi.com>, Craig Nicholls <cnicholl@blm.gov>, coastalplainAR@empsi.com

Nicole,

Please see Craig Nicholls attached feedback to the air questions / proposed changes related to BMP A-10 raised during the Alternatives Workshop.

Please let Craig and I know if any follow up is needed.

Thanks.

Alan

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

From: **Nicholls, Craig** <cnicholl@blm.gov>
Date: Thu, Jul 12, 2018 at 6:46 PM
Subject: BLM response to proposed revisions of air BMPs for alternatives workshop
To: "Peck, Kenneth" <kpeck@blm.gov>, coastalplainAR@empsi.com

Alan, attached is the final version of my response to the BMP discussions at the alternatives workshop.

I am available all day on Friday, 13 July if you or the meeting attendees have any questions or concerns.

--

Thanks

Craig L. Nicholls
National Air Quality Modeler
USDI-Bureau of Land Management -
National Operations Center
Division of Resource Services: OC-520
Denver Federal Center, Building 50
P.O. Box 25047
Denver, Colorado 80225-0047
303.236.9508 Phone
303.236.1974 Fax
cnicholl@blm.gov

"When a man loves cats, I am his friend and comrade, without further introduction" –
Mark Twain



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--

Alan Peck
Soil, Water and Air Program Lead
BLM State Office
222 W 7th Ave. #13
Anchorage, AK 99513
Desk - (907) 271-4411
Cell - (907) 202-0796

--

Alan Peck
Soil, Water and Air Program Lead
BLM State Office
222 W 7th Ave. #13
Anchorage, AK 99513
Desk - (907) 271-4411
Cell - (907) 202-0796

From: [Stephen Arthur](#)
To: [Wendy Loya](#)
Subject: Re: for review (easy)
Date: Friday, July 13, 2018 10:31:22 AM

That looks fine to me.

Sent from my iPad

On Jul 12, 2018, at 4:56 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Make your final edits ☺

K-5a Lease Stipulation/Best Management Practice –Caribou Summer Habitat

c. Heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended from no later than May 20 through no earlier than July 20, unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20 or if they remain in the area in significant numbers (greater than approximately 10% of the estimated calving cow population or 1,000 during insect-relief periods) past July 20, major construction activities will be suspended. The lessee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival and/or late departure. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.

a. Temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou (group of approximately 100 or more) appears to be imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Arthur, Stephen <stephen_arthur@fws.gov>
Sent: Thursday, July 12, 2018 10:58 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: tightening Caribou stipulation language

Wendy,

It is true that the area on the east side of the Canning River has been used for calving by some CAH in some years but that was when the herd was nearing its maximum size, while the PCH was relatively low and mainly calving in Canada. Even then, the Refuge was on the periphery of the CAH calving range. In any case, the CAH is likely to be far more affected by activities west of the Refuge, between the Canning and Sagavanirktok Rivers, than by what happens within the Refuge.

However, due to the variability in caribou movements and distributions among years, I do think it is worth putting in a BMP that would allow managers to restrict activities that create the greatest disturbance during years when "large" numbers of caribou are in the area, regardless of which herd they belong to. b5-DP

b5-DP

In practice, I think we would consider something like 10% of the calving caribou cows from either herd to be significant, or groups of 1,000 or more caribou during the insect relief season.

The attached tables show estimates of productivity (based on calf:cow ratios in late June) for both herds.

Let me know if you have other questions.

Steve

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist
Arctic National Wildlife Refuge
101 12th Ave., Room 236
Fairbanks, AK 99701
(907)455-1830*

On Thu, Jul 12, 2018 at 8:24 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Steve A,

I have two action items for today if you can please assist: 1) we need to clarify some language in our caribou stipulation after discussion with partners at the workshop this week and 2) Do we have any data to share on calving success rates? I don't remember the full context of the request for #2, so if that is a request that would require work beyond pointing to the latest report from FWS/PCTC or ADFG), then we can find out more.

- Stip K-5a (caribou summer habitat):

Part b: Define significant

- Part 2: one part uses 10 or more caribou, then goes on to say “a large number of caribou”. Can there be consistency in using numbers versus more generic language

Can you please provide your recommended edits to be today, ideally this morning ☺? I think the 10 caribou is reasonable for temporary traffic halt, but what would be the threshold for stopping significant construction activity for calving caribou?

Also, BLM showed Central Arctic Herd data that has them calving on the SW edge near the canning and in our Summer Habitat use area. So the question came up if July 20th was sufficient to protect that herd? We don't want to over-ask on development in the eastern area, but we also want to make sure we aren't causing harm to the Central herd.

Stipulation language as it exists now is below, feel free to move into word if easier.

K-5a Lease Stipulation/Best Management Practice –Caribou Summer Habitat

Note: All lands within the Arctic Refuge Coastal Plain are recognized as habitat of the Porcupine and Central Arctic caribou herds and shall be managed to ensure unhindered movement of caribou through the area.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements through portions the Coastal Plain that are essential for summer use by caribou, including calving and rearing, insect-relief, and migration.

Requirement/Standard: The following standards will be applied to permitted activities:

a. Lessees shall orient infrastructure when laying out oil and gas field developments to avoid impeding caribou migration and to avoid corralling effects. Before authorization of construction of permanent facilities (limited as they may be by restricted surface occupancy areas established in other lease stipulations), the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Porcupine and Central Arctic Caribou herds has been completed within the last 10 years.

c. Heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended from no later than May 20 through no earlier than July 20, unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20 **or**

if they remain in the area in significant numbers past July 20, major construction activities will be suspended. The lessee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival and/or late departure. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.

d. The following ground and air traffic restrictions shall apply in the areas and time periods indicated. Ground traffic restrictions apply to permanent oil and gas-related roads:

1. From May 20 through July 20, traffic speed shall not exceed 15 miles per hour when caribou are within 0.5 mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

2. The lessee or a contractor shall observe caribou movement from May 20 through July 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped:

a. temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.

b. by direction of the authorized officer throughout a defined area for up to four weeks to prevent displacement of calving caribou. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

3. Major equipment, materials, and supplies to be used at oil and gas work sites shall be stockpiled prior to or after the period of May 20 through July 20 to minimize road traffic during that period.

4. Aircraft use shall be restricted in areas where caribou are present from May 20 through July 20 unless doing so endangers human life or violates safe flying practices. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the authorized officer if resulting disturbance is determined to be unacceptable. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

5. Aircraft shall maintain a minimum height of 1,000 feet above ground level (except for takeoffs and landings) from May 20 through July 20, unless doing so endangers human life or violates safe flying practices. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and best

management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

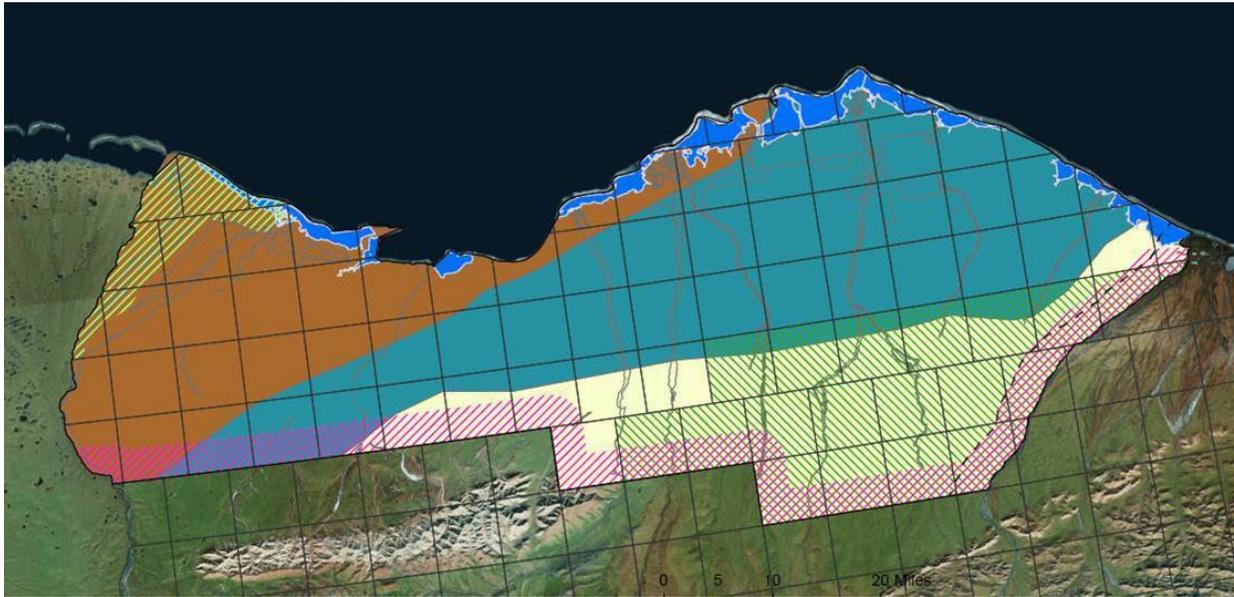
Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Bud Cribley \(bud_cribley@fws.gov\)](#); Sarah Conn; Joanna Fox; Joshua Rose; Paul Leonard
Subject: images for today's meeting
Date: Friday, July 13, 2018 10:54 00 AM

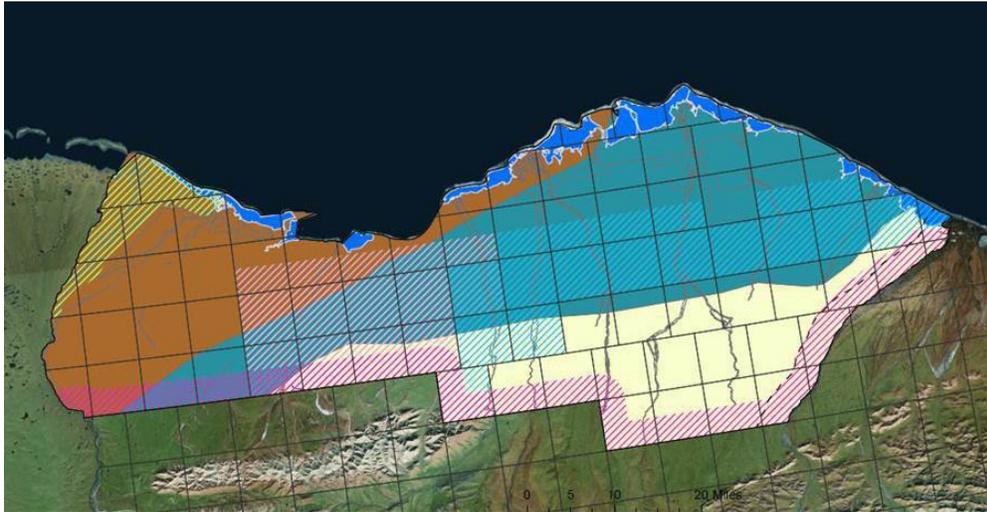
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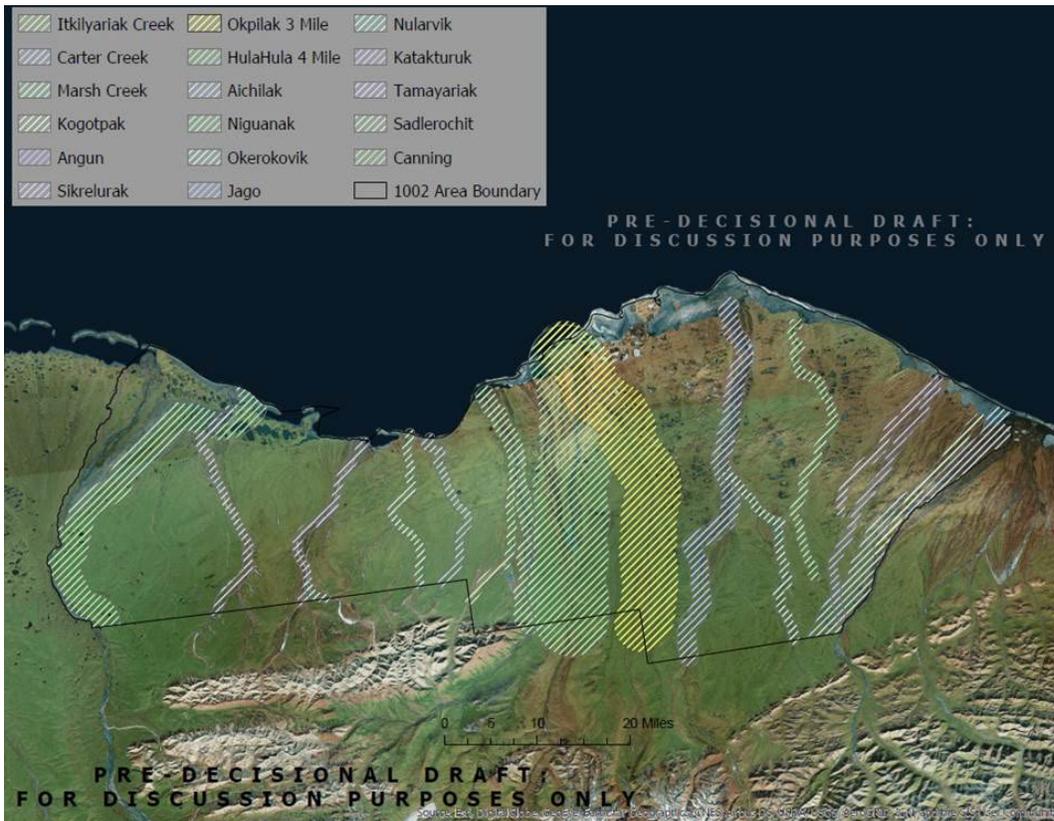
DO NOT FORWARD OR SHARE OUTSIDE 1002 RDT TEAM. Maps can be provided marked **Pre-decisional draft** if you want to share with other fWS staff

Caribou calving recommended no leasing over oil potential layers:



All three caribou stips with oil layers (calving area not striped in this view). I am working with Rob B to better define the pink striped (reduced density) PCH Post-calving/CAH calving area.





Dr. Wendy M. Loya,
 Arctic Program Coordinator
 Office of Science Applications, US Fish and Wildlife Service
 Anchorage, Alaska
 907.786.3532 (office)
 907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Drew Crane](#); [John Trawicki](#); [Steve Berendzen](#); [Joanna Fox](#); [Eric Taylor](#); [Erik Osnas](#); [Carl Johnson](#)
Subject: Request for staff to aid in identifying cumulative impacts actions for leasing EIS
Date: Friday, July 13, 2018 1:20:00 PM

Dear 1002 POCs,

Please send me recommendations for staff in your program that should be included in a request for actions that should be considered in the Leasing EIS cumulative impact analysis. John Martin is our only listed team member, and I am looking for staff that are familiar with actions that might affect the Refuge resources, including across the range of migratory species that use the Refuge. Drew, I sent a request to Sarah Conn just now.

I will send out an email today requesting info and an invitation for a 1 hr meeting on Monday for a discussion among those available. I need to send the list to BLM Tuesday COB.

Thanks!

Cooperating Agencies:

We would like your input on any reasonably foreseeable future actions that you would like to see included as part of the cumulative analysis.

A reasonably foreseeable future action is defined as a project for which there is an existing proposal, a project currently in the NEPA process, or a project to which a commitment of resources (such as funding) has been made.

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Joanna Fox](#)
To: [Wendy Loya](#)
Cc: [Steve Berendzen](#)
Subject: Re: Request for staff to aid in identifying cumulative impacts actions for leasing EIS
Date: Friday, July 13, 2018 2:28:08 PM

Hi Wendy,

Will you please send an invite to the following folks on our staff:

- Josh Rose
- Steve Arthur
- Steve Berendzen
- myself

If you'd like to have someone who can represent subsistence, please consider adding Hollis (though I'm not sure he'll be in). Unfortunately, Jennifer will be out on leave Monday, so Steve and I will do our best to represent recreation. Chris Latty is at the Canning Bird Camp and I'm not sure when he'll make it back, so it would be ideal to have someone else available who can represent birds.

Both Steve Arthur and Josh Rose are unavailable after 2pm Monday, so it would be ideal if this meeting could be scheduled before then.

Thank you,
Joanna

Joanna L. Fox
Deputy Refuge Manager
Arctic National Wildlife Refuge
101 12th Avenue, Room 236
Fairbanks, AK 99701
(907) 456-0549

Follow us on Facebook!
www.facebook.com/arcticnationalwildliferefuge

"Do what you can, with what you have, where you are." -- Theodore Roosevelt

On Fri, Jul 13, 2018 at 11:20 AM Wendy Loya <wendy_loya@fws.gov> wrote:

Dear 1002 POCs,

Please send me recommendations for staff in your program that should be included in a request for actions that should be considered in the Leasing EIS cumulative impact analysis. John Martin is our only listed team member, and I am looking for staff that are familiar with actions that might affect the Refuge resources, including across the range of migratory species that use the Refuge. Drew, I sent a request to Sarah Conn just now.

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Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Crane, Drew](#)
To: [Wendy Loya](#)
Subject: Re: Request for staff to aid in identifying cumulative impacts actions for leasing EIS
Date: Friday, July 13, 2018 4:03:17 PM

Hey Wendy,

You are correct, Sarah is likely the most appropriate person to include on this from FES. She can loop in other folks from her staff if she thinks it is necessary.

Thank you!

Drew Crane
Regional Endangered Species Coordinator
Alaska Region
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
907-786-3323

On Fri, Jul 13, 2018 at 11:20 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Dear 1002 POCs,

Please send me recommendations for staff in your program that should be included in a request for actions that should be considered in the Leasing EIS cumulative impact analysis. John Martin is our only listed team member, and I am looking for staff that are familiar with actions that might affect the Refuge resources, including across the range of migratory species that use the Refuge. Drew, I sent a request to Sarah Conn just now.

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Thanks!

Cooperating Agencies:

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0000008577

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Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Paul Leonard](#)
Subject: current draft snow BMP
Date: Friday, July 13, 2018 4:06:00 PM
Attachments: [C-2 Snow depth fence monitor revised 071218.docx](#)

Here is our current draft under consideration

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Subject: Issue statements
Date: Friday, July 13, 2018 4:59:52 PM
Attachments: [Draft_EA_issue_statements.docx](#)

Wendy,

Attached is our completed draft of issue statements. The 1st half page is information for reviewers and to help clarify how issue statements were developed. Please let me know if you need any clarification on anything.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: FW: Issue statements
Date: Friday, July 13, 2018 5:09:00 PM
Attachments: [Draft_EA_issue_statements.docx](#)

Josh said he sent this, but do you want to look at it?

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Rose, Joshua <joshua_rose@fws.gov>
Sent: Friday, July 13, 2018 3:00 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Issue statements

Wendy,

Attached is our completed draft of issue statements. The 1st half page is information for reviewers and to help clarify how issue statements were developed. Please let me know if you need any clarification on anything.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: RE: Request for staff to aid in identifying cumulative impacts actions for leasing EIS
Date: Friday, July 13, 2018 5:26:00 PM

Should I include John Martin? Tracy or Stephanie?

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>
Sent: Friday, July 13, 2018 2:20 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: Request for staff to aid in identifying cumulative impacts actions for leasing EIS

Sounds like Joanna has several folks from the refuge participating. I will not add anyone else to the list. Please include me on the invite. I just want to know what is expected from the group.

john t.

On Fri, Jul 13, 2018 at 11:20 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Dear 1002 POCs,

Please send me recommendations for staff in your program that should be included in a request for actions that should be considered in the Leasing EIS cumulative impact analysis. John Martin is our only listed team member, and I am looking for staff that are familiar with actions that might affect the Refuge resources, including across the range of migratory species that use the Refuge. Drew, I sent a request to Sarah Conn just now.

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Thanks!

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0000008582

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Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Wendy Loya](#)
To: [Bud Cribley](#)
Subject: RE: images for today's meeting
Date: Monday, July 16, 2018 10:26:00 AM

I am in today, I can chat before 11am. 907-786-3532 if that will work for you!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Bud Cribley <bud_cribley@fws.gov>
Sent: Monday, July 16, 2018 8:18 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: images for today's meeting

Wendy,

Will you be in today?

I missed Friday's coordination call and would like to catch up on how last week's meeting on alternative formulation went.

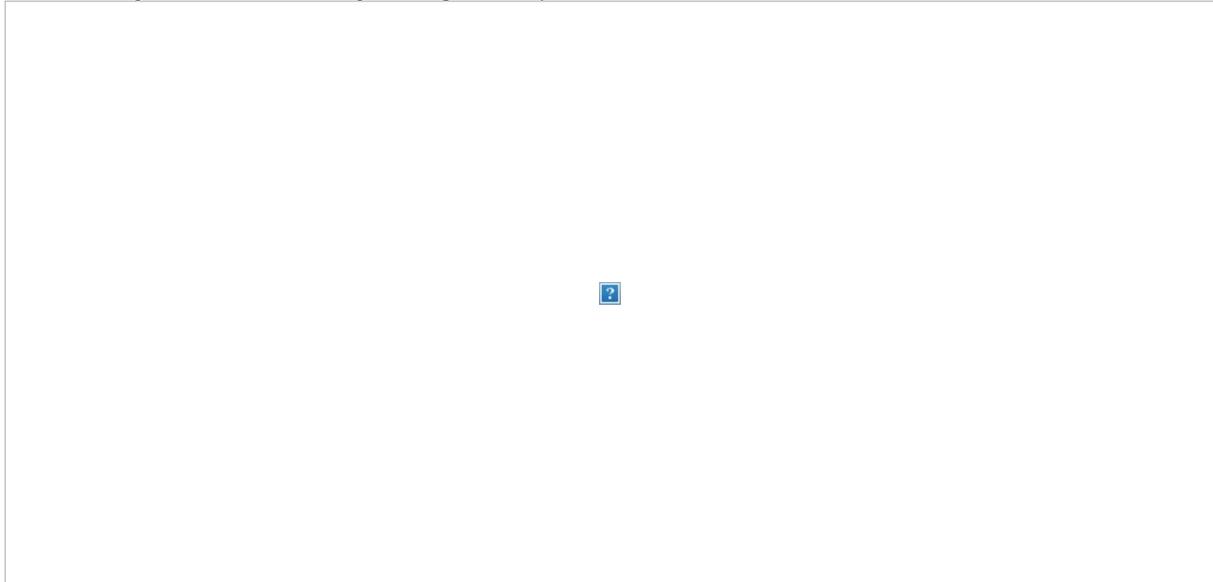
Bud

On Fri, Jul 13, 2018 at 12:54 PM Wendy Loya <wendy_loya@fws.gov> wrote:

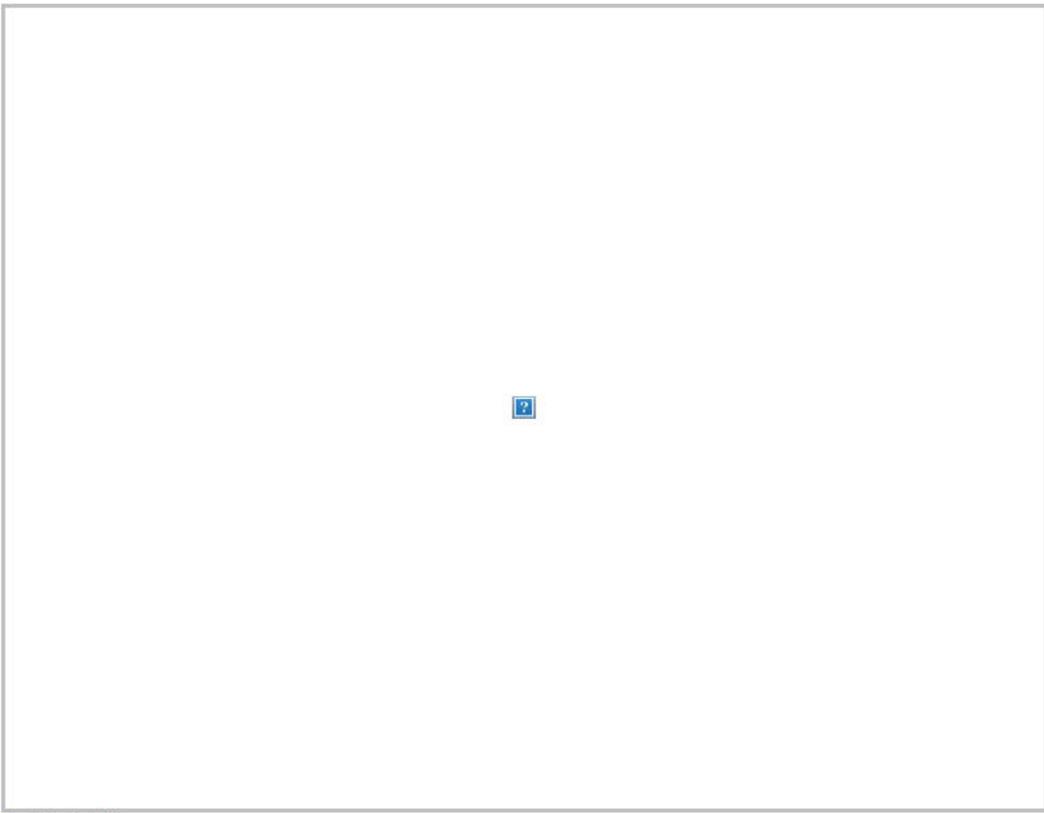
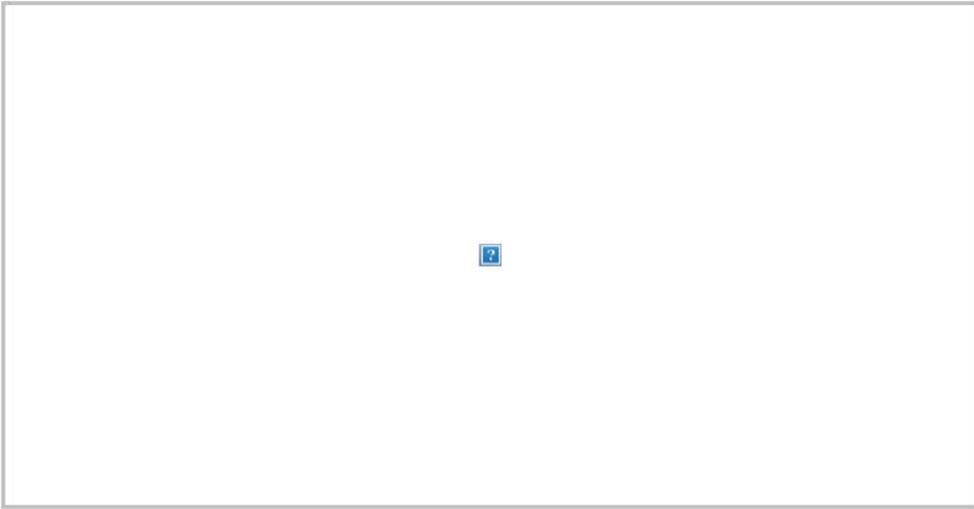
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Caribou calving recommended no leasing over oil potential layers:



All three caribou stips with oil layers (calving area not striped in this view). I am working with Rob B to better define the pink striped (reduced density) PCH Post-calving/CAH calving area.



Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--
Bud C Cribley
Senior Advisor for Energy with the U.S. Fish & Wildlife Service
Office # 202-208-4331
Cell # 907-717-5141
Office # MIB 3341
email: bud_cribley@fws.gov

From: [Peck, Kenneth \(Alan\)](#)
To: [Miriam \(Nicole\) Hayes](#)
Cc: [Chad Ricklefs](#); [Amy Lewis](#); [Kate Krebs](#); [Craig Nicholls](#); [Wendy Loya](#); [Tim Allen](#); [coastalplainAR@empci.com](#)
Subject: Fwd: AQ BMP A9 and A10
Date: Monday, July 16, 2018 10:26:21 AM

Nicole,

Craig has added his concurrence below to Tim's clarification.

Alan

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

From: **Nicholls, Craig** <cnicholl@blm.gov>
Date: Mon, Jul 16, 2018 at 8:01 AM
Subject: Re: AQ BMP A9 and A10
To: "Peck, Kenneth (Alan)" <kpeck@blm.gov>, coastalplainAR@empci.com

Alan, this sounds good to me. I concur with Tim's clarifications and have nothing further to add.

On Fri, Jul 13, 2018 at 3:38 PM, Peck, Kenneth (Alan) <kpeck@blm.gov> wrote:

Craig,

Tim sent this email today to expand on Wendy's email from yesterday. I think it is useful and helps clarify further the points FWS brought up as well as your experience and understanding from a BLM perspective. Please read it and provide me with your perspective.

Thank you.

Alan

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

From: **Allen, Tim** <tim_allen@fws.gov>
Date: Fri, Jul 13, 2018 at 11:50 AM
Subject: Re: AQ BMP A9 and A10
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Nicole Hayes <mnhayes@blm.gov>, Amy Lewis <amy.lewis@empci.com>, Kate Krebs <kate.krebs@empci.com>, Chad Ricklefs <chad.ricklefs@empci.com>, "Kenneth (Alan) Peck" <kpeck@blm.gov>

Hi Everyone,

I thought it might help the conversation if I added a little narrative along with Wendy's lead-in to our A-9, A-10 review.

We made these edits from the original NPR-A language to ensure air quality concerns are addressed at some point. Though it was true that we supported the original language at the time the NPR-A rod was published, it followed a comprehensive evaluation of potential near- and far-field impacts from opening the new lease area. We evaluated direct and

indirect emission potential to human and environmental receptors before the leases became available. New leasee's had less burden to fulfill NEPA evaluation needs due to all of the prior work.

For the AK Coastal Plains, if adequate air quality analysis is not conducted prior to leasing, additional language will be necessary for stronger post-lease stipulations. In the event that full air quality evaluation occurs prior to leasing, the original NPR-A language would likely need less revision.

Another important question has come up. Since language in the NPR-A A-10 reads similar to the Oil/Gas MOU, can we remove the redundant language from the A-10? The answer is no... This is because language in the MOU and in a NEPA ROD serve very different purposes. The MOU identifies agreements between the 5 federal agencies to conduct good NEPA as it relates to air quality. It is only binding on the agencies. The A-10 section describes legal conditions included with a ROD, and is binding on the leasee. To help clarify the difference, we adjusted our suggested A-10 language to avoid sounding like the MOU.

I appreciate everyone's time in considering our A-9/A-10 suggestions.

Thank you,
Tim Allen

On Thu, Jul 12, 2018 at 3:21 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Nicole,

Attached are possible edits to the AQ section that capture Alan's verbal recommendations on fuel sources, and try to address concerns about the Scenic Class II category. It is my understanding that what is described in the MOU and original language is all based on existing NEPA requirements, and attempts to streamline the process. Of course I rely on experts for that guidance rather than experience.

The attached language for A-10 would be what is recommended if the Leasing EIS does NOT do air quality analyses. However, as I mentioned, we have staff in FWS that can help with an analysis for the EIS on a rapid timeline with access to the RFDS. So we look forward to feedback on that.

Thanks!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Tim Allen

U.S. Fish & Wildlife Service

(303) 914-3802

--

Alan Peck

Soil, Water and Air Program Lead

BLM State Office

[222 W 7th Ave. #13](#)

[Anchorage, AK 99513](#)

Desk - (907) 271-4411

Cell - (907) 202-0796

--

Thanks

Craig L. Nicholls

National Air Quality Modeler

USDI-Bureau of Land Management -

National Operations Center

Division of Resource Services: OC-520

Denver Federal Center, Building 50

P.O. Box 25047

Denver, Colorado 80225-0047

303.236.9508 Phone

303.236.1974 Fax

cnicholl@blm.gov

"When a man loves cats, I am his friend and comrade, without further introduction" –
Mark Twain



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Alan Peck
Soil, Water and Air Program Lead
BLM State Office
222 W 7th Ave. #13
Anchorage, AK 99513
Desk - (907) 271-4411
Cell - (907) 202-0796

From: [Wendy Loya](#)
To: [Sara Longan](#)
Subject: NSSI Infrastructure report?
Date: Monday, July 16, 2018 10:35:00 AM

Hi Sara,

You mentioned last week that NSSI had been working on a report or database that might have a description of the types of infrastructure associated with development, and possibly the heights of facilities? I would be grateful for any info we could use to refine the viewshed model to be robust, scientifically based so we can adapt our recommendations if needed. If there is a way to accommodate shorter facilities closer to rivers and maybe reserve the buffers for things that are taller or that produce more noise, I think that would be useful for the 1002 and possibly even NPRA?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Bud Cribley](#)
Subject: RE: images for today's meeting
Date: Monday, July 16, 2018 10:42:00 AM

Sounds good

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Bud Cribley <bud_cribley@fws.gov>
Sent: Monday, July 16, 2018 8:29 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: images for today's meeting

Can I call you in about an hour?

Bud

On Mon, Jul 16, 2018 at 12:26 PM Wendy Loya <wendy_loya@fws.gov> wrote:

I am in today, I can chat before 11am. 907-786-3532 if that will work for you!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Bud Cribley <bud_cribley@fws.gov>
Sent: Monday, July 16, 2018 8:18 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: images for today's meeting

Wendy,

Will you be in today?

I missed Friday's coordination call and would like to catch up on how last week's meeting on alternative formulation went.

Bud

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Dr. Wendy M. Loya,
Arctic Program Coordinator
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Anchorage, Alaska
907.786.3532 (office)
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--

Bud C Cribley
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Office # 202-208-4331
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--

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Senior Advisor for Energy with the U.S. Fish & Wildlife Service
Office # 202-208-4331
Cell # 907-717-5141
Office # MIB 3341
email: bud_cribley@fws.gov

From: [Wendy Loya](#)
To: [John Trawicki](#)
Subject: RE: UPDATED: 1002 Actions for Cumulative Effects Analysis
Date: Monday, July 16, 2018 11:26:00 AM

Please do!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Trawicki, John <john_trawicki@fws.gov>
Sent: Monday, July 16, 2018 9:08 AM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Re: UPDATED: 1002 Actions for Cumulative Effects Analysis

MAY I invite Todd to sit on on this meeting?

2018-07-16 8:32 GMT-08:00 <wendy_loya@fws.gov>:

--

John Trawicki
Water Resources Branch Chief
National Wildlife Refuge System, Alaska
U.S. Fish and Wildlife Service
1011 E. Tudor Road
Anchorage, AK 99503
Work: (907) 786-3474
Mobile: (907) 360-1656

"The single biggest problem with communication is the illusion that it has taken place"
George Bernard Shaw

From: [Bud Cribley](#)
To: [Wendy Loya](#)
Subject: Re: images for today's meeting
Date: Monday, July 16, 2018 1 50:00 PM

Wendy,

I lied to you to

I just looked at the maps from the 1987 1002 Resource Assessment and there are actually 3 development areas. One of them is in the middle of the prime calving habitat.

Sorry for missing leading you, but I think the map still is a good point of reference.

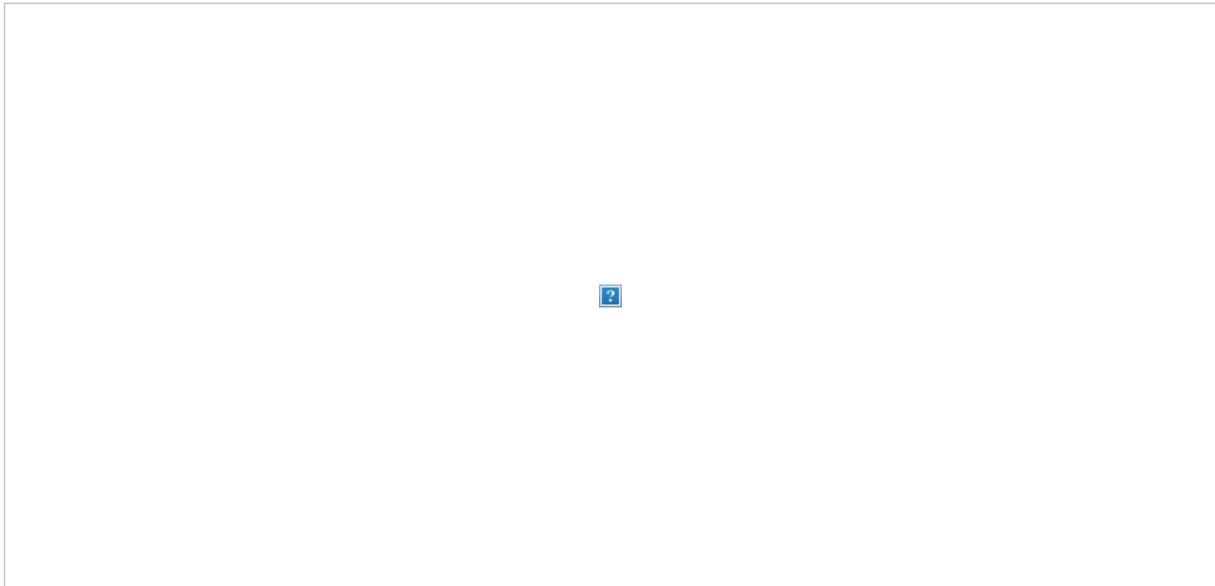
Bud

On Fri, Jul 13, 2018 at 12:54 PM Wendy Loya <wendy_loya@fws.gov> wrote:

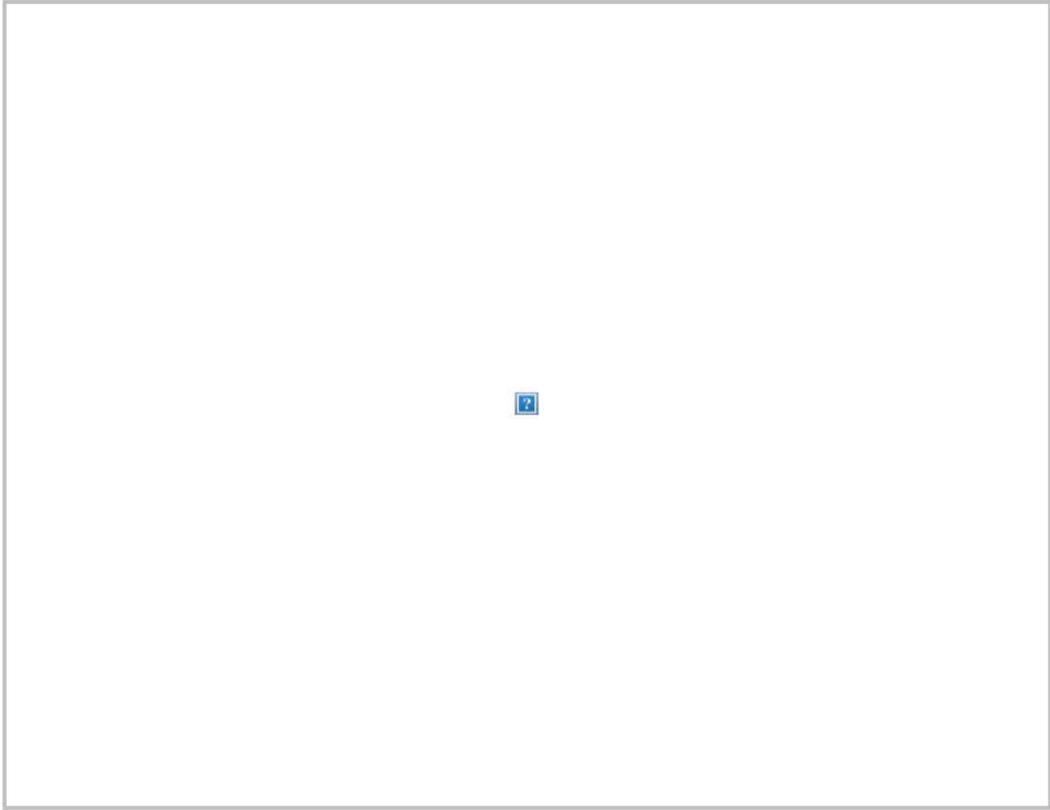
I'll be sharing these images for today's 1002 RDT meeting. I did not have time to figure out technology to share from Mary Smith Conference room, I apologize but it has been a busy week!

DO NOT FORWARD OR SHARE OUTSIDE 1002 RDT TEAM. Maps can be provided marked **Pre-decisional draft** if you want to share with other fWS staff.

Caribou calving recommended no leasing over oil potential layers:



All three caribou stips with oil layers (calving area not striped in this view). I am working with Rob B to better define the pink striped (reduced density) PCH Post-calving/CAH calving area.



Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

Bud C Cribley
Senior Advisor for Energy with the U.S. Fish & Wildlife Service
Office # 202-208-4331
Cell # 907-717-5141
Office # MIB 3341
email: bud_cribley@fws.gov

From: [Wendy Loya](#)
To: [Sara Longan](#)
Subject: RE: NSSI Infrastructure report?
Date: Monday, July 16, 2018 2:02:00 PM

Thank you!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Longan, Sara <slongan@blm.gov>
Sent: Monday, July 16, 2018 11:28 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Miriam Hayes <mnhayes@blm.gov>; Jess Grunblatt <jgrunbla@alaska.edu>
Subject: Re: NSSI Infrastructure report?

Hello Wendy,

Yes, the NSSI project conducted by Jess Grunblatt and ACCS is certainly a work-in-progress. The information is in our Catalog and contains (for now) a GIS dataset that represents maintained roads and developed areas (pads, excavations, villages) within the North Slope region. Our hope is to continuously build out this dataset to include "fixed" NS infrastructure - it is our hope this information can better inform cumulative impacts analyses, among other uses.

<https://northslopescience.org/catalog>

I believe the Point Thomson EIS is a good place to look for the information you are seeking. 5.19.2 is a summary of project components that have an impact on visual aesthetics. In this section, the height of each component is given: the temporary drill rig (180 ft), Comm towers (160 ft), etc. This information, of course, would be a go-by since the height of project components can vary. The PT EIS visual aesthetics section also shares temporal and spatial considerations, which I think are important (e.g., fixed, vs temporary and short-term structures).

<http://www.arlis.org/docs/vol1/E/808730793/808730793v3.pdf>

I hope this helps.

Thanks,
Sara

On Mon, Jul 16, 2018 at 8:35 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Sara,

You mentioned last week that NSSI had been working on a report or database that might have a description of the types of infrastructure associated with development, and possibly

the heights of facilities? I would be grateful for any info we could use to refine the viewshed model to be robust, scientifically based so we can adapt our recommendations if needed. If there is a way to accommodate shorter facilities closer to rivers and maybe reserve the buffers for things that are taller or that produce more noise, I think that would be useful for the 1002 and possibly even NPRA?

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

Sara Longan, PhD
Executive Director
North Slope Science Initiative (NSSI)
907-271-3431

From: [Wendy Loya](#)
To: [Paul Leonard](#)
Subject: FW: NSSI Infrastructure report?
Date: Monday, July 16, 2018 2:03:00 PM

See the 2nd part of Sara's answer for infrastructure stuff ☺

From: Longan, Sara <slongan@blm.gov>
Sent: Monday, July 16, 2018 11:28 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Miriam Hayes <mnhayes@blm.gov>; Jess Grunblatt <jgrunbla@alaska.edu>
Subject: Re: NSSI Infrastructure report?

Hello Wendy,

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Sara

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Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

--

Sara Longan, PhD
Executive Director
North Slope Science Initiative (NSSI)
907-271-3431

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Cc: [Leonard, Paul](#)
Subject: existing & proposed oil & gas projects - Canada east of 1002
Date: Monday, July 16, 2018 2:46:11 PM

Wendy,

This may be more specific than we want right now but here is a link to the Yukon Territory oil and gas website (<http://www.emr.gov.yk.ca/oilandgas/mapsdata.html>). It contains .pdf maps and geospatial information for oil and gas in Canada. It appears the nearest current wells are about 90 miles from the 1002 but there are two lease blocks along the coast with the closest about 30 miles away.. I have CC'ed Paul so he can pull any geospatial info if you need it.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Wendy Loya](#)
To: [Joshua Rose](#)
Subject: RE: Issue statements
Date: Monday, July 16, 2018 4:02:00 PM
Attachments: [Draft_EA_issue_statements_wml_071318.docx](#)

Josh,

A few edits to the issue statements. Have a look and let me know what you think and if you can accept or revise as needed, we can send this on to ARDs.

A few things I felt were not explained well or erroneously, but I had the benefit of being at the presentation. Happy to explain if you feel like I deleted something you or others thought was important.

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Rose, Joshua <joshua_rose@fws.gov>
Sent: Friday, July 13, 2018 3:00 PM
To: Wendy Loya <wendy_loya@fws.gov>
Subject: Issue statements

Wendy,

Attached is our completed draft of issue statements. The 1st half page is information for reviewers and to help clarify how issue statements were developed. Please let me know if you need any clarification on anything.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Subject: Re: Issue statements
Date: Monday, July 16, 2018 7:01:23 PM
Attachments: [Draft_EA_issue_statements_JRose_07162018.docx](#)

Wendy,

Attached is the issue statement document. I have made a few minor edits for your review and replied to a few comments for your consideration. Otherwise looks good.

Thanks,
Josh

On Mon, Jul 16, 2018 at 2:02 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Josh,

A few edits to the issue statements. Have a look and let me know what you think and if you can accept or revise as needed, we can send this on to ARDs.

A few things I felt were not explained well or erroneously, but I had the benefit of being at the presentation. Happy to explain if you feel like I deleted something you or others thought was important.

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: Rose, Joshua <joshua_rose@fws.gov>

Sent: Friday, July 13, 2018 3:00 PM

To: Wendy Loya <wendy_loya@fws.gov>

Subject: Issue statements

Wendy,

Attached is our completed draft of issue statements. The 1st half page is information for reviewers and to help clarify how issue statements were developed. Please let me know if you need any clarification on anything.

Thanks,

Josh

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Joshua Rose

Acting Oil and Gas Coordinator

Arctic National Wildlife Refuge

101 12th Ave., Rm 236

Fairbanks, AK 99701

phone: (907) 456-0409

--

Joshua Rose

Acting Oil and Gas Coordinator

Arctic National Wildlife Refuge

101 12th Ave., Rm 236

Fairbanks, AK 99701

phone: (907) 456-0409

From: [Wendy Loya](#)
To: [Mary Colligan](#); [Mitch Ellis](#); [Eric Taylor](#); [Sara Boario](#)
Cc: [Joshua Rose](#)
Subject: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements
Date: Tuesday, July 17, 2018 11:12:00 AM
Attachments: [Draft EA issue statements_07172018.docx](#)

Dear Mary, Mitch and Eric,

Please review by Thursday 7/19 at 10am and share edits with 1002 ARDs and myself. I will edit and provide final draft to Greg and Karen and deliver to BLM by Friday 7/20 COB.

Attached is the Issue statements prepared by the USFWS for the Arctic National Wildlife Refuge Coastal Plain Seismic Environmental Assessment. These issue statements will be considered by BLM, who is also preparing issue statements based on their experience in NPRA. The final vetted list will be used to guide the Environmental Consequences analysis in the Seismic EA.

Josh Rose (acting oil and gas coordinator for Arctic Refuge) and Sarah Conn led the Seismic EA Interdisciplinary Team in pulling these together, and I have reviewed and made some further edits. Supporting documents, should you desire to consider, are available for you here:

[link to documents](#)

I will bring the surnaming packet for signatures around today.

Thank you!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Diane Ray \(diane_ray@fws.gov\)](mailto:diane_ray@fws.gov)
Subject: help with surnaming packet
Date: Tuesday, July 17, 2018 11:30:00 AM
Attachments: [Note to Reviewer Seismic EA FWS Issue Statements 071718.docx](#)
[Draft EA issue statements 07172018.docx](#)

Hi Diane,

If you have time, can you help me make a purple folder with the two attached items? I have already sent the document for review by email.

Thank you, I will be in by noon and can take it up to Mitch, Mary or Eric.
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Subject: Attachment for discussion today
Date: Tuesday, July 17, 2018 12:11:16 PM
Attachments: [2018_0716_Options for Authorizing MMPA Take of Polar Bears.docx](#)

Wendy,

Please distribute with whoever needs to see it.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: FW: Attachment for discussion today
Date: Tuesday, July 17, 2018 12:19:00 PM
Attachments: [2018_0716_Options_for_Authorizing_MMPA_Take_of_Polar_Bears.docx](#)
Importance: High

Drew,

Please distribute with whoever needs to see it.

Thanks!

Nicole

Nicole Hayes

Project Coordinator

Bureau of Land Management

222 W. 7th Avenue #13

Anchorage, Alaska 99513

Desk: (907) 271-4354

From: [Wendy Loya](#)
To: [Stephen Arthur](#)
Cc: "tvosburgh@blm.gov"
Subject: BLM contact regarding Seismic EA for mammals section
Date: Tuesday, July 17, 2018 12:43:00 PM

Hey Steve,

Tim, the new Dave Yokel/Wildlife Biologist, at BLM Arctic Field Office would like to get in touch with you with regards to the Seismic EA. I am not sure if you are in the field or have just been swamped with the Leasing EIS, but as you probably know we are wrapping up the Issue Statements for identifying the analyses that need to go into the Seismic EA this week, and moving into the Environmental Consequences analyses. Can you please call or email Tim to set up a time to talk?

His contact info is: 907 474-2314 or tvosburgh@blm.gov

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Colligan, Mary](#)
To: [Wendy Loya](#)
Cc: [Mitch Ellis](#); [Eric Taylor](#); [Sara Boario](#); [Joshua Rose](#); [Sarah Conn](#)
Subject: Re: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements
Date: Tuesday, July 17, 2018 4:16:43 PM
Attachments: [Draft EA issue statements_07172018_MAC\(1\).docx](#)

Wendy - I have the purple folder and will sign off on it now and move it on to Eric since Mitch is out today. The format is a little strange, but I understand that is dictated by BLM. I have attached a few minor edits and a couple comments for your consideration. I noted on the routing slip that I send comments electronically and put a hard copy of the attached in the folder.

Thanks,
Mary

On Tue, Jul 17, 2018 at 9:12 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Dear Mary, Mitch and Eric,

Please review by Thursday 7/19 at 10am and share edits with 1002 ARDs and myself. I will edit and provide final draft to Greg and Karen and deliver to BLM by Friday 7/20 COB.

Attached is the Issue statements prepared by the USFWS for the Arctic National Wildlife Refuge Coastal Plain Seismic Environmental Assessment. These issue statements will be considered by BLM, who is also preparing issue statements based on their experience in NPRA. The final vetted list will be used to guide the Environmental Consequences analysis in the Seismic EA.

Josh Rose (acting oil and gas coordinator for Arctic Refuge) and Sarah Conn led the Seismic EA Interdisciplinary Team in pulling these together, and I have reviewed and made some further edits. Supporting documents, should you desire to consider, are available for you here: [link to documents](#)

I will bring the surnaming packet for signatures around today.

Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

1011 E. Tudor Road, MS-361

Anchorage, AK 99503

907-786-3505

cell: 907-223-5945

From: [Wendy Loya](#)
To: [Nichelle \(Shelly\) Jones](#); [Donna Wixon \(dwixon@blm.gov\)](mailto:dwixon@blm.gov); [Sarah LaMarr](#)
Cc: [Joshua Rose](#); [Joanna Fox](#); [Steve Berendzen](#)
Subject: Suggested ROPs for Seismic EA
Date: Tuesday, July 17, 2018 5:28:00 PM
Attachments: [Suggested ROPS WINTER OPERATIONS Coastal Plain 071718.docx](#)

Hi Shelly, Donna and Sarah,

Attached are the draft ROPs (b5-DP [REDACTED])
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] These should remain for internal consideration while we work towards the alternatives in the EA.

Thank you,
Wendy

Dr. Wendy M. Loya
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Taylor, Eric](#)
To: [Colligan, Mary](#)
Cc: [Wendy Loya](#); [Mitch Ellis](#); [Sara Boario](#); [Joshua Rose](#); [Sarah Conn](#); [Eric Taylor](#)
Subject: Re: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements
Date: Wednesday, July 18, 2018 9:57:38 AM
Attachments: [Draft EA issue statements_07172018_MAC_ejt.docx](#)

Hi Wendy -

My review comments, questions, and edits are added on top of the Mary's document; file name now includes my initials.

I agree, the format is strange in b5-DP

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Tue, Jul 17, 2018 at 2:16 PM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Wendy - I have the purple folder and will sign off on it now and move it on to Eric since Mitch is out today. The format is a little strange, but I understand that is dictated by BLM. I have attached a few minor edits and a couple comments for your consideration. I noted on the routing slip that I send comments electronically and put a hard copy of the attached in the folder.

Thanks,
Mary

On Tue, Jul 17, 2018 at 9:12 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Dear Mary, Mitch and Eric,

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Attached is the Issue statements prepared by the USFWS for the Arctic National Wildlife Refuge Coastal Plain Seismic Environmental Assessment. These issue statements will be considered by BLM, who is also preparing issue statements based on their experience in

NPRA. The final vetted list will be used to guide the Environmental Consequences analysis in the Seismic EA.

Josh Rose (acting oil and gas coordinator for Arctic Refuge) and Sarah Conn led the Seismic EA Interdisciplinary Team in pulling these together, and I have reviewed and made some further edits. Supporting documents, should you desire to consider, are available for you here: [link to documents](#)

I will bring the surnaming packet for signatures around today.

Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

--

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Eric Taylor](#); [Mary Colligan](#)
Cc: [Mitch Ellis](#); [Sara Boario](#); [Joshua Rose](#); [Sarah Conn](#)
Subject: RE: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements
Date: Wednesday, July 18, 2018 10:22:00 AM

Thanks Eric and Mary for your feedback. b5-DP [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. I'll work with Josh to consider all the edits and send a clean version to the RDs once we hear back from Mitch.

Thank you!

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Taylor, Eric <eric_taylor@fws.gov>
Sent: Wednesday, July 18, 2018 7:58 AM
To: Colligan, Mary <mary_colligan@fws.gov>
Cc: Wendy Loya <wendy_loya@fws.gov>; Mitch Ellis <mitch_ellis@fws.gov>; Sara Boario <sara_boario@fws.gov>; Joshua Rose <joshua_rose@fws.gov>; Sarah Conn <sarah_conn@fws.gov>; Eric Taylor <Eric_Taylor@fws.gov>
Subject: Re: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements

Hi Wendy -

My review comments, questions, and edits are added on top of the Mary's document; file name now includes my initials.

I agree, the format is strange b5-DP [REDACTED]
[REDACTED]
[REDACTED]

Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199

907.786.3446 (office)
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eric_taylor@fws.gov

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Josh Rose (acting oil and gas coordinator for Arctic Refuge) and Sarah Conn led the Seismic EA Interdisciplinary Team in pulling these together, and I have reviewed and made some further edits. Supporting documents, should you desire to consider, are available for you here: [link to documents](#)

I will bring the surnaming packet for signatures around today.

Thank you!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
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907.786.3532 (office)
907.277.2942 (mobile)

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Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Diane Ray \(diane_ray@fws.gov\)](mailto:diane_ray@fws.gov)
Subject: TA request: Fairbanks for 1002 Draft EIS Review
Date: Wednesday, July 18, 2018 11:05:00 AM

Hi Diane,

Can you make me a TA for Fairbanks for August 8-10th? I will be in Fairbanks already on annual leave on 8th, but will need to work at the Fairbanks office on 9th and 10th.

I only need hotel (already booked at government rate) for 8th and 9th
POV 20 miles for 2 days from hotel to office
Per diem on 8th and 9th

Let me know if that makes sense.

Thank you!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Richard Lanctot](#)
Subject: Recommended bird studies for 1002 from RRRR 071818.docx
Date: Wednesday, July 18, 2018 1:02:00 PM
Attachments: [Recommended bird studies for 1002 from RRRR 071818.docx](#)

Rick,

Attached are the three recommended study ideas from the Resource Assessments we did in February. The green highlighted one made it to the higher priority list, and is related to the expanded ACP survey and your Prism study. That is why we are still interested in finding funding for this work and welcome your short proposal, tied to management issues ☺

Wendy
Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Mitch Ellis](#)
Cc: [Socheata Lor](#)
Subject: FW: Action Item - Projects needing DOI approval
Date: Wednesday, July 18, 2018 3:49:00 PM

Mitch,

Here is the correspondence from me to Karen Clark on the Financial Assistance Agreement needing approval for Wetlands/NHD for the 1002 area....

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Thursday, June 7, 2018 10:05 AM
To: Karen Clark <karen_clark@fws.gov>
Subject: RE: Action Item - Projects needing DOI approval

Dear Karen and Greg,

We have a project entered in the Financial Assistance spreadsheet that needs approval by the Senior Advisor, DOI-PMB.

Line item 1637: Updated National Hydrography Data (DTS # 068085; new agreement; FWS181655)

Timeline: We need to submit the paperwork to our regional CGS office by June 29th in order to issue the agreement in FY18.

The agreement would be with St. Mary's University in Winona, MN, who is the primary organization doing NWI and NHD in Alaska.

This project is part of the Region 7 operations plan submitted to Deputy Principal Sheehan and subsequent agency directed commitment of \$1.2 million dollars to go towards science needed to inform management of the DOI priority program for Oil and Gas Leasing in the Coastal Plain (1002 area) of the Arctic National Wildlife Refuge. Obtaining updated National Hydrology and National Wetlands Inventory maps will help FWS, BLM and the Army Corps of Engineers expeditiously process applications for exploration and development.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Scott Guyer \(sguyer@blm.gov\)](mailto:sguyer@blm.gov)
Subject: Contract is approved and solicitation is out for 1002 veg map
Date: Wednesday, July 18, 2018 6:15:00 PM

Hi Scott,

I don't know how this works, but I believe the vegetation mapping contract solicitation is open now through August 9th. Do you have time to help me bring this to the attention of DU and ABR? Or at least DU? Or any other tips for advertising it?

Solicitation Number: RFQ 1306560
Solicitation Issue Date: 07/18/2018
Solicitation Closing Date: 08/09/2018

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Ellis, Mitch](#)
To: [Taylor, Eric](#)
Cc: [Colligan, Mary](#); [Wendy Loya](#); [Sara Boario](#); [Joshua Rose](#); [Sarah Conn](#)
Subject: Re: Due Thursday 10am: 1002 ARD Review for surnaming: Seismic EA Issue Statements
Date: Wednesday, July 18, 2018 7:36:13 PM

Wendy and gang...I surnamed the hard copy to keep it moving, but agree with Eric that the format was hard to follow. Things are moving recklessly fast, but I trust we are catching all the pertinent information and asking all the right questions? Thanks everyone for doing a great job in light of the task in front of you.

Mitch Ellis
Chief of Refuges - Alaska
National Wildlife Refuge System
US Fish and Wildlife Service
(907)786-3667 wk
(907)947-4416 mob

On Wed, Jul 18, 2018 at 7:57 AM, Taylor, Eric <eric_taylor@fws.gov> wrote:

Hi Wendy -

My review comments, questions, and edits are added on top of the Mary's document; file name now includes my initials.

I agree, the format is strange **b5-DP**



Eric

Eric J. Taylor
Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS 201
Anchorage, Alaska 99503-6199
907.786.3446 (office)
907.903.7210 (cell)
eric_taylor@fws.gov

On Tue, Jul 17, 2018 at 2:16 PM, Colligan, Mary <mary_colligan@fws.gov> wrote:

Wendy - I have the purple folder and will sign off on it now and move it on to Eric since Mitch is out today. The format is a little strange, but I understand that is dictated by BLM. I have attached a few minor edits and a couple comments for your consideration. I noted on the routing slip that I send comments electronically and put a hard copy of the attached in the folder.

Thanks,
Mary

On Tue, Jul 17, 2018 at 9:12 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Dear Mary, Mitch and Eric,

Please review by Thursday 7/19 at 10am and share edits with 1002 ARDs and myself. I will edit and provide final draft to Greg and Karen and deliver to BLM by Friday 7/20 COB.

Attached is the Issue statements prepared by the USFWS for the Arctic National Wildlife Refuge Coastal Plain Seismic Environmental Assessment. These issue statements will be considered by BLM, who is also preparing issue statements based on their experience in NPRA. The final vetted list will be used to guide the Environmental Consequences analysis in the Seismic EA.

Josh Rose (acting oil and gas coordinator for Arctic Refuge) and Sarah Conn led the Seismic EA Interdisciplinary Team in pulling these together, and I have reviewed and made some further edits. Supporting documents, should you desire to consider, are available for you here: [link to documents](#)

I will bring the surnaming packet for signatures around today.

Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

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0000008623

Mary Colligan
Assistant Regional Director
Fisheries and Ecological Services
U.S. Fish and Wildlife Service, Alaska Region
1011 E. Tudor Road, MS-361
Anchorage, AK 99503
907-786-3505
cell: 907-223-5945

From: [Wendy Loya](#)
To: [Drew Crane](#)
Subject: Thank You
Date: Thursday, July 19, 2018 11:35:00 AM

Drew,

Please forgive me that I failed to include your email address when Greg asked for contact info for the 1002 team. You should have also received this email he sent on Tuesday. Please forgive me, you've been helping every step of the way to get as far as we have!

Sincerely,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Greg Siekaniec <greg_siekaniec@fws.gov>
Sent: Tuesday, July 17, 2018 5:35 AM

Dear Arctic Refuge Interdisciplinary Team,

Last week we attended the Arctic Refuge Coastal Plain Leasing EIS workshop hosted by BLM for Cooperating Agencies. The format was similar to the internal meeting held in Fairbanks over two days in June, and included partners from State of Alaska, the Native Villages of Kaktovik, Venetie, and Arctic Village, and the North Slope Borough. As you know Mary Colligan, Steve Berendzen and Wendy Loya represented your planning thoughts and ideas during the workshop. They were able to share the results of the hard work you all have done over the last month to envision a path that acknowledges all of the refuge purposes including the recent addition of an oil and gas program. In addition, Karen and I were invited to the BLM office Thursday afternoon for a brief on the outcome of the workshop. We were very pleased and encouraged to see the original purposes of wildlife, subsistence, waters, wilderness, and recreation represented very well in the alternatives. It is too early to know how the final alternatives will reflect the range of conservation values we want ensure for future generations but your efforts have set the stage.

Compliments have been forthcoming from BLM and others on how well the Service was prepared for presenting data, ideas, and dialogue around the issues. Your toils provided leadership to the entire planning group of cooperating organizations. You all contributed to empowering our representatives with the information needed to provide the scientific and conservation basis for requesting stipulations and best management strategies that will reduce impacts to high value wildlife habitats and important uses. Other cooperating organizations expressed gratitude that we had the foresight to bring forward data and information that could help inform a reasonable range of alternatives in this difficult and accelerated decision-making process.

Again, thank you for all the time and hard work over these past few months. Please know that your efforts are valued and you are making a positive impact as we stay the course as a Cooperating Agency on the Draft Leasing EIS and Seismic EA.

Greg

From: [Wendy Loya](#)
To: [Sarah LaMarr](#)
Cc: [Nichelle \(Shelly\) Jones](#); [Donna Wixon](#); [Steve Berendzen](#); [Joanna Fox](#); [Joshua Rose](#)
Subject: RE: Information requests to FWS regarding 1002/Seismic
Date: Thursday, July 19, 2018 2:13:00 PM

Hi Sarah,

Thanks for checking in, Josh Rose had posed the same question. It is definitely ok for experts to work together. I need to come in when we are preparing a formal response that may reflect the FWS position, which needs review by our directorate. Communications from FWS to BLM that would be shared with another agency or company, should also come through me for review on quality and clarity.

In your example, we do want to ensure that our response for the seismic EA is consistent with our response on the Leasing EIS, so please share our draft Leasing EIS ROPs with staff there that I sent on Tuesday. But in that type of case I believe the task is for FWS staff to keep me in the loop, not BLM. I am concerned that if I don't see drafted ROPs (I suggest we should use ROPs per how Leasing EIS will be prepared) before the public review period, we'll have a bit of a mess, so keep me and Steve B in the loop as much as possible.

I will send a notice of our points of contact next week for while I will be on leave July 25-Aug 8th. Thank you!

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Sarah LaMarr <slamarr@blm.gov>
Sent: Thursday, July 19, 2018 11:29 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Nichelle Jones <njones@blm.gov>; Wixon, Donna <dwixon@blm.gov>; Steve Berendzen <steve_berendzen@fws.gov>; Joanna Fox <joanna_fox@fws.gov>; Rose, Joshua <joshua_rose@fws.gov>
Subject: Re: Information requests to FWS regarding 1002/Seismic

Hi Wendy - we understand that all requests for information will go through you and Josh. However, can our specialists work directly together on specific topics where they would send draft documents back and forth for review/edits? Matt Whitman would like to work directly with Randy on aquatic issue statements and bmeps. Matt has a list of issues and bmeps that he would like to run by Randy. Can Matt send his issues and bmeps directly to Randy or should he send them to you and Josh first?

Sarah La Marr
Bureau of Land Management
Arctic District Office
Fairbanks, Alaska
907-474-2334 (desk)
907-888-3407 (cell)
slamarr@blm.gov

On Thu, Jul 12, 2018 at 11:24 AM Wendy Loya <wendy_loya@fws.gov> wrote:

Hi Donna, Shelly and Sarah,

The FWS has implemented protocols to ensure that the information we share with you is the best available information we have and that if we are providing information that might reflect the FWS position on a topic, it undergoes adequate review by the appropriate experts and leadership at FWS. We also want to make sure that we are consistent in our responses across the Leasing EIS and the Seismic EA, and given the rapid nature of both processes, things change quickly. My role is to help keep those bridged, but I don't always have a chance to update our point of contacts in real time.

Please send requests for information for the Seismic EA both Josh Rose and I, and we will work together to ensure a timely response.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Nicole Hayes](#)
Subject: Revised K-Coastal Area (combining FWS K-2 and K6)
Date: Thursday, July 19, 2018 6:03:00 PM
Attachments: [K-Coastal Areas revised 071918.docx](#)

Hi Nicole,

We agree that there was some redundancy among the two coastal stipulations we put forth, but not entirely. I have synthesized this in the last 30 min per your request, but may be overlooking further overlap or may have missed something, but attached is a suggested revised Coastal Area stipulation that includes coastal waters, lagoons, barrier islands, and shorelines within the 1002 area.

We do not want to remove the seasonal restriction language, primarily to reduce human-bear interactions, protect migratory waterfowl nesting and staging on islands and waters, fish migration and subsistence use.

Please consider the attached. I will get back to you on the caribou stips in the morning!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Nicole Hayes](#)
Cc: [Stephen Arthur](#); [Paul Leonard](#)
Subject: Porcupine Caribou Stipulations revised
Date: Friday, July 20, 2018 12:55:00 PM
Attachments: [K5a and c caribou revised 072018.docx](#)

Nicole,

We have quickly done the math with some assumptions from the NPRA development scenarios and the results of Cameron et al. 2005 to try to come up with a reasonable means of minimizing impacts to post-calving habitat while allowing reasonable development if resources are in this area. It is of course difficult if not impossible to know how development will occur, so the goal of leasing stipulations is to make space for the analysis in the future while setting some science-based thresholds.

We did the math on allowing 10% of the entire area to be covered by roads or well pads. That would be .1 x 11.5 townships x 980 Km² =98 km² of roads. NPRA IAP assumes 7.5 acres per mi road and 10 acres per well pad, so we picked 8.5 acres lost per km², which is inexact. Under that assumption, the total footprint that would be allowed in the post-calving area would be 510 acres, which is almost 25% of the allowable footprint for the 1002 area. If we assume a 3 km displacement of caribou (moderate assumption, 5 km would be conservative) either side of a road per Cameron et al. 1992 and 2005, we would have approximately 22% of the area impacted by roads/wellpads. Of course how it is laid out is important, so that is where planning under Caribou summer habitat comes in.

A reminder about the timing restrictions if that is a concern: the AO can allow for exceptions if caribou presence is low or the total area being disturbed concurrently is small.

We had an error in the description of township 06N031E, it is part of the post-calving not NSO area, so the attached reflects that change.

Thank you,

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Cc: [Stephen Arthur](#); [Paul Leonard](#)
Subject: Re: Porcupine Caribou Stipulations revised
Date: Friday, July 20, 2018 12:59:57 PM

Thank you, all!
Nicole

Nicole Hayes
Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354

On Fri, Jul 20, 2018 at 10:55 AM, Wendy Loya <wendy_loya@fws.gov> wrote:

Nicole,

We have quickly done the math with some assumptions from the NPRA development scenarios and the results of Cameron et al. 2005 to try to come up with a reasonable means of minimizing impacts to post-calving habitat while allowing reasonable development if resources are in this area. It is of course difficult if not impossible to know how development will occur, so the goal of leasing stipulations is to make space for the analysis in the future while setting some science-based thresholds.

We did the math on allowing 10% of the entire area to be covered by roads or well pads. That would be .1 x 11.5 townships x 980 Km² = 98 km² of roads. NPRA IAP assumes 7.5 acres per mi road and 10 acres per well pad, so we picked 8.5 acres lost per km², which is inexact. Under that assumption, the total footprint that would be allowed in the post-calving area would be 510 acres, which is almost 25% of the allowable footprint for the 1002 area. If we assume a 3 km displacement of caribou (moderate assumption, 5 km would be conservative) either side of a road per Cameron et al. 1992 and 2005, we would have approximately 22% of the area impacted by roads/wellpads. Of course how it is laid out is important, so that is where planning under Caribou summer habitat comes in.

A reminder about the timing restrictions if that is a concern: the AO can allow for exceptions if caribou presence is low or the total area being disturbed concurrently is small.

We had an error in the description of township 06N031E, it is part of the post-calving not NSO area, so the attached reflects that change.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Nichelle \(Shelly\) Jones](#); [Sarah LaMarr](#); [Donna Wixon \(dwixon@blm.gov\)](#)
Cc: [Joshua Rose](#); [Joanna Fox](#); [Steve Berendzen](#)
Subject: FWS Issue Statements for Seismic EA
Date: Friday, July 20, 2018 2:09:00 PM
Attachments: [2018_0719_FINAL_Seismic_EA_issue_statements.docx](#)
[2018_0720_Coastal_Plain_Seismic_EA_Issue_Statements_transmittal.docx](#)

Dear Shelly,

Attached are the issues FWS staff have identified in relation to the proposed action by SAE for winter seismic exploration across the entire 1002 area. Please share with your staff experts as we work towards the environmental consequences analysis.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Chad Ricklefs](#)
To: [Wendy Loya](#)
Cc: [Kate Krebs](#); [Amy Lewis](#); [Hayes, Miriam \(Nicole\)](#)
Subject: [EXTERNAL] RE: Response: USFWS Action Items
Date: Friday, July 20, 2018 4:49:15 PM

Hi Wendy,

A question has come up from one of our resource authors regarding the lists of rivers in the Rivers Stipulation. Can you provide some background as to why only certain rivers were called out for specific protections in the Rivers stipulation. Was there certain habitat, species, functionality, etc. associated with these rivers to warrant them being listed? If so, can you provide the specific rationale for protecting these rivers? It would be helpful to describe the rationale for each of the rivers so that our authors can make sure they discuss impacts on those qualities.

Thanks!

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707

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From: Wendy Loya [mailto:wendy_loya@fws.gov]
Sent: Thursday, July 12, 2018 7:10 PM
To: Kate Krebs <kate.krebs@empsi.com>
Cc: Miriam (Nicole) Hayes <mnhayes@blm.gov>; Chad Ricklefs <chad.ricklefs@empsi.com>; Amy Lewis <amy.lewis@empsi.com>
Subject: Response: USFWS Action Items

Hi Kate,

Attached are our edits to K-1C. We have removed the no-leasing stipulation and have asked for only No surface occupancy at 3,4 and 1 mi around respective springs, and 1 mi around aufeis.
Updated K1C for springs with revised study language and NSO buffers.

C-2 is revised for snowfences and to allow for agency personnel or their representative(s) to go out with seismic operators as monitors

K5a: attempt to clarify numbers. Original BLM language was vague, and that may have allowed authorized officer some flexibility. We are comfortable with either the original or our revision for the DEIS.

K5c: still draft, attempt to reduce density in a meaningful way while allowing development in each township area. Need to work with Rob at BLM once RFDS is available.

0000008634

Have requested Casey Burns follow up on USGS ACP bird survey data as he is aware of it and that is his section.

Attaching calving success data. The attached tables show estimates of productivity (based on calf:cow ratios in late June) for both herds.

May be other small edits as we continue to go over partner suggested revisions with our experts.

Thanks you guys!!!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Kate Krebs <kate.krebs@empsi.com>
Sent: Thursday, July 12, 2018 7:15 AM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Hayes, Miriam (Nicole) <mnhayes@blm.gov>; Chad Ricklefs <chad.ricklefs@empsi.com>; Amy Lewis <amy.lewis@empsi.com>
Subject: [EXTERNAL] USFWS Action Items

Wendy:

Thank you so much for your participation this week. I think I speak for the BLM when I say that this week would not have gone as well if USFWS had not put such thought into the alternatives in advance of the meeting.

I have the following action items for you/USFWS:

- Update part a of Stip K-1c (springs/aufeis) because it would require drilling.
- Springs/Aufeis (K1c): FWS doesn't have a good understanding of groundwater and how to protect. Where is ice chip harvesting dealt with? Tamayarik and Okerokavik are both located in high potential area. FWS will think more about this with their hydrology specialists.
- Stip K-5a (caribou summer habitat):
 - Part b: Define significant
 - Part 2: one part uses 10 or more caribou, then goes on to say "a large number of caribou". Can there be consistency in using numbers versus more generic language
- Stip K-5c (post-calving): Update 0.6% if there is something more appropriate
- Birds: FWS asked to look to new USGS breeding bird maps to update this data shown on current map; suggests there are four species that use the Refuge more than others (jaegers, etc) (FWS TO PROVIDE?)
- Caribou: FWS might have data on calving success rates to share
- FWS: Wendy is drafting BMP re. snow fences

Kate Krebs

EMPSi Environmental Management and Planning Solutions, Inc.

Please note our new street address:

3005 Center Green Drive, Suite 205

Boulder, CO 80301

tel: 303-495-3506 main: 303-447-7160 fax: 866-625-0707

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From: [Marcia Rickey](#)
To: [Paul Leonard](#)
Cc: [Wendy Loya](#); [Hayes, Miriam \(Nicole\)](#); [Kate Krebs](#); [Hamfler, Cindy](#)
Subject: [EXTERNAL] Coastal Plain stip 5
Date: Monday, July 23, 2018 9:53:08 AM
Attachments: [CoastalPlain_alts_DATAVERIFY_PolarBearRiverName.pdf](#)
Importance: High

Hi Paul,

I did a final comparison of the alternatives text to the GIS and noticed a question. Please see attached data verify map for the polar bear denning 5 miles inland. When using BLM NHD for rivers, it seems like the Nularvik Creek and Itkilyariak Creek are too far inland to apply? And the Salderochit River is within the area, but perhaps not officially?

List from current Alternative D text:

Lease Stipulation 5-Coastal Polar Bear Denning Critical Habitat

NSO: From the coastline to 5 miles inland, no permanent oil and gas infrastructure shall be located within 1-mile of potential polar bear denning habitat on the [Niguanak River](#), [Katakaturuk Creek](#), [Nularvik Creek](#), [Marsh Creek](#), [Carter Creek](#), and [Itkilyariak Creek](#) unless alternative protective measures are approved by the authorized officer in consultation with the US Fish and Wildlife Service.

Thanks,

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

tel: 303-447-7160 fax: 866-625-0707

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0000008637

From: [Wendy Loya](#)
To: "[Chad Ricklefs](#)"
Cc: "[Kate Krebs](#)"; "[Amy Lewis](#)"; [Miriam \(Nicole\) Hayes](#)
Subject: Table and contacts for River values
Date: Monday, July 23, 2018 11:01:00 AM
Attachments: [Coastal PLain Inland Waters 072018.xlsx](#)

Chad,

This got stuck in my outbox Friday...sorry for the delay.

Chad,

Your IDT members can contact John Trawicki (hydrology) and Randy Brown (fisheries, and very knowledgeable about habitat) as well as look at the attached table we shared (and have continued to update) at the Alternatives meeting that goes over the FWS known key values for each river.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Chad Ricklefs <chad.ricklefs@empsi.com>
Sent: Friday, July 20, 2018 2:49 PM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Kate Krebs <kate.krebs@empsi.com>; Amy Lewis <amy.lewis@empsi.com>; Hayes, Miriam (Nicole) <mnhayes@blm.gov>
Subject: [EXTERNAL] RE: Response: USFWS Action Items

Hi Wendy,

A question has come up from one of our resource authors regarding the lists of rivers in the Rivers Stipulation. Can you provide some background as to why only certain rivers were called out for specific protections in the Rivers stipulation. Was there certain habitat, species, functionality, etc. associated with these rivers to warrant them being listed? If so, can you provide the specific rationale for protecting these rivers? It would be helpful to describe the rationale for each of the rivers so that our authors can make sure they discuss impacts on those qualities.

Thanks!

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.
3005 Center Green Drive, Suite 205
Boulder, CO 80301
direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707
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From: [Marcia Rickey](#)
To: [Wendy Loya](#); [Paul Leonard](#)
Cc: [Miriam \(Nicole\) Hayes](#); [Kate Krebs](#); [Cindy Hamfler](#)
Subject: RE: [EXTERNAL] Coastal Plain stip 5
Date: Monday, July 23, 2018 1:16:00 PM

Thanks Wendy and Paul for getting back to us quickly. Kate will make the river names correction in the Word file.

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.
3005 Center Green Drive, Suite 205
Boulder, CO 80301
tel: 303-447-7160 fax: 866-625-0707
www.EMPSi.com Twitter: EMPSInc Facebook: EMPSi

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From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, July 23, 2018 1:04 PM
To: Marcia Rickey <marcia.rickey@empsi.com>; Paul Leonard <paul_leonard@fws.gov>
Cc: Miriam (Nicole) Hayes <mnhayes@blm.gov>; Kate Krebs <kate.krebs@empsi.com>; Cindy Hamfler <chamfler@blm.gov>
Subject: RE: [EXTERNAL] Coastal Plain stip 5

Hi Marcia,

Our polar bear biologists did not look carefully at the map for river names, they used our list. The updated Stipulation language is below based off the map you sent with your question.

Lease Stipulation 5-Coastal Polar Bear Denning Critical Habitat

NSO: From the coastline to 5 miles inland, no permanent oil and gas infrastructure shall be located within 1-mile of potential polar bear denning habitat on the [Niguanak River](#), [Katakturuk River](#), [Marsh Creek](#), [Carter Creek](#), and [the Saddlerochit River](#) unless alternative protective measures are approved by the authorized officer in consultation with the US Fish and Wildlife Service.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

0000008640

From: Marcia Rickey <marcia.rickey@empsi.com>
Sent: Monday, July 23, 2018 7:51 AM
To: Paul Leonard <paul_leonard@fws.gov>
Cc: Wendy Loya <wendy_loya@fws.gov>; Hayes, Miriam (Nicole) <mnhayes@blm.gov>; Kate Krebs <kate.krebs@empsi.com>; Hamfler, Cindy <chamfler@blm.gov>
Subject: [EXTERNAL] Coastal Plain stip 5
Importance: High

Hi Paul,

I did a final comparison of the alternatives text to the GIS and noticed a question. Please see attached data verify map for the polar bear denning 5 miles inland. When using BLM NHD for rivers, it seems like the Nularvik Creek and Itkilyariak Creek are too far inland to apply? And the Salderochit River is within the area, but perhaps not officially?

List from current Alternative D text:

Lease Stipulation 5-Coastal Polar Bear Denning Critical Habitat

NSO: From the coastline to 5 miles inland, no permanent oil and gas infrastructure shall be located within 1-mile of potential polar bear denning habitat on the **Niguanak River, Katakturuk Creek, Nularvik Creek, Marsh Creek, Carter Creek, and Itkilyariak Creek** unless alternative protective measures are approved by the authorized officer in consultation with the US Fish and Wildlife Service.

Thanks,

Marcia Rickey

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

tel: 303-447-7160 fax: 866-625-0707

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0000008641

From: [Wendy Loya](#)
To: [John Trawicki](#); [Randy Brown](#)
Subject: FW: Table and contacts for River values
Date: Monday, July 23, 2018 1:41:00 PM
Attachments: [Coastal PLain Inland Waters 072018.xlsx](#)

FYI

From: Wendy Loya <wendy_loya@fws.gov>
Sent: Monday, July 23, 2018 9:01 AM
To: 'Chad Ricklefs' <chad.ricklefs@empfi.com>
Cc: 'Kate Krebs' <kate.krebs@empfi.com>; 'Amy Lewis' <amy.lewis@empfi.com>; Miriam (Nicole) Hayes <mnhayes@blm.gov>
Subject: Table and contacts for River values

Chad,

This got stuck in my outbox Friday...sorry for the delay.

Chad,

Your IDT members can contact John Trawicki (hydrology) and Randy Brown (fisheries, and very knowledgeable about habitat) as well as look at the attached table we shared (and have continued to update) at the Alternatives meeting that goes over the FWS known key values for each river.

Thank you,
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: Chad Ricklefs <chad.ricklefs@empfi.com>
Sent: Friday, July 20, 2018 2:49 PM
To: Wendy Loya <wendy_loya@fws.gov>
Cc: Kate Krebs <kate.krebs@empfi.com>; Amy Lewis <amy.lewis@empfi.com>; Hayes, Miriam (Nicole) <mnhayes@blm.gov>
Subject: [EXTERNAL] RE: Response: USFWS Action Items

Hi Wendy,

A question has come up from one of our resource authors regarding the lists of rivers in the Rivers Stipulation. Can you provide some background as to why only certain rivers were called out for specific protections in the Rivers stipulation. Was there certain habitat, species, functionality, etc. associated with these rivers to warrant them being listed? If so, can you provide the specific

rationale for protecting these rivers? It would be helpful to describe the rationale for each of the rivers so that our authors can make sure they discuss impacts on those qualities.

Thanks!

Chad Ricklefs, AICP

EMPSi Environmental Management and Planning Solutions, Inc.

3005 Center Green Drive, Suite 205

Boulder, CO 80301

direct: 303-495-5129 main: 303-447-7160 fax: 866-625-0707

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From: [Wendy Loya](#)
To: [Joshua Rose](#); [John Trawicki](#); [Joanna Fox](#); [Steve Berendzen](#); [Sarah Conn](#); [Drew Crane](#); [Paul Leonard](#)
Subject: POCs: info while Wendy on leave July 15th-Aug 8th
Date: Monday, July 23, 2018 4:25:00 PM

Hi 1002 POCs,

I am headed out into the Refuge to recharge for the next two weeks. You'll get this and 2 other emails, one to the IDT team and one to BLM/EMPSi contacts.

What has mostly been happening is this:

- 1) I have been working with Nicole to make small revisions to our Stipulations and BMPs (will be called Required Operating Procedures in the EIS; ROPs). The latest draft will be on the google drive. Hopefully this work is mostly finished for now, but if you are asked by Nicole to make changes please keep track of them.

- a. **b5-DP** [Redacted]
- b. **b5-DP** [Redacted]

- 2) BLM and the contractors are working furiously to write the affected environment, environmental consequences, development scenario and tweak the alternatives as they learn about the values. If you get questions, please reach out to Service staff for their expertise! Our IDT team can be viewed here:

b5-DP [Redacted]

- 3) You will get an email from me with my satellite texting contact info via an Inreach. Don't hesitate to use it if you have an important question. I am on leave, but I will regret being gone if things get messy while I am gone :0! Someone please volunteer to text me if you find out that the DEIS review is delayed, that will reduce my stress significantly.



- 4) I'll be back from the Arctic to Fairbanks around 11pm on the 8th, and will head to the FFO the morning of the 9th to work that day to kick off the Leasing DEIS review.

Thanks!
Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Joshua Rose](#)
Subject: BLM E-planning website for Seismic EA
Date: Monday, July 23, 2018 5:52:00 PM

I just found this, maybe you were aware. Can be a resource for any inquiries about the status of info in addition to referring people to BLM Arctic District Office ☺

<https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=111085>

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Mitch Ellis](#)
Subject: BLM e-planning websites for Arctic Refuge Coastal Plain
Date: Monday, July 23, 2018 6:30:00 PM

Mitch,

Here are links to the BLM's eplanning website for documents shared by BLM for the public:

Seismic EA: <https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=111085>

Leasing EIS: <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=renderDefaultPlanOrProjectSite&projectId=102555>

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [Joshua Rose](#); [John Trawicki](#); [Joanna Fox](#); [Steve Berendzen](#); [Sarah Conn](#); [Drew Crane](#); [Paul Leonard](#)
Subject: Re: POCs: info while Wendy on leave July 15th-Aug 8th
Date: Wednesday, July 25, 2018 7:54:44 AM

A small reminder to not share the Stips doc in its entirety until the draft EIS is released to the public, where some a version of it should appear. Share any sections you need with our staff experts by pasting those into a new document. We want to avoid sharing of this table or any aspect of pre-DEIS work outside FWS and BLM, same with the maps.

Thank you!
Wendy

Dr. Wendy M. Loya, Coordinator
Office of Science Applications- Arctic Program
Anchorage, Alaska
[907.786.3532](tel:907.786.3532) (office)
[907.227.2942](tel:907.227.2942) (mobile)

On Jul 23, 2018, at 14:25, Wendy Loya <wendy_loya@fws.gov> wrote:

Hi 1002 POCs,

I am headed out into the Refuge to recharge for the next two weeks. You'll get this and 2 other emails, one to the IDT team and one to BLM/EMPSi contacts.

What has mostly been happening is this:

- 1) I have been working with Nicole to make small revisions to our Stipulations and BMPs (will be called Required Operating Procedures in the EIS; ROPs). The latest draft will be on the google drive. Hopefully this work is mostly finished for now, but if you are asked by Nicole to make changes please keep track of them.

- a. **b5-DP**
[Redacted]

- 2) BLM and the contractors are working furiously to write the affected environment, environmental consequences, development scenario and tweak the alternatives as they learn about the values. If you get questions, please reach out to Service staff for their expertise!
Our IDT team can be viewed here:

b5-DP
[Redacted]

- 3) You will get an email from me with my satellite texting contact info via an Inreach. Don't hesitate to use it if you have an important question. I am on leave, but I will regret being gone if things get messy while I am gone :0! Someone please volunteer to text me if you find out that the DEIS review is delayed, that will reduce my stress significantly.

<image003.jpg>

- 4) I'll be back fro the Arctic to Fairbanks around 11pm on the 8th, and will head to the FFO the

morning of the 9 to work that day to kick off the Leasing DEIS review.

Thanks!

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Wendy Loya](#)
To: [FWS Region 7](#); steve_berendzen@fws.gov; joanna_fox@fws.gov
Subject: Stips for EA
Date: Wednesday, July 25, 2018 8:01:08 AM

Josh, Joanna and Steve,

Can you please look at our recommended K-stips in the google doc link below and share all that are relevant to Seismic with Shelly, Donna and Sarah LaMarr? I already sent the winter tundra travel ones, but it occurred to me that there are elements of the polar bear denning habitat or maybe others that are relevant. I just haven't had time to think clearly on the seismic EA as we have worked like crazy on the Leasing EIS these past few weeks!

Thanks,
Wendy

Hi 1002 POCs,

I am headed out into the Refuge to recharge for the next two weeks. You'll get this and 2 other emails, one to the IDT team and one to BLM/EMPSi contacts.

What has mostly been happening is this:

- 1) I have been working with Nicole to make small revisions to our Stipulations and BMPs (will be called Required Operating Procedures in the EIS; ROPs). The latest draft will be on the google drive. Hopefully this work is mostly finished for now, but if you are asked by Nicole to make changes please keep track of them.

- a. **b5-DP** [REDACTED]

- 2) BLM and the contractors are working furiously to write the affected environment, environmental consequences, development scenario and tweak the alternatives as they learn about the values. If you get questions, please reach out to Service staff for their expertise! Our IDT team can be viewed here:

b5-DP [REDACTED]

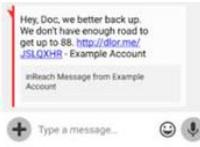
- 3) You will get an email from me with my satellite texting contact info via an Inreach. Don't hesitate to use it if you have an important question. I am on leave, but I will regret being gone if things get messy while I am gone :0! Someone please volunteer to text me if you find out that the DEIS review is delayed, that will reduce my stress significantly.

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4) I'll be back from the Arctic to Fairbanks around 11pm on the 8th, and will head to the FFO the morning of the 9th to work that day to kick off the Leasing DEIS review.

Thanks!

Wendy

Dr. Wendy M. Loya,
Arctic Program Coordinator
Office of Science Applications, US Fish and Wildlife Service
Anchorage, Alaska
907.786.3532 (office)
907.277.2942 (mobile)

From: [Hayes, Miriam \(Nicole\)](#)
To: [Wendy Loya](#)
Cc: [Steve Berendzen](#)
Subject: Re: Stips
Date: Wednesday, July 25, 2018 10:38:07 AM

Thank you, Wendy. I think we have made really good progress with the alternatives though they certainly need more work. A lot of FWS comments to date made it's way in but not all. We have "locked" them in for purposes of analysis but I'm stockpiling my comments for the 8/9 review - please do the same.
Nicole

Nicole Hayes

Project Coordinator
Bureau of Land Management
222 W. 7th Avenue #13
Anchorage, Alaska 99513
Desk: (907) 271-4354
Cell: (907) 290-0179

On Tue, Jul 24, 2018 at 1:28 PM, Wendy Loya <wendy_loya@fws.gov> wrote:

Hey Nicole,

I want to make sure our edits to the springs and other stips I have sent you in the last week make it into the Draft EIS and therefore the impacts analyses. I think the current springs stip is not updated, for example. I also feel that it is important that Alternative B and C don't ignore the other purposes of the refuge, and so retaining or adding in some gradient of our recommendations is what I believe will make this EIS successful. I have good conversations with caribou biologists about what we put forth, and while they may seem restrictive compared to nothing, these requests are being characterized as reasonable and not overly conservative and are similar to NPRA.

A few points in particular:

The Hulahula setback should be no less than 2 mi under Alternative C to allow for subsistence, recreation and high value habitat protection. That was the minimum in our viewshed analysis in some areas, while the 4 mi setback was more appropriate for both viewshed and soundshed protection.

The Canning River Delta is available for leasing, but the surface occupancy should be prohibited near lakes as it is clear that these water resources are important to the Refuge given the lack of lake habitats overall. Aslo, massive icing during winter associated with groundwater out through the delta makes this different than the Colville, for example. Lots

of differences between NPRA and the Refuge, but there are reasons why we have asked for some protections that are both biological as well as potentially practical/engineering.

Stip 5 about Polar Bear denning critical habitat. This isn't just about protecting the bears, but protecting humans from interactions with bears. Alternative C could include this stipulation for at least 3-4 miles, and perhaps bears would deflect to stay within that closer area more often.

Caribou summer habitat: it is essential that we retain the requirement across all alternatives that infrastructure is oriented to avoid impeding caribou movements. Please include this language in all alternatives:

Required Operating Procedure: The following standards will be applied to permitted activities:

- a. Lessees shall orient infrastructure when laying out oil and gas field developments to avoid impeding caribou migration and to avoid corralling effects.
- b. Before authorization of construction of permanent facilities (limited as they may be by restricted surface occupancy areas established in other lease stipulations), the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Porcupine and Central Arctic Caribou herds has been completed within the last 10 years.

I believe that the science is there to back up these stipulations, and that is an important component of adding variation across alternatives. All 5 purposes are important and excluding minimum protections for high value habitats could make it difficult to manage for all.

Thank you for your leadership on this! I'll look forward to the DEIS when I get back from my trip 😊

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.277.2942 (mobile)

From: [Rose, Joshua](#)
To: [Wendy Loya](#)
Subject: Fwd: URGENT: EA key milestones
Date: Wednesday, July 25, 2018 1:09:10 PM
Attachments: [Seismic EA Key Milestones_07252018.docx](#)

Wendy,

Sorry, I forgot to include you in the original.

Thanks,
Josh

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

From: **Rose, Joshua** <joshua_rose@fws.gov>
Date: Wed, Jul 25, 2018 at 11:01 AM
Subject: URGENT: EA key milestones
To: "Nichelle (Shelly) Jones" <njones@blm.gov>, Sarah LaMarr <slamarr@blm.gov>
Cc: "Fox, Joanna" <joanna_fox@fws.gov>

Shelly and Sarah,

We have a request from our Principle Deputy Director for an update on the key milestones for the Seismic EA **due by 3pm today**. To ensure I haven't mischaracterized our completed activities or misrepresented our future milestones please review, edit, or comment on the attached document as soon as possible.

Thanks,
Josh

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

--

Joshua Rose
Acting Oil and Gas Coordinator
Arctic National Wildlife Refuge
101 12th Ave., Rm 236
Fairbanks, AK 99701
phone: (907) 456-0409

From: [Berendzen, Steve](#)
To: [O'Dell, Patrick](#)
Cc: [Wendy Lova](#); [Fox, Joanna](#)
Subject: Re: Seismic Data Considerations
Date: Thursday, July 26, 2018 2:17:40 PM

Thanks, Patrick - this makes sense to me and I hope it plays out as you suggest it should.

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253

On Thu, Jul 26, 2018 at 9:31 AM, O'Dell, Patrick <patrick_odell@fws.gov> wrote:

Hi Wendy,

b5-DP [Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

b5-DP [Redacted]

Hope this answers your questions and happy to discuss.

Pat O'Dell
Petroleum Engineer
National Wildlife Refuge System
Division of Natural Resources
Office: 303-236-4365
Mobile: 303-204-9439
patrick_odell@fws.gov

From: [Todd Hopkins](#)
To: [Wendy Loya](#)
Subject: Fwd: Service Mitigation Policy - Withdrawal (to be published in Federal Register tomorrow)
Date: Friday, July 27, 2018 10:03:19 AM

Wendy,

Just FYI. BLM is not going to ask for compensatory mitigation any more. I have not read the Service policy in this announcement yet

Todd

=====

Todd E. Hopkins, Ph.D.

Acting Chief (6/11 – 8/3)

Natural Resources Division

National Wildlife Refuge System

U.S. Fish & Wildlife Service

1011 East Tudor Road

Anchorage, AK 99503

Off: (907) 786-3584

Cell: (772) 584-2594

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From: **Martin, John** <john_w_martin@fws.gov>
Date: Fri, Jul 27, 2018 at 7:56 AM
Subject: Service Mitigation Policy - Withdrawal (to be published in Federal Register tomorrow)
To: Tracy Fischbach <tracy_fischbach@fws.gov>
Cc: Stephanie Brady <stephanie_brady@fws.gov>, John Trawicki <john_trawicki@fws.gov>, Todd Hopkins <todd_hopkins@fws.gov>

Tracy

Please be advised of the subject rule notice in the Federal Register tomorrow regarding the Service mitigation policy (new as of 2016)
- <https://www.federalregister.gov/documents/2018/07/30/2018-16172/fish-and-wildlife-service-mitigation-policy>

More importantly, even with a lag time for comments and finalization of this new rule, how will this affect the agency's commenting on the pending 1002 DEIS review?

Parallel to this is how will the new language of implementing regulations for the Endangered Species Act affect the agency's commenting on the pending DEIS review? See - <https://www.federalregister.gov/documents/2018/07/30/2018-16171/angered-and-threatened-species-angered-species-act-compensatory-mitigation-policy>

If this does not affect the Service now, how will it in the future for pending actions or decisions that might require mitigation considerations?

Please advise.

John

From: [Damberg, Doug](#)
To: [Berendzen, Steve](#)
Cc: [Mitch Ellis](#); [Joanna Fox](#); [Lor, Socheata](#); [Joshua Rose](#); [John Trawicki](#); [Loya, Wendy](#)
Subject: Re: Seismic Monitoring on the 1002 Area
Date: Tuesday, July 31, 2018 10:34:37 AM

Steve:

Thanks for providing your insights ^{b5-DP}

[REDACTED] . We will be sure to share this information and need with our leadership.

Thanks,

d

Doug Damberg
Refuge Supervisor, AK North Zone
U.S. Fish and Wildlife Service
1011 E. Tudor Rd.; Anchorage, AK 99503
Office: (907) 786-3329
Cell: (907) 947-6302

On Fri, Jul 27, 2018 at 4:48 PM, Berendzen, Steve <steve_berendzen@fws.gov> wrote:

Doug,

After spending some time in the interior of the 1002 Area last week on the ground and flying in helicopter and fixed wing aircraft, my concerns ^{b5-DP}

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

b5-DP

Steve Berendzen
Refuge Manager, Arctic National Wildlife Refuge
907-456-0253