

**From:** [Wendy Loya](mailto:Wendy.Loya)  
**To:** [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)  
**Subject:** FW: Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit  
**Date:** Friday, February 23, 2018 9:48:39 AM  
**Attachments:** [BP17006 Collaborative Management in AK.docx](#)  
[BP-D-Polar Bear Viewing R7.pdf](#)  
[2018 Information Memo Template.docx](#)  
[02.12.18 BP Polar Bear Research - Updated 02.20.18.docx](#)  
[02.12.18 BP Attachment - Polar Bear Info Needs.docx](#)  
[1.8.18 R7 FES interactions with ConocoPhillips AK- BP\\_MC.docx](#)  
[Oct 2017 BP - International Porcupine Caribou Board-draft.docx](#)

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FYI

**From:** Lor, Socheata [mailto:[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)]  
**Sent:** Thursday, February 22, 2018 1:36 PM  
**To:** Mitch Ellis; John Trawicki; Wendy Loya; Brady, Stephanie; Johnson, Carl; Berendzen, Steve  
**Cc:** Doug Damberg; Ronnie Sanchez; Ameer Howard  
**Subject:** Fwd: Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit

All,

Looks like we need to put our heads together to get the BPs prepared/updated.

Carl will be the acting for me next week while I'm at the Chiefs meeting, so he will be the POC for Refuge BPs.

Wendy/John/Steve/Stephanie: a BP for the Arctic 1002?

Mitch/Doug, the Porcupine Caribou BP (attached) is recent. Do you see any updates?

Ameer/Ronnie, Izembek road/land exchange is not on the list - should we prepare a BP anyway in case?

**Soch**

~~~~~  
*Socheata Lor, Ph.D.*  
*Acting 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*  
~~~~~

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

**From:** Howard, Ameer <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>  
**Date:** Thu, Feb 22, 2018 at 11:55 AM  
**Subject:** Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit

To: Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Patrick Lemons <[Patrick\\_Lemons@fws.gov](mailto:Patrick_Lemons@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Jenifer Kohout <[Jenifer\\_Kohout@fws.gov](mailto:Jenifer_Kohout@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Thomas Doolittle <[thomas\\_doolittle@fws.gov](mailto:thomas_doolittle@fws.gov)>, "Damberg, Doug" <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>  
Cc: Gregory Siekaniec <[gregory\\_siekaniec@fws.gov](mailto:gregory_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>

Hi All,

The request below is from Steve Wackowski regarding Briefing Papers for an upcoming visit by Deputy Secretary David Bernhardt and Assistant Secretary for Lands and Minerals - Joe Balash. They are scheduled to be in Alaska March 4th through March 9th.

Steve has requested briefing memos from all DOI agencies. Below, I have highlighted the list items where we are identified. I have also attached relevant briefings that we have already crafted that may be easy to update or borrow information from. We will definitely need to bring the Arctic Refuge team into the mix as well.

Greg has asked that I help coordinate this effort. Steve has requested that BPs be sent directly to Leisa Monson at his office by COB March 1st. I am not certain where that puts us for our process. Do we need to run these through DTS to Headquarters or can will they be approved here only?

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If HQ needs to approve, then we will need to adjust the timeline accordingly, please advise.

Special Note\*\* Next week - Karen, Sara, Mary, and Soch will all be on travel for meetings. I will be on leave starting Wednesday, Feb 28th.

Thanks so much!  
Amee

On Feb 21, 2018, at 6:38 PM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Team Alaska-

My apologies to blanket you all with another large request. Can we get some briefing papers from you all on the following for the DepSec during our travels? These are all on topics that I think will come up during our visits at the locations below... if I am missing something please let me know. Feel free to collaborate if and when it makes sense. One page or less is fine on each topic.

Please get these to Lesia by **COB Thursday, March 1st**, so we can get them into DepSec/ASLM's home packs before their trip.

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BIA/FWS: BIE, IHS, transpo, and any other engagement with the tribe

### **Kaktovik**

USGS/FWS: Southern Beaufort Sea Polar Bear science update--I realize no hard data is out yet, but it will be good to get any initial results or a rundown of your plans (map of where the dens you've found so far would be great)

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FWS/SOL: Year round OTV use in the refuge (why that can't be authorized and what is a potential solution for the community)

FWS: Subsistence limits to 30 day hunting season around village (I'll forward you a separate email on this)

FWS: Permitting ASTAC cell tower on old dew line site radar--specifically why we are delaying

BLM: Status of Native Allotments for tribal members (I will get some more gouge on this in the next day or so)

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BIA: Information on ability to compact with NVK to provide for a community liason

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BOEM: State of engagement with AEWG on Liberty

BOEM: History of whaling setback (including maps) this applies for interested parties in Kaktovik and Nuiqsut

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BLM/FWS/BIA: Any ongoing issues with ICAS or

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BIA: low income senior housing issues (Lynn lets discuss)

**Spy Island**

BSEE: Background on permits, Christmas day well spud and engagement with ENI

**Nome**

BOEM: OCS in Bering Sea and surrounding areas/background on engagement with interest groups/tribes there

BIA: Transportation efforts with Kawearek and any other engagements

Thanks in advance for doing this... I know its a lot of work but DepSec is a voracious consumer of information and all of this will be read.

My Best,

Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
[907-271-5485](#)

--

*Amee Howard*

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**From:** [Damberg, Doug](#)  
**To:** [Lor, Socheata](#)  
**Cc:** [Mitch Ellis](#); [John Trawicki](#); [Wendy Loya](#); [Brady, Stephanie](#); [Johnson, Carl](#); [Berendzen, Steve](#); [Ronnie Sanchez](#); [Amee Howard](#)  
**Subject:** Re: Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit  
**Date:** Friday, February 23, 2018 11:31:56 AM  
**Attachments:** [Arctic NWR \(Feb 2018\) oil gas development R7 comments Final.docx](#)

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Soch:

I took a look at the IPCB BP. Although Amee included it as an attachment, I didn't see that Steve W asked for anything specific to the Porcupine caribou herd, so in that context, what Amee already has should be sufficient. The one piece it is missing is the status of the U.S. board members, but in the past we had decided to not include that detailed information in the BP.

We developed a BP for Arctic 1002 oil and gas recently and I'm attaching the most final version I saw so we don't have to recreate the wheel.  
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

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Date: Thu, Feb 22, 2018 at 11:55 AM

Subject: Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit

To: Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Patrick Lemons <[Patrick\\_Lemons@fws.gov](mailto:Patrick_Lemons@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Jenifer Kohout <[Jenifer\\_Kohout@fws.gov](mailto:Jenifer_Kohout@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Thomas Doolittle <[thomas\\_doolittle@fws.gov](mailto:thomas_doolittle@fws.gov)>, "Damberg, Doug" <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Cc: Gregory Siekaniec <[gregory\\_siekaniec@fws.gov](mailto:gregory_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>

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Thanks in advance for doing this... I know its a lot of  
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information and all of this will be read.

My Best,

Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](mailto:Steve.Wackowski@DOI.gov)  
[Anchorage, AK 99508](mailto:Steve.Wackowski@DOI.gov)

[907-271-5485](tel:907-271-5485)

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***Amee Howard***

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

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Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

["Day in the Office"](#)

**From:** [Wendy Loya](#)  
**To:** [Richard Lanctot](#); [Stephen Arthur](#); [Jenifer Kohout](#)  
**Cc:** [Mary Colligan](#); [Eric Taylor](#)  
**Subject:** Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Thursday, March 1, 2018 5:54:04 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies 032018.xlsx](#)  
**Importance:** High

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Hi Rick, Jennifer, Steve,

I am writing you with two requests, rolled into one. The deadline is Friday March 9<sup>th</sup> so that I can collate and provide to RD office on 12<sup>th</sup> for review and submission to Department by March 14<sup>th</sup>.

- The required request from the Department is for a list of studies currently or to be (2018) led by FWS occurring in the “Eastern half of the US Arctic”. The other request is from NSSI for the Annual North Slope Studies Review, which includes all of the north slope and Arctic waters.

Clearly these requests overlap so I am asking for all one list. Last year you three provided the information needed for NSSI; it is attached included in the 2018 workbook for your reference. This year, I have made a new spreadsheet which captures both the Department and NSSI request, which includes a few additional questions. If you could please fill it out to the best of your abilities. The full list will go to the Department and NSSI catalog (Current FWS Records [here](#)). I will select a few of the total studies to present at the NSSI meeting on March 20th, likely those relating to oil and gas development on the slope as the meeting will include industry.

Thank you for your help. Please ask any questions right away, I am out of the office March 5-9<sup>th</sup> without email access. I can follow up the morning of the 12<sup>th</sup> for any last minute concerns/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)  
907.227.2942 (mobile)

**From:** [Jacobson, Cynthia](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Fwd: Arctic Science data call  
**Date:** Thursday, March 1, 2018 1:42:06 PM  
**Attachments:** [USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx](#)

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

From: **Wackowski, Stephen** <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
Date: Wed, Feb 21, 2018 at 4:56 PM  
Subject: Arctic Science data call  
To: Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, James Kendall <[james.kendall@boem.gov](mailto:james.kendall@boem.gov)>, Mark Fesmire <[mark.fesmire@bsee.gov](mailto:mark.fesmire@bsee.gov)>, Lynn Polacca <[lynn.polacca@bia.gov](mailto:lynn.polacca@bia.gov)>, Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>  
Cc: "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>

Team-

Just a follow up on Dep Sec's data call for Arctic research activities. Could you please use the attached excel as a template (adding one more column for anticipated publish or data release date) for all of your scientific research and enforcement actions that may have impacts to the eastern half of the US Arctic.

This includes subsistence research/enforcement, any science grants to the state or academia, or any international treaty work.

Jim/Mark- For your agencies this should focus on near shore/terrestrial, i.e. Polar Bear.

Can this get done in the next three weeks? This is a priority. If any of your DC offices delay the response to this data call please let me and your respective Assistant Secretaries (cc'd) know.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
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[Anchorage, AK 99508](#)  
907-271-5485

--

**Cynthia Jacobson, Ph.D.**  
**Chair, CAFF Working Group**

0000011496

Alaska Region  
**U.S. Fish and Wildlife Service**  
**1011 E. Tudor Road**  
**Anchorage, AK 99503**  
**907-786-3508**  
[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)

**From:** [Wendy Loya](#)  
**To:** [Cynthia Jacobson](#)  
**Subject:** RE: Arctic Science data call  
**Date:** Thursday, March 1, 2018 2:04:06 PM

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Hi Cindi,

I think this is pretty clear about looking for science related to the "eastern half of the US Arctic". The USGS list provided was specific to 1002 area. I think if there were CAFF activities that included Research Activities in this realm it could be included, but I perceive CAFF to be the vehicle for circumarctic information sharing rather than providing for specific outcomes in a limit geography (e.g. 1002 area).

I did not receive this specific email, but I was aware that FWS R7 was asked to populate a similar spreadsheet as USGS, and I am planning to send out the request to the region by COB tomorrow (I was unaware of the 3 week deadline and we are one week in). I will try to get it out today and include you in the request so you can add if you see fit.

Thanks! Hope that helps...

Wendy

**From:** Jacobson, Cynthia [mailto:[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)]  
**Sent:** Thursday, March 1, 2018 11:42 AM  
**To:** Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Fwd: Arctic Science data call

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**Cc:** "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>

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**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** FW: Arctic Science data call  
**Date:** Thursday, March 1, 2018 5:04:10 PM  
**Attachments:** [USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx](#)

---

Hi Greg,

Mary had raised the need for us to prepare a list of FWS research in the 1002 area last Wednesday at 1pm (in similar format as one USGS had prepared), and then I believe this email came in at 5pm from Steve Wackowski. I was not aware of the email and deadline until today when someone else forwarded it. I am putting out this request to regional contacts today, and including a few questions/columns in a similar request from NSSI for the Annual Studies Meeting to be held March 20th. I am interpreting the 3 week deadline as March 14<sup>th</sup>, so will try to get to you by COB on March 12<sup>th</sup> for review. I am out of the office March 5-9<sup>th</sup>, and John Trawicki will take on any regional communications on 1002 that 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)

907.227.2942 (mobile)

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**Date:** Wed, Feb 21, 2018 at 4:56 PM

**Subject:** Arctic Science data call

**To:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, James Kendall <[james.kendall@boem.gov](mailto:james.kendall@boem.gov)>, Mark Fesmire <[mark.fesmire@bsee.gov](mailto:mark.fesmire@bsee.gov)>, Lynn Polacca <[lynn.polacca@bia.gov](mailto:lynn.polacca@bia.gov)>, Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>

**Cc:** "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>

Team-

Just a follow up on Dep Sec's data call for Arctic research activities. Could you please use the attached excel as a template (adding one more column for anticipated publish or data release date) for all of your scientific research and enforcement actions that may have impacts to the eastern half of the US Arctic.

This includes subsistence research/enforcement, any science grants to the state or academia, or any international treaty work.

0000011500



Jim/Mark- For your agencies this should focus on near shore/terrestrial, i.e. Polar Bear.

Can this get done in the next three weeks? This is a priority. If any of your DC offices delay the response to this data call please let me and your respective Assistant Secretaries (cc'd) know.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

**From:** [Lanctot, Richard](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Stephen Arthur](#); [Jenifer Kohout](#); [Mary Colligan](#); [Eric Taylor](#)  
**Subject:** Re: Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Friday, March 2, 2018 5:53:21 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies 032018\\_RL edits.xlsx](#)

---

Hi Wendy,

Here is a first cut at work being done on migratory shorebirds on the North Slope in 2018. I had to guess on money since all the studies involve multiple FWS offices and lots of partners.

Steve - I put something in for Chris Latty's camp on the Canning.

I am at a meeting all next week in Oregon and then on leave the following week.

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](mailto:richard_lanctot@fws.gov)

\*\*\*\*\*

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

On Thu, Mar 1, 2018 at 3:54 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Rick, Jennifer, Steve,

I am writing you with two requests, rolled into one. The deadline is Friday March 9<sup>th</sup> so that I can collate and provide to RD office on 12<sup>th</sup> for review and submission to Department by March 14<sup>th</sup>.

- The required request from the Department is for a list of studies currently or to be (2018) led by FWS occurring in the "Eastern half of the US Arctic". The other request is from NSSI for the Annual North Slope Studies Review, which includes all of the north slope and Arctic waters.

Clearly these requests overlap so I am asking for all one list. Last year you three provided

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Thank you for your help. Please ask any questions right away, I am out of the office March 5-9<sup>th</sup> without email access. I can follow up the morning of the 12<sup>th</sup> for any last minute concerns/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)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Lanctot, Richard](#)  
**Subject:** Re: Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Friday, March 2, 2018 6:06:11 PM

---

Thank you Rick!

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
[907.786.3532](tel:907.786.3532) (office)  
[907.227.2942](tel:907.227.2942) (mobile)

On Mar 2, 2018, at 15:53, Lanctot, Richard <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)> wrote:

Hi Wendy,

Here is a first cut at work being done on migratory shorebirds on the North Slope in 2018. I had to guess on money since all the studies involve multiple FWS offices and lots of partners.

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Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

Studies 032018\_RL edits.xlsx>

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Thursday, March 8, 2018 3:22:42 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies 032018 ANWR.xlsx](#)

---

Here is the table for Arctic Refuge. Let me know if you need any more info.

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, Mar 1, 2018 at 3:54 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)



**From:** [Wendy Loya](#)  
**To:** [Mary Colligan](#)  
**Subject:** FW: Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Monday, March 12, 2018 1:39:42 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies 032018.xlsx](#)  
**Importance:** High

---

Hi Mary,

If you can find someone to help me with this combined spreadsheet, that would be great. Steve Wackowski has asked for the information in columns A-L by 14<sup>th</sup>. Columns M-P pertain to the NSSI data call, which I combined with this effort. If I could get this by Wednesday 3/14 morning, I can prepare for Greg to submit to Steve W by COB.

Typically this is a programmatic budget sheet copied and pasted, so may not be a lot of work. I have included last year's list so you can see what FES submitted in 2017.

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)  
907.227.2942 (mobile)

---

**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Thursday, March 1, 2018 3:54 PM  
**To:** Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>; Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>; Jenifer Kohout <[jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)>  
**Cc:** Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>; Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>  
**Subject:** Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Importance:** High

Hi Rick, Jennifer, Steve,

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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)  
907.227.2942 (mobile)

**From:** [Colligan, Mary](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Date:** Tuesday, March 13, 2018 10:35:42 AM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies 032018 FES.xlsx](#)

---

Wendy - Sorry for the delay from FES and thanks for your understanding. I have attached the updates as provided by Sarah Conn and Patrick Lemons. Please let us know if you have any questions or need any additional information.

Thanks,  
Mary

On Mon, Mar 12, 2018 at 11:39 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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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)

907.227.2942 (mobile)

**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Thursday, March 1, 2018 3:54 PM  
**To:** Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>; Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>; Jenifer Kohout <[jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)>  
**Cc:** Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>; Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>  
**Subject:** Due March 9th: Department Data Call for 1002; and NSSI Annual Studies Meeting  
**Importance:** High

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907.786.3532 (office)

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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:** [Julian Fischer](#)  
**Subject:** Quick Questions: Data Call for North Slope Studies  
**Date:** Tuesday, March 13, 2018 12:33:17 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies DRAFT 031318.xlsx](#)  
**Importance:** High

---

Hi Julian,

I understand you are at a conference, but I am hoping you can help me fill in two rows of the attached table. It is for a data call from Steve Wackowski and NSSI (combined requests). I need to know a little more information about the ACP Coastal Plain Breeding Pair Survey (Row 28) and Teshekpuk Lake Goose Survey (Row 29) in the attached spreadsheet. You can see the columns that are empty, with the filled columns coming from the information you or Rick Lanctot provided for 2017.

If you are not able to open excel, let me know and I can go to Eric or Rick for the remaining information requested. I would like to get this to Greg Siekaniec COB today, but can add your information upon receipt if after.

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)  
907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** RE: Arctic Science data call  
**Date:** Wednesday, March 14, 2018 10:13:06 AM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call and NSSI Annual Studies 031418.xlsx](#)

---

Hi Greg and Karen,

Attached is the Regional FWS research planned for 2018 on the north slope. This spreadsheet is in reply to a data call from Steve Wackowski in the email at the bottom. There are additional columns from what USGS reported because we also got a request from NSSI for this information plus a few additional questions. I can explain in person about that meeting/database.

The spreadsheet is due to Steve COB today.

Talk to you soon, Greg,  
Wendy

Dr. Wendy M. Loya,  
Arctic Program Coordinator, Office of Science Applications  
US Fish and Wildlife Service  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

---

**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Thursday, March 1, 2018 3:04 PM  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>; Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>  
**Subject:** FW: Arctic Science data call

Hi Greg,

Mary had raised the need for us to prepare a list of FWS research in the 1002 area last Wednesday at 1pm (in similar format as one USGS had prepared), and then I believe this email came in at 5pm from Steve Wackowski. I was not aware of the email and deadline until today when someone else forwarded it. I am putting out this request to regional contacts today, and including a few questions/columns in a similar request from NSSI for the Annual Studies Meeting to be held March 20th. I am interpreting the 3 week deadline as March 14<sup>th</sup>, so will try to get to you by COB on March 12<sup>th</sup> for review. I am out of the office March 5-9<sup>th</sup>, and John Trawicki will take on any regional communications on 1002 that 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)  
907.227.2942 (mobile)

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

From: **Wackowski, Stephen** <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>

Date: Wed, Feb 21, 2018 at 4:56 PM

Subject: Arctic Science data call

To: Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, James Kendall <[james.kendall@boem.gov](mailto:james.kendall@boem.gov)>, Mark Fesmire <[mark.fesmire@bsee.gov](mailto:mark.fesmire@bsee.gov)>, Lynn Polacca <[lynn.polacca@bia.gov](mailto:lynn.polacca@bia.gov)>, Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>

Cc: "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>

Team-

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This includes subsistence research/enforcement, any science grants to the state or academia, or any international treaty work.

Jim/Mark- For your agencies this should focus on near shore/terrestrial, i.e. Polar Bear.

Can this get done in the next three weeks? This is a priority. If any of your DC offices delay the response to this data call please let me and your respective Assistant Secretaries (cc'd) know.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

0000011516



**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** Spreadsheet of FWS R7 Northslope Research for 2018 for S. Wackowski  
**Date:** Thursday, March 15, 2018 10:41:20 AM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call and NSSI Annual Studies 031518.xlsx](#)

---

Good morning Greg and Karen,

I have added a Documentation page to the Excel file containing the list of proposed north slope studies for FWS R7 in 2018 that describes the contents of the list as being determined prior to the passage of the Tax Act and opening of the 1002 area. We can update this list as programs revise their plans.

The current file is renamed with today's date: FWS 2018 North Slope Research DOI 1002 Data Call and NSSI Annual Studies 031518.xlsx

This list will also be submitted for the NSSI Annual Studies Review next week.

Thank you,  
Wendy

---

**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 8:13 AM  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>; Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>  
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**Sent:** Thursday, March 1, 2018 3:04 PM  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>; Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>  
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Arctic Program Coordinator, Office of Science Applications  
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907.786.3532 (office)  
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----- Forwarded message -----

**From:** **Wackowski, Stephen** <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Date:** Wed, Feb 21, 2018 at 4:56 PM  
**Subject:** Arctic Science data call  
**To:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, James Kendall <[james.kendall@boem.gov](mailto:james.kendall@boem.gov)>, Mark Fesmire <[mark.fesmire@bsee.gov](mailto:mark.fesmire@bsee.gov)>, Lynn Polacca <[lynn.polacca@bia.gov](mailto:lynn.polacca@bia.gov)>, Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>  
**Cc:** "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>

Team-

Just a follow up on Dep Sec's data call for Arctic research activities. Could you please use the attached excel as a template (adding one more column for anticipated publish or data release date) for all of your scientific research and enforcement actions that may have impacts to the eastern half of the US Arctic.

This includes subsistence research/enforcement, any science grants to the state or academia, or any international treaty work.

Jim/Mark- For your agencies this should focus on near shore/terrestrial, i.e. Polar Bear.

Can this get done in the next three weeks? This is a priority. If any of your DC offices delay the response to this data call please let me and your respective Assistant Secretaries (cc'd) know.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

**From:** [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)  
**To:** [paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)  
**Cc:** [wendy\\_Loya@fws.gov](mailto:wendy_Loya@fws.gov)  
**Subject:** RE: [EXTERNAL] Re: Updating the Sensitive Habitats of Porcupine Caribou  
**Date:** Thursday, April 26, 2018 12:08:44 PM  
**Attachments:** [YukonNS\\_PEM\\_2017\\_12\\_22\\_700K\\_lowres\\_20170106.pdf](#)  
[WMAC\\_NorthSlopeUpdate\\_20170508.pdf](#)

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Here is a map of our recent project area. Ivavik and Vuntut National Parks are mapped using the same technique. The conceptual pieces for the larger program can be found here:  
[http://www.env.gov.yk.ca/animals-habitat/elcprogram\\_projects.php](http://www.env.gov.yk.ca/animals-habitat/elcprogram_projects.php)

We do have an Arctic Vegetation Associations for the Territory on which the map was based and of course the final report for the creation of this product. They are both quite large so I couldn't email but I can send if you want to see more. In the intern I've also attached a pdf of a presentation given to one of the wildlife management councils that drove this (Wildlife Management Advisory Council North Slope). Some slides probably won't make much sense but others give you a sense of the approach. Please do not distribute widely!

Let me know if you have any further questions.

M.

**From:** Leonard, Paul [mailto:[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)]  
**Sent:** Tuesday, April 10, 2018 2:10 PM  
**To:** Mike.Suitor <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)>  
**Cc:** Wendy Loya <[wendy\\_Loya@fws.gov](mailto:wendy_Loya@fws.gov)>  
**Subject:** Re: [EXTERNAL] Re: Updating the Sensitive Habitats of Porcupine Caribou

Hi Mike,

Thanks for the document and productive call yesterday. I've been tracking down some information regarding human footprint this morning. I'm attaching what I believe to be the most current line work available for the refuge.

Please find attached shapefiles.

There are at least 2 ongoing coarse-scale looks at human footprint that span the entire state of Alaska -- and might be of interest. I will review these projects and any others that I uncover and circle back with you about their potential utility.

Cheers,  
Paul

On Tue, Apr 10, 2018 at 11:32 AM, <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)> wrote:

Hi Paul and Wendy,

Here is the historic document I referred to on the Movements and Distributions of the PCH 1970-

1990. We will have the updated version to present available shortly and this forms the basis of the Sensitive Habitats update.

Mike

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**From:** Paul Leonard [mailto:[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)]  
**Sent:** Monday, April 09, 2018 12:05 PM  
**To:** Mike.Suitor  
**Subject:** Re: [EXTERNAL] Re: Updating the Sensitive Habitats of Porcupine Caribou

Hi Mike,

I'm available for the next hour or so today and then my schedule is fairly open tomorrow and Thursday.

If today works feel free to give me a buzz @ 907.456.0445

Cheers,  
Paul

Paul Leonard, PhD  
Science Coordinator  
Arctic Landscape Conservation Cooperative  
101 12th Ave. Room 216  
Fairbanks, AK 99709  
(907) 456-0445

On Apr 9, 2018, at 8:12 AM, <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)> <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)> wrote:

Hi Paul, maybe we could discuss on the phone later today or this week?

Mike Suitor  
Regional Biologist, North Yukon Region  
Fish and Wildlife, Environment Yukon  
(867) 993-6461

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**From:** Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>  
**Sent:** Wednesday, April 4, 2018 4:02 PM  
**To:** Mike.Suitor  
**Subject:** Re: Updating the Sensitive Habitats of Porcupine Caribou

Hi again Mike,

We were having some internal discussions at FWS the other day and there is a lot of interest in this work. We are trying to wrap our heads around the scope of work that has been done so we can better plan for other caribou priorities. I know you mentioned that you were hoping to hand off a draft for PCTC review but I was curious if there is a way that you could pass along an abstract?

Feel free to give a shout to discuss if that would be easier.

Cheers,  
Paul

On Wed, Mar 7, 2018 at 4:59 PM, <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)> wrote:  
You bet Paul. Ill put some thought into other products that need developing. I am working to develop habitat models for the herd right now

Mike Suitor  
Regional Biologist, North Yukon  
Fish and Wildlife, Environment Yukon  
(867) 993-6461

On Mar 7, 2018, at 3:18 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hi Mike,

Wow, This is great news!!

Perhaps we can move the discussion to focusing on another PCH priority!

If you wouldn't mind, could you keep me updated on the progress of the report?

Cheers,  
Paul

On Wed, Mar 7, 2018 at 2:12 PM, <[Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca)> wrote:

Hi Paul, better than thinking about doing it, we've pretty much done it! All of the data crunching is complete, maps are. Holy, research is done. We do have to build one footprint map for anthropogenic activities but beyond that we will be in draft review with the members of the pctc. Thanks for the note though!

Mike Suitor  
Regional Biologist, North Yukon  
Fish and Wildlife, Environment Yukon  
(867) 993-6461

On Mar 7, 2018, at 1:09 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hi Mike,

When talking with Brad Griffith yesterday he

mentioned that at some point in the past you were involved with discussions to update the 1993 report titled '[Sensitive Habitats of The Porcupine Caribou Herd](#)'

We have advanced the idea of updating this report with telemetry information from the past decade + and I thought I'd circle around to you and ask about any thinking that went into updating this in the past. Was there ever a scope or work developed or a proposal?

Feel free to give me a buzz if you'd prefer a phone conversation. Number in signature.

Thanks so much!

And just FYI; We are making a funding request to help accomplish this work and Steve Arthur has suggested we work with the PCTC to help identify potential folks who might lead this work and develop the idea further.

Cheers,  
Paul

--

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
[101 12th Ave. Room 216](#)  
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**From:** [Stotyn Shannon \(EC\)](#)  
**To:** Deana Lemke; Don Russell ([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Édouard Bélanger; Heather Savine-Crawford; Mcdonald2 Jan (PC); John.Ryder@[gov.yk.ca](mailto:gov.yk.ca); Julia Ahlgren; Karin Clark; Kyle.Russell@[gov.yk.ca](mailto:gov.yk.ca); Marsha Branigan@[gov.nt.ca](mailto:gov.nt.ca); Martin.Kienzler@[gov.yk.ca](mailto:gov.yk.ca); Leblond3 Mathieu (EC); Mike.Suitor@[gov.yk.ca](mailto:gov.yk.ca); beth.lenart@[alaska.gov](mailto:alaska.gov); Brad Griffiths ([dbgriffith@alaska.edu](mailto:dbgriffith@alaska.edu)); jason.caikoski@[alaska.gov](mailto:alaska.gov); Paul Leonard; Steve Arthur; Wendy Lova; anne.gunn (b) (6); John Nishi; Kim Poole; Mary Gamberg; Susan Kutz; jhepler3@[alaska.edu](mailto:alaska.edu); jelle.taillon@[mffp.gouv.qc.ca](mailto:mffp.gouv.qc.ca); john@[nishi.ca](mailto:nishi.ca); boulange@[ecological.bc.ca](mailto:ecological.bc.ca); [ian@ecolabrin.com](mailto:ian@ecolabrin.com); [aprichard@abrin.com](mailto:aprichard@abrin.com); Worthington Lisa (EC); Joel.Potie@[gov.yk.ca](mailto:gov.yk.ca); (b) (6)  
**Cc:** John Glynn Morris (b) (6); Mächitans Craig (EC)  
**Subject:** [EXTERNAL] PCH Workshop / May 16-17th / Agenda, meeting location, call-in information and background documents  
**Date:** Sunday, May 6, 2018 3:02:36 PM  
**Attachments:** [SawyerEtAl\\_MuleDeerEnergyDevelopHabitAbund\\_2017.pdf](#)  
[Initial Scoping and Annotated Bibliography - Barren-ground Caribou Respo....pdf](#)  
[PCHWorkshop\\_May16\\_17\\_2018\\_FullAgenda\\_20180506.docx](#)

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Hello,

Thanks everyone for coming to Whitehorse in a couple weeks (May 16-17<sup>th</sup>). I hope it will be spring by then! Mike and I have put together an agenda together that was designed to both inform and to encourage discussion through a series of 15 minute presentations (+ 10 minutes for immediate questions) followed by workshop sessions on the background, impacts, monitoring and mitigation of possible development on the Porcupine caribou herd. We hope this information will prove useful for consideration in your future planning and assessment processes. If you are unable to attend in person we have WebEx and teleconference capability available throughout the duration of the workshop.

We have a lot of material to cover and limited time to do so. If you have suggestions on key areas of discussion for the workshop under each subheading, please send along to us and we will try to ensure the sessions are scoped appropriately based on our thoughts and your feedback. Please note that the titles provided for the talks are rough as the agenda continues to tweak a bit given the tight timelines we've pulled this together on. We anticipate what we have on the agenda will be about right though!

To help you prepare for the meeting, we are also attaching the following:

- An annotated bibliography of barren-ground caribou responses to disturbance (attached)
- A paper by Hall Sawyer (attached). Hall's presentation will be based on this paper but will expand from it discussion will help us understand a major oil and gas development in western Wyoming and provide us insight on what worked and what didn't work well over 17 years of monitoring and management there. The science completed for large mammal communities associated with that development was one of the better case examples with regard to major oil and gas developments in North America, even though the outcome was not a positive one for wildlife.
- "Summary of wildlife-related research on the Coastal Plain of the ANWR, Alaska" provides background information on what is available based on recent research (2002-2017). <https://pubs.usgs.gov/of/2018/1003/ofr20181003.pdf>
- The annual summary report completed for the PCH by the Porcupine Caribou Technical Committee is found here. This document focuses on monitoring metrics used to better understand population trends.  
<http://pcmb.ca/PDF/ahm/2018%20Annual%20Harvest%20Meeting%20Documents/2017%20PCH%20Annual%20Summary%20Report.pdf>
- There are a host of other documents for the herd available at [www.PCMB.ca](http://www.PCMB.ca) under the Resources/Tools tab if you have a bunch of extra time!

Looking forward to a very informative workshop and seeing everyone on May 16-17<sup>th</sup>! Just a reminder that Canadian participants will be meeting again on May 18<sup>th</sup>; an agenda and meeting information for that day will follow shortly.

Thanks again,

Shannon and Mike

### 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](mailto: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](http://www.ec.gc.ca)

### Shannon Stotyn

Biologiste d'Espèces en Péril  
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Téléphone 867-667-3929

Cellulaire: 867-333-9891  
Télécopieur 867-393-7970  
Gouvernement du Canada  
Site Web [www.ec.gc.ca](http://www.ec.gc.ca)

**From:** [Miriam \(Nicole\) Hayes](#)  
**To:** [Castellanos, Gilbert](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Contacts at State Dept for IPCB?  
**Date:** Wednesday, May 9, 2018 4:11:01 PM

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Thank you both.  
Nicole

Sent from my iPad

On May 8, 2018, at 3:25 PM, Castellanos, Gilbert <[gilbert\\_castellanos@fws.gov](mailto:gilbert_castellanos@fws.gov)> wrote:

Hi Wendy and Nicole,

Yes, there are several people that I previously coordinated with at the Department of State regarding the IPCB. Here's their brief background and email contact info below, let me know if you need anything more. I should also say, I have also coordinated closely with Ryan Close in the DOI Office of International Affairs on IPCB issues in the past. Hope this is helpful.

Cheers,

Gil-

- Adrianna Muir, she's actually attended IPCB meetings in the past on behalf of the DOS and is very helpful, and she serves as the Deputy Senior Arctic Official, she's actually currently working from here in AK for the next several months. Her email is: [MuirAA@state.gov](mailto:MuirAA@state.gov)
- Elizabeth (she goes by Lisa) Phelps, oversees biodiversity issues like whales, polar bears and caribou. Her email is: [PhelpsE@state.gov](mailto:PhelpsE@state.gov)
- Gabriel Swiney from the DOS legal office, his email is: [SwineyG@state.gov](mailto:SwineyG@state.gov)
- Miriam Murray (Awad) works on the Canada Desk covering Energy & Environment, her email is: [AwadML@state.gov](mailto:AwadML@state.gov)

On Tue, May 8, 2018 at 3:05 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Gil,

Nicole Hayes, the Project Manager at BLM for the Coastal Plain EIS, has been asked by the Canadian organizers of the upcoming meeting to share an overview of the EIS process. Nicole is looking for a responsive contact at the State Department to discuss this with, do you have contact info for anyone you can share with her that understands the ICPB or the Agreement she could connect with?

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)

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Gilbert Castellanos  
International Affairs Specialist

U.S. Fish and Wildlife Service - Alaska Region  
Office of International Conservation  
1011 E. Tudor Road, MS 281  
Anchorage, Alaska 99503

E-mail: [Gilbert\\_Castellanos@fws.gov](mailto:Gilbert_Castellanos@fws.gov)  
Phone: 907-786-3850  
Fax: 907-786-3303

**From:** [Wilder, James](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Patrick Lemons](#); [Mary Colligan](#)  
**Subject:** Re: FYI - Correspondence regarding ANWR  
**Date:** Thursday, August 30, 2018 11:56:46 AM

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Thanks Wendy.

No comment on caribou, but for polar bear I would say:

Canada requested that the analysis of the proposed activities should include a description of the potential for increased human-bear interactions and incidental take of polar bears, due to the fact that bears are spending more time on land due to sea ice loss, and that any additional human-caused polar bear mortality is a conservation threat to the subpopulation which is currently considered to be in decline.

Further, Canada requested that the analysis of the proposed activities include a description of the potential loss of maternity denning habitat and impacts to reproductive success that could result from disturbance (including during seismic exploration). The note that an increasing proportion of polar bears in this subpopulation now den on land due to sea ice loss.

On Thu, Aug 30, 2018 at 8:01 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Jim,

I offer the suggestion below for capturing Canada's concerns on polar bears from the scoping letter attached to Mary's email yesterday

From page 5 of the Canada scoping letter, I derived this. Let me know if you suggest something different (including Caribou for full context):

**Canada**

Has a strong interest on activities that could affect the international Porcupine Caribou Herd, which has been expressed through the Porcupine Conservation Agreement requiring notifications on activities that could affect the herd

Concerned that activities may conflict with two bilateral conservation agreements, as additional human-caused polar bear mortality would be a significant impact on top of dramatic sea-ice decline.

Thanks! Hoping to send this back to External Affairs at 930am this morning.

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator

Office of Science Applications, US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>

**Sent:** Wednesday, August 29, 2018 5:04 PM

**To:** Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

**Cc:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; James Wilder <[james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)>

**Subject:** Re: FYI - Correspondence regarding ANWR

We'll take care of it Mary. I'll see if Jim can get this done before heading off on leave tomorrow late morning.

Patrick

On Wed, Aug 29, 2018 at 5:01 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

This is what I was referring to when we spoke earlier. Maybe Jim can put together a sentence/bullet? If not, I can do it tonight but probably can't send it to you until tomorrow due to connectivity challenges.

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

**From:** **Castellanos, Gilbert** <[gilbert\\_castellanos@fws.gov](mailto:gilbert_castellanos@fws.gov)>

**Date:** Tue, Jun 19, 2018 at 2:07 PM

**Subject:** Fwd: FYI - Correspondence regarding ANWR

**To:** Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>

Hi Mary and Eric,

Upon reading the Dip note and the EIS submission from Canada, I see Mig birds and Polar Bear are also specifically mentioned so I wanted to share these with you for your situational awareness.

Let me know if you have any questions.

Gilbert-

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

From: **Castellanos, Gilbert** <[gilbert\\_castellanos@fws.gov](mailto:gilbert_castellanos@fws.gov)>  
Date: Tue, Jun 19, 2018 at 1:55 PM  
Subject: Fwd: FYI - Correspondence regarding ANWR  
To: Mitch Ellis <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>  
Cc: Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

FYI-

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

From: **Close, Ryan** <[ryan\\_close@ios.doi.gov](mailto:ryan_close@ios.doi.gov)>  
Date: Tue, Jun 19, 2018 at 8:05 AM  
Subject: FYI - Correspondence regarding ANWR  
To: Gloria Bell <[gloria\\_bell@fws.gov](mailto:gloria_bell@fws.gov)>, Gilbert Castellanos <[Gilbert\\_Castellanos@fws.gov](mailto:Gilbert_Castellanos@fws.gov)>, "Strylowski, Colin" <[cstrylowski@blm.gov](mailto:cstrylowski@blm.gov)>, Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>, Victor Heilweil <[heilweil@usgs.gov](mailto:heilweil@usgs.gov)>, Ken Richkus <[ken\\_richkus@fws.gov](mailto:ken_richkus@fws.gov)>, Sarah Mott <[Sarah\\_P\\_Mott@fws.gov](mailto:Sarah_P_Mott@fws.gov)>  
Cc: David Downes <[david\\_downes@ios.doi.gov](mailto:david_downes@ios.doi.gov)>

Good afternoon everyone,

For your awareness, I'm sharing two documents that the USG recently received from Canada pertaining to possible energy development in ANWR. The first is a diplomatic note from Canada to DOS that outlines Canadian concerns about transboundary effects.

The second is a letter from Canada to BLM (with similar content) in response to the notice of intent to prepare an EIS. Both seek consultation on this matter.

I don't have any further information on how DOS/DOI plan to respond to these documents, though Steve Wackowski is meeting with the State Department Canada desk tomorrow, and I presume these notes will be discussed.

I'll share any further information that comes my way.

Thanks,

Ryan

Ryan Close

Office of International Affairs

U.S. Department of the Interior

(202) 208-3004

[www.doi.gov/intl](http://www.doi.gov/intl)

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Patrick Lemons, Ph.D.  
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Fax: [\(907\) 786-3816](tel:(907)786-3816)



Note No. WSHDC-5910

The Embassy of Canada to the United States of America presents its compliments to the Department of State of the United States of America and has the honor to refer to the implementation of provisions in the U.S. Tax Cuts and Jobs Act of 2017 requiring the Secretary of the Interior, acting through the Bureau of Land Management, to establish and administer a competitive oil and gas program for the leasing, development, production, and transportation of oil and gas in and from the Coastal Plain area of the Arctic National Wildlife Refuge (Coastal Plain).

The Government of Canada is concerned about the potential transboundary impacts of oil and gas exploration and development planned for the Coastal Plain, including impacts on shared species that migrate between our countries, as well as impacts on our Indigenous peoples, including their customary and traditional use of Porcupine Caribou. Canada is particularly concerned that proposed developments will have significant, long-term adverse impacts on the Porcupine Caribou herd and its habitat.

To ensure that Canada's concerns are considered, Canada has submitted comments in the public scoping process for the Leasing Environmental Impact Statement (Leasing EIS) to implement an oil and gas leasing program within the Coastal Plain. While Canada welcomes the



opportunity to contribute to the Leasing EIS process, it nevertheless views the process as distinct and separate from the treaty-based mechanisms for cooperation and consultation that Canada and the United States have concluded to protect migratory species. These include the 1987 *Agreement Between the Government of Canada and the Government of the United States of America on the Conservation of the Porcupine Caribou Herd* (Porcupine Caribou Agreement), the 2008 *Memorandum of Understanding between Environment and Climate Change Canada and the United States Department of the Interior for the Conservation and Management of Shared Polar Bear Populations*, and the 1916 *Convention for the Protection of Migratory Birds in the United States and Canada*. Canada and the United States have also both signed the multilateral 1973 *Agreement on the Conservation of Polar Bears*. Consistent with our countries' long history of cooperation and consultation to conserve shared species, as recognized in these agreements, the Government of Canada looks forward with strong interest to working with the United States to further convey our views.

The Government of Canada further notes that under Sec. 1005 of the *Alaska National Interest Lands Conservation Act*, the U.S. Secretary of the Interior is required to consult with the appropriate agencies of the Government of Canada in evaluating impacts of oil and gas exploration particularly with respect to the Porcupine Caribou herd.

Based on our countries' long history of transboundary cooperation for the protection of migratory species and the many instruments put in place to promote such cooperation, we seek your assurances that Canada will be informed and consulted as the leasing and post-lease activities, including seismic and drilling exploration, development, and transportation of oil and



gas in and from the Coastal Plain are considered. To this end Canada, invites United States' officials to meet with Canadian officials in order to provide Canada with information about the planned developments, share views, and identify opportunities for further consultation and sharing of relevant scientific research.

Canada would also like to note that the International Porcupine Caribou Board, formed under the Porcupine Caribou Agreement, is a key bilateral mechanism to advise the Governments of Canada and the United States on the impact of proposed development in the Coastal Plain and to share information and consider actions for the protection of the Porcupine Caribou herd and its habitat. Canada thanks the United States for its work supporting the Board and welcomed the recent news that the two remaining vacancies for U.S. members may be filled by late June and that the board could meet before the end of September. Canada welcomes this and looks forward to the opportunity to discuss this issue with the United States.

The Government of Canada avails itself of this opportunity to renew to the Department of State assurances of its highest consideration.

Washington, June 19, 2018





June 18, 2018

Bureau of Land Management, Alaska State Office  
Attention: Coastal Plain EIS  
222 West 7th Avenue, #13  
Anchorage, AK 99513-7599

This is a submission from the Government of Canada (Canada) in response to the “Notice of Intent to Prepare an Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program, Alaska” published in the U.S. Federal Register on 20 April 2018.

Canada is concerned about the potential transboundary impacts of oil and gas exploration and development planned for the Arctic National Wildlife Refuge (ANWR) Coastal Plain, including impacts on shared species that migrate between our countries, as well as impacts on our Indigenous peoples, including their customary and traditional use of Porcupine Caribou. Canada is particularly concerned that oil and gas exploration and development (including pre- and post-lease activities such as seismic and drilling exploration and transportation of oil and gas from the Coastal Plain) will negatively affect the long-term reproductive success of the Porcupine Caribou herd. This may occur by direct effects such as behavioral changes and physiological stress, and by affecting the habitat that the herd relies on for calving, post-calving, migration and insect relief.

Canada and the United States have a long and successful history of cooperation and coordination for activities that can have transboundary impacts. We have four agreements relating to migratory species that are directly relevant to this issue:

- Porcupine Caribou - the 1987 *Agreement Between the Government of Canada and the Government of the United States of America on the Conservation of the Porcupine Caribou Herd* (Porcupine Caribou Agreement);
- Polar bears - the 2008 *Memorandum of Understanding between Environment and Climate Change Canada and the United States Department of the Interior for the Conservation and Management of Shared Polar Bear Populations* and the multilateral 1973 *Agreement on the Conservation of Polar Bears*; and
- Migratory birds - the 1916 *Convention for the Protection of Migratory Birds in the United States and Canada*.

In terms of the Porcupine Caribou herd, our countries have recognized under the Porcupine Caribou Agreement the importance of cooperation and coordination for the long-term conservation of the herd and its habitat, a shared natural resource. Article 3(c) of the agreement provides that activities requiring a Party's approval having a potential impact on the conservation of the herd or its habitat be subject to impact assessment and review consistent with domestic laws, regulations and processes. With regard to any impact assessment of oil and gas exploration and development, Canada notes that Section 1005 of the *Alaska National Interest Lands Conservation Act* requires the U.S. Secretary of the Interior to consult with the appropriate agencies of the Government of Canada, particularly with respect to the Porcupine Caribou herd.

Given these provisions, and the importance that Canada and the United States mutually ascribe in taking appropriate actions to conserve migratory species and their habitat, Canada would therefore request that it be notified and engaged throughout the Environmental Impact Statement (EIS) process. Canada would also like to request that public information sessions be held in Canada during the EIS process. There has already been significant, demonstrated interest of Canadian stakeholders in this process.

While Canada welcomes the opportunity to contribute to the EIS process, it nevertheless views the process as distinct and separate from the treaty-based mechanisms for cooperation and consultation that Canada and the United States have concluded to protect migratory species. Canada has separately sent a diplomatic note to the U.S. Department of State outlining our interest in and expectation of working with the United States to further convey our views through collaborative consultation and cooperation.

### **Scoping Input**

Consistent with established *National Environmental Policy Act* practice, we trust that the EIS process will incorporate a detailed consideration of transboundary impacts, with particular consideration for impacts on the Porcupine Caribou herd and other shared migratory species.

Below, please find our recommendations for issues that should be included within the scope of the EIS.

### General Topics

Within the EIS, Canada recommends that the following broad topics be fully described:

- The Coastal Plain environment and valued ecosystem components;
- Potential impacts to key species of the proposed leasing, as well as impacts of pre- and post-lease activities such as seismic and drilling exploration, development, and transportation of oil and gas in and from the Coastal Plain and additional induced development (i.e. development that becomes likely and economically feasible when infrastructure established as part of the current leasing options). This would include describing the impacts of malfunctions, such as spills;

- Clear statements on the significance of those potential impacts;
- Project (i.e. the leasing) alternatives or alternative means for the project;
- Critical thresholds or limits to development, and the legislative framework to support them;
- Additive, multiplicative, and synergistic cumulative effects of this proposed leasing and induced development on key species (in relation to existing natural and anthropogenic stressors); and
- The requirements for effectiveness monitoring (of any proposed mitigations relevant to this phase of the process) including listing accountable agencies for any monitoring.

#### Content Common to all Key Species

For Porcupine Caribou, polar bear, and migratory birds, Canada requests the EIS examine at least the following facets:

- A complete description of the use and importance of the Coastal Plain in ANWR to movements of each species (and each life stage), during each season of the year, and across multiple years (including decades – such as on the scale of time as major climate forcing cycles such as the Pacific Decadal Oscillation). Descriptions should include scientifically defensible methods of delineation and rating of areas for importance;
- The likely effects of development on space use and movement by each of the key species should be examined, including abandonment or stranding of specific seasonal habitats;
- In addition to those spatial and temporal use analyses, an examination of how that use may change in the future with changes to spring snow melt and plant phenology, changes in precipitation, temperature, permafrost, and offshore ice conditions and extent (as it influences on-shore use by the species);
- An examination of scenarios of potential development / leasing and how that may affect each species within the spatial and temporal bounds and environmental changes listed above. This analysis should be comprehensive, including energy balance changes and impacts to reproduction, predator-prey dynamics, contaminants (including dust), increased mortality, and other direct and indirect effects on the key species and issues;
- An analysis of how any of the potential, predicted changes from development may impact subsistence harvesting of the above-mentioned species. This analysis should not be limited to only the harvesters that may access those species during the time they are in the Coastal Plain (i.e. transboundary effects on subsistence harvesting should be fully analyzed); and
- A comprehensive, up-to-date review of the potential impacts of oil and gas development in an arctic environment, including suggested mitigations and documentation of their effectiveness, including from grey literature.



## Species-specific Content

Within the general umbrella of topics covered above, species-specific analyses should include:

### **Porcupine Caribou**

- A description of the reproductive biology and ecology of the Porcupine Caribou herd including comparisons to other migratory herds (specifically including the central arctic caribou herd), to point out similarities and differences, and the importance of calving grounds to migratory tundra caribou populations;
- Consideration of a full-development scenario for the Coastal Plain and how it would affect the Porcupine Caribou herd demographics rates, including recruitment, adult female survival, and the growth rate of the population ( $\lambda$ ) and an examination of the likely mechanisms of change. As part of this consideration, the following questions should be addressed:
  - How will recruitment metrics such as gestation, age at first parturition, and calf survival change?
  - How will metrics for adult cows, such as body condition, reproductive status, and survival be altered as a direct result of impacts?
  - Can any lag effects on cow or calf vital rates be anticipated (e.g. will there be carry-over effects from exposure to development on the calving grounds that affect vital rates in other parts of the seasonal cycle)?
  - Can a change in age structure within the herd be anticipated?
  - How might these parameters vary in the context of climate variability and change, including changes to forage quality? Could other seasons buffer the impacts caused by development?
  - At what herd size and trend would might the herd to be limited by the interaction between the development and the herd's inability to increase quickly (i.e., recruitment sink)?
  - How much would likely effects on the herd vary depending on herd size (large, medium, small) and trend (increasing, stable, decreasing)?
- A description and explanation of the strategy by Porcupine Caribou to choose specific, but varying calving areas each year, how that contributes to overall reproductive success, and what the effects of development may do to this strategy and herd success.

### **Polar Bears**

- A description of the potential for human-bear interactions and incidental take of polar bears during exploration, development and production. Specifically, given an increased presence of humans on the landscape, coupled with polar bears spending increased time on land in association with sea ice loss caused by climate change, the potential for human-bear interactions is likely to increase. Unless steps are taken to reduce the frequency of conflicts, both human life and polar bear life will be put at risk. From a conservation perspective, additional human-caused polar bear mortality is a conservation threat in subpopulation that is predicted to decline due to deteriorating ice conditions; and

- A description of the potential loss of maternity denning habitat or direct reproductive success that may result from disturbance (including during seismic exploration), as well as describing the potential effects of disturbing denning females, particularly within the 32 km coastline buffer identified as critical habitat. An increasing proportion of polar bears in the Southern Beaufort Sea subpopulation are believed to den on land in association with sea ice loss.

### **Migratory Birds**

- An examination of the impacts on shared populations, such as Snow Geese, with particular consideration of shared populations using the Coastal Plain that may have conservation concerns, including such species as Buff-breasted Sandpiper, Whimbrel, Ruddy Turnstone, Stilt Sandpiper, Pectoral Sandpiper, American Golden Plover, and Yellow-billed Loon.

### Additional Considerations

Canada also requests that the following information be included in the EIS:

- A description of any mitigations or practices that will be required of any development in ANWR, understanding that project-specific mitigations will be determined in a separate regulatory process. For instance, road bed construction guidelines, ice-road requirements, predator management plans, traffic management plans, pipeline heights, well pad spacing seasonal restrictions or “stop work” situations, areas off limits to development within the Coastal Plain; and
- A thorough analysis of the likely components of projects that will fall outside the ‘2000 acre limit’ that is described in H.R. 1 (Public Law 115-97), Section 20001(c)(3). Specifically, how roads, gravel mines (borrow pits), exploration or delineation wells, water reservoir pits, or other features might be limited or accounted for in the footprint of induced development. Though gravel piers for pipelines are included, the footprint of the pipeline itself, how it fragments habitat or impedes movement should be included. The zone of influence of development, rather than just the physical structures, should be a part of the “footprint”.
- This analysis should specify how much of the Coastal Plain could be developed within a ‘2000 acre limit’ as variously defined.

To help ensure the EIS contains the best analyses, Canada is pleased to provide data relevant to the EIS process and welcomes requests for such data from the United States.

Canada would also like to note that the International Porcupine Caribou Board, formed under the Porcupine Caribou Agreement, is a key bilateral mechanism to advise the Governments of Canada and the United States on the impact of proposed development in the Coastal Plain and to share information and consider actions for the protection of the herd and its habitat. Canada thanks the United States for its work supporting the Board and welcomed the recent news that the two remaining vacancies for U.S. members may be filled by late June and that the board could meet before the end of September. Canada welcomes this and looks forward to the opportunity to discuss this issue with the United States.

Canada appreciates the opportunity to provide input into the scoping process for the EIS for the Coastal Plain Oil and Gas Leasing Program and thanks the Bureau of Land Management for considering these aspects throughout the process. We look forward to collaboration and consultation throughout the EIS process.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kevin Thompson', with a stylized flourish extending to the right.

Kevin Thompson  
Director General, North America Strategy Bureau

**From:** [Pearce, John](#)  
**To:** [Martin, John](#)  
**Cc:** [Steve Berendzen](#); [Joanna Fox](#); [Stephen Arthur](#); [Drew Crane](#); [Doug Damberg](#); [Ronnie Sanchez](#); [Cribley, Bud](#); [Jenifer Kohout](#); [Putnam, Christopher](#); [Patrick Lemons](#); [Paul Leonard](#); [Sarah Conn](#); [Edward Decleva](#); [Douglas Campbell](#); [Diane Granfors](#); [John Trawicki](#); [Taylor, Eric](#); [Wendy Loya](#); [Aimee Devaris](#); [Christian Zimmerman](#); [David Houseknecht](#); [Marti Miller](#); [Todd Atwood](#); [Robert Brumbaugh](#); [Zachary Lyons](#); [Wayne Svejnoha](#); [Stacie McIntosh](#); [Steven Cohn](#); [Serena Sweet](#); [Nichelle \(Shelly\)](#); [Mark Miller](#); [Sara Longan](#); [Sara W \(DNR\)](#); [Mitch Ellis](#); [Mary Colligan](#); [Lor, Socheata](#); [Ted Swem](#); [Stephanie Brady](#); [Tracy Fischbach](#); [Sarena Selbo](#)  
**Subject:** Re: Coastal Plain 1002 Area Interagency, Interdisciplinary Meeting-Conference Call  
**Date:** Sunday, January 7, 2018 11:46:02 PM  
**Attachments:** [USGS 1002 Report contents.docx](#)

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All,

Prior to our meeting on Monday morning, I wanted to make everyone aware that staff of the USGS Alaska Science Center and the Arctic National Wildlife Refuge have been working on an updated summary of biological research conducted within the 1002 Area since 2002 when the last assessment was published (Douglas et al., 2002; <https://pubs.er.usgs.gov/publication/bsr20020001>). I was hoping to share the new report with you, but I was not able to complete all the final approvals prior to our meeting and so am unable to release the full report at this time. However, I can share the table of contents and references (attached) so that this group is aware of the scope of the report. We expect this report to be published before the end of January 2018.

I'm happy to discuss the report further on Monday and hope that it will be useful as this group responds to the resource assessment summaries requested by DOI.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
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<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Thu, Jan 4, 2018 at 1:22 PM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:

All

An interagency, interdisciplinary meeting-conference call will convene at the FWS Alaska Region office on 0900-1100 Monday 8 January 2018. Apologies in advance for such short notice but I believe all are aware of the fast-paced nature and need.

For those physically attending, we will meet in the Gordon Watson conference room (first floor); our address is 1011 East Tudor Road, Anchorage, AK.

Vidyo access is available for Service staff. For others calling in please use

**passcode** .

Please see attachments for details. Also attached is a sign-in sheet for those that

0000011544

may wish to submit a scan for our record and ensure your attendance is annotated.

If you have any other questions, or I may provide additional information, please let me know.

Thanks

John

# Summary of Wildlife-Related Research on the Coastal Plain of the Arctic National Wildlife Refuge, 2002-2017

By John M. Pearce, Paul L. Flint, Todd C. Atwood, David C. Douglas, Layne G. Adams, Heather E. Johnson, Stephen M. Arthur, and Christopher J. Latty

Prepared in cooperation with the U.S. Fish and Wildlife Service

Open-File Report 2018-####

## U.S. Department of the Interior

RYAN K. ZINKE, Secretary

## U.S. Geological Survey

William H. Werkheiser, Deputy Director  
exercising the authority of the Director

U.S. Geological Survey, Reston, Virginia: 2017

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ISSN 2331-1258 (

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## Figures

**Figure 1.** Map of the 1002 Area of the Arctic National Wildlife Refuge. This map is not intended to prejudice ongoing boundary litigation between the State of Alaska and the U.S. Department of the Interior. Map data courtesy of U.S. Geological Survey, Bureau of Land Management, and Bureau of Ocean Energy Management.

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**Figure 2.** Map of approximate annual distributions of northern caribou herds in Alaska and Canada. .. Error! Bookmark not defined.

**Figure 3.** Map showing distribution of polar bears observed from 2010 to 2013 during autumn aerial surveys along the north coast, Alaska (adapted from Atwood and others, 2016)..... Error! Bookmark not defined.

**Figure 4.** Map showing polar bear maternal dens on land or fast ice discovered with very high frequency (VHF) or satellite telemetry along north coast, Alaska, 1982–2010. Polar bears den during winter and “Spring Year” denotes the year the den was exited..... Error! Bookmark not defined.



**Figure 5.** Map showing estimate of suitable polar bear maternal denning habitat within the 1002 Area based on Durner and others (2006)..... **Error! Bookmark not defined.**

## **Table**

**Table 1.** List of 57 “fairly common”, “common”, and “abundant” breeding (B) and nonbreeding (NB) bird species for the coast, inland, and barrier island and lagoon regions of the 1002 Area of the Arctic National Wildlife Refuge, Alaska..... **Error! Bookmark not defined.**

**Table 2.** Average number per year of the 17 most common bird species observed from 1999 to 2009 on coastal lagoon and barrier island aerial surveys by the U.S. Fish and Wildlife Service (Dau and Bollinger, 2009) within the 1002 Area of the Arctic National Wildlife Refuge, Alaska..... **Error! Bookmark not defined.**

## Acknowledgments

We thank Beth Lenart (Alaska Department of Fish and Game), Jeff Conaway (U.S. Geological Survey [USGS]), Ann Gibbs (USGS), Brad Griffith (USGS), Jerry Hupp (USGS), Sarah Thompson (USGS), Vanessa Von Biela (USGS), John Buursma (USGS), Patrick Lemons (U.S. Fish and Wildlife Service [USFWS]), Greta Burkhart (USFWS), Roy Churchwell (USFWS), Janet Jorgenson (USFWS), and Rick Lanctot (USFWS) for their reviews of this report. Mary Whalen (USGS) assisted with all figures.

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**From:** [Martin, John](#)  
**To:** [Pearce, John](#)  
**Cc:** [Steve Berendzen](#); [Joanna Fox](#); [Stephen Arthur](#); [Drew Crane](#); [Doug Damberg](#); [Ronnie Sanchez](#); [Cribley, Bud](#); [Jenifer Kohout](#); [Putnam, Christopher](#); [Patrick Lemons](#); [Paul Leonard](#); [Sarah Conn](#); [Edward Declava](#); [Douglas Campbell](#); [Diane Granfors](#); [John Trawicki](#); [Taylor, Eric](#); [Wendy Loya](#); [Aimee Devaris](#); [Christian Zimmerman](#); [David Houseknecht](#); [Marti Miller](#); [Todd Atwood](#); [Robert Brumbaugh](#); [Zachary Lyons](#); [Wayne Svejnoha](#); [Stacie McIntosh](#); [Steven Cohn](#); [Serena Sweet](#); [Nichelle \(Shelly\)](#); [Mark Miller](#); [Sara Longan](#); [Sara W \(DNR\)](#); [Mitch Ellis](#); [Mary Colligan](#); [Lor, Socheata](#); [Ted Swem](#); [Stephanie Brady](#); [Tracy Fischbach](#); [Sarena Selbo](#)  
**Subject:** Re: Coastal Plain 1002 Area Interagency, Interdisciplinary Meeting-Conference Call  
**Date:** Monday, January 8, 2018 7:38:35 AM

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John

Thanks for sharing this news, and report. The final report will certainly be valuable resource as we move forward.

J

On Sun, Jan 7, 2018 at 9:45 PM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

All,

Prior to our meeting on Monday morning, I wanted to make everyone aware that staff of the USGS Alaska Science Center and the Arctic National Wildlife Refuge have been working on an updated summary of biological research conducted within the 1002 Area since 2002 when the last assessment was published (Douglas et al., 2002; <https://pubs.er.usgs.gov/publication/bsr20020001>). I was hoping to share the new report with you, but I was not able to complete all the final approvals prior to our meeting and so am unable to release the full report at this time. However, I can share the table of contents and references (attached) so that this group is aware of the scope of the report. We expect this report to be published before the end of January 2018.

I'm happy to discuss the report further on Monday and hope that it will be useful as this group responds to the resource assessment summaries requested by DOI.

John

John M. Pearce, Ph.D.  
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On Thu, Jan 4, 2018 at 1:22 PM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:

All

An interagency, interdisciplinary meeting-conference call will convene at the FWS Alaska Region office on 0900-1100 Monday 8 January 2018. Apologies in advance for such short notice but I believe all are aware of the fast-paced nature

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and need.

For those physically attending, we will meet in the Gordon Watson conference room (first floor); our address is 1011 East Tudor Road, Anchorage, AK.

Vidyo access is available for Service staff. For others calling in please use **b5 - CIP** **passcode** **b5 - CIP** **b5 - CIP**

Please see attachments for details. Also attached is a sign-in sheet for those that may wish to submit a scan for our record and ensure your attendance is annotated.

If you have any other questions, or I may provide additional information, please let me know.

Thanks

John

**From:** [Wendy Loya](#)  
**To:** [Stephanie Brady](#)  
**Subject:** FW: Coastal Plain 1002 Area Interagency, Interdisciplinary Meeting-Conference Call  
**Date:** Monday, January 8, 2018 11:34:08 AM  
**Attachments:** [USGS 1002 Report contents.docx](#)

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Updated 1002 table of contents

Dr. Wendy M. Loya, Coordinator  
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**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Sunday, January 07, 2018 9:46 PM  
**To:** Martin, John  
**Cc:** Steve Berendzen; Joanna Fox; Stephen Arthur; Drew Crane; Doug Damberg; Ronnie Sanchez; Cribley, Bud; Jenifer Kohout; Putnam, Christopher; Patrick Lemons; Paul Leonard; Sarah Conn; Edward Declava; Douglas Campbell; Diane Granfors; John Trawicki; Taylor, Eric; Wendy Loya; Aimee Devaris; Christian Zimmerman; David Houseknecht; Marti Miller; Todd Atwood; Robert Brumbaugh; Zachary Lyons; Wayne Svejnoha; Stacie McIntosh; Steven Cohn; Serena Sweet; Nichelle (Shelly); Mark Miller; Sara Longan; Sara W (DNR); Mitch Ellis; Mary Colligan; Lor, Socheata; Ted Swem; Stephanie Brady; Tracy Fischbach; Sarena Selbo  
**Subject:** Re: Coastal Plain 1002 Area Interagency, Interdisciplinary Meeting-Conference Call

All,

Prior to our meeting on Monday morning, I wanted to make everyone aware that staff of the USGS Alaska Science Center and the Arctic National Wildlife Refuge have been working on an updated summary of biological research conducted within the 1002 Area since 2002 when the last assessment was published (Douglas et al., 2002; <https://pubs.er.usgs.gov/publication/bsr20020001>). I was hoping to share the new report with you, but I was not able to complete all the final approvals prior to our meeting and so am unable to release the full report at this time. However, I can share the table of contents and references (attached) so that this group is aware of the scope of the report. We expect this report to be published before the end of January 2018.

I'm happy to discuss the report further on Monday and hope that it will be useful as this group responds to the resource assessment summaries requested by DOI.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

0000011559

On Thu, Jan 4, 2018 at 1:22 PM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:  
All

An interagency, interdisciplinary meeting-conference call will convene at the FWS Alaska Region office on 0900-1100 Monday 8 January 2018. Apologies in advance for such short notice but I believe all are aware of the fast-paced nature and need.

For those physically attending, we will meet in the Gordon Watson conference room (first floor); our address is 1011 East Tudor Road, Anchorage, AK.

Vidyo access is available for Service staff. For others calling in please use b5 - CIP [REDACTED]  
b5 - CIP [REDACTED] **passcode** b5 - CIP [REDACTED].

Please see attachments for details. Also attached is a sign-in sheet for those that may wish to submit a scan for our record and ensure your attendance is annotated.

If you have any other questions, or I may provide additional information, please let me know.

Thanks

John

**From:** [Leonard, Paul](#)  
**To:** [Urban, Frank](#)  
**Cc:** [Wendy Loya](#); [Matthew Sturm](#); [Greta Burkart](#); [John Trawicki](#); [Gary Clow](#)  
**Subject:** Re: 1002 Climate resource assessment - MET stations  
**Date:** Wednesday, January 10, 2018 11:15:32 AM  
**Attachments:** [USGS-Stations.png](#)  
[Summary notes from Call with MSturm.docx](#)

---

Thanks for those initial thoughts Frank.

I should point out that Wendy has spent some time recently with Matthew Sturm and he has provided us with a pretty good summary of snow surveys for the 1002 area and additional ideas that this team can build out. Those notes are attached.

Now that we've had the deadline to pull this information together extended a bit, I'd like to propose a call early next week in hopes of getting on Matthew's calendar who is out this week.

With the holiday Monday, would either Tuesday at 2 PM AK or Wed. at 11 AM AK work for you?

I can also put together a doodle poll if scheduling gets difficult (their site is not functioning properly right now).

Thanks again.

Cheers,  
Paul

On Tue, Jan 9, 2018 at 10:27 AM, Urban, Frank <[furban@usgs.gov](mailto:furban@usgs.gov)> wrote:

Paul, easiest to chat on the phone about some of these questions, Thurs afternoon might be best- how about 3pm Mountain time? I can fill you in on details and ideas. Long story short, there is limited information on snow on the coastal plain and there could be quite a bit more work done to characterize it. There have been limited resources in the past to address the issue. Maybe the renewed interest in the 1002 area will allow for some funding to be leveraged to expand snow (and other climate) monitoring efforts! Along those lines, the funding for our USGS Climate and Permafrost stations on the North Slope is quite uncertain currently- we are in a wait and see mode with respect to our program and are waiting for direction once budgets are more certain.

We do still operate 4 stations in the refuge with logistical help/support from FWS and BLM, 3 on the coastal plain and one south of the Brooks see map below. Climate and permafrost summaries from the stations are available here. <https://pubs.er.usgs.gov/publication/ds1021> and an updated data series will be released within the next month I am hoping!

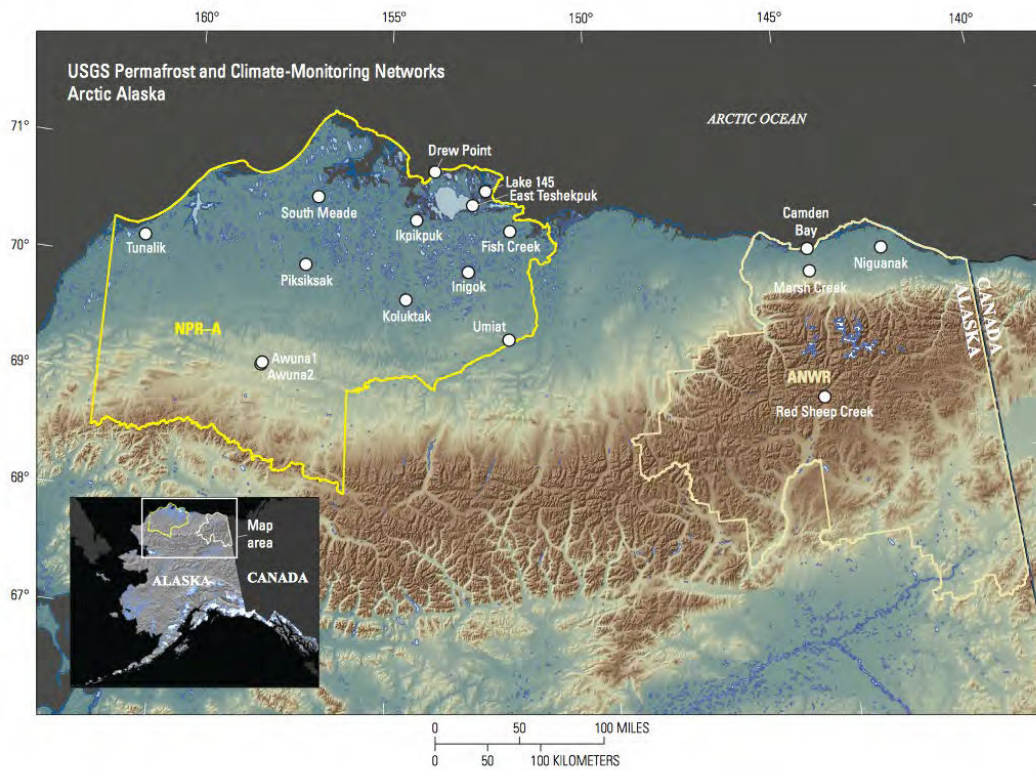
Adding snow instrumentation to the seismic stations you discuss could be possible but it would need to be done in a well thought out way. Right off the bat I see some issues with it- 1) those sites are located on ridges which typically are quite wind blown and not representative - 2) the seismic stations are sizable deployments that no doubt create large drifts so any snow instruments would need to be located at some distance away- 3) the

seismic stations may or may not be designed to allow for addition of other instruments...

Ideally, to address questions of snow depth, characterization etc... in the 1002 area, A suite of complimentary methods could/should be considered/deployed. Automated snow depth from monitoring stations, structure from motion, and annual snow surveys along with repeat and time-lapse photography...

Let me know if Thursday works for you to chat, if not let me know some other possible time slots

Frank



**Figure A-1.** U.S. Department of the Interior/Global Terrestrial Network for Permafrost (DOI/GTN-P) climate monitoring array in Arctic Alaska. There are 12 stations currently operating in the National Petroleum Reserve-Alaska (NPR-A) and 4 stations in the Arctic National Wildlife Refuge (ANWR). Station names can be clicked to access climate summaries, data files, and station-specific information.

On Tue, Jan 9, 2018 at 10:00 AM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Good morning Frank,

The Arctic LCC staff is facilitating the Climate/Snow resource assessment team and as I started looking at possible MET stations in 1002 I wanted to see if we could get an update and additional ideas from you guys.

I know USGS has some stations around Marsh Creek and Camden Bay, are these still operating and if so how might we compliment snow data collected with additional sites? One immediate idea is to look at adding snow instrumentation to stations from the seismic transportable arrays here: <http://www.usarray.org/alaska#meteorological-and-soil-temperature>

with an interactive map here:

[http://www.iris.washington.edu/gmap/\\_US-TA?minlat=50&maxlat=73&minlon=-175&maxlon=-122](http://www.iris.washington.edu/gmap/_US-TA?minlat=50&maxlat=73&minlon=-175&maxlon=-122)

It looks like these stations already collect information about wind and temperature but are scheduled to go offline in 2019. It might be a good recommendation to continue funding the stations?

Any thoughts about how the locations of these stations might help get a better handle on snow depth or other ideas about how to monitor (e.g., structure from motion)?

Cheers,  
Paul

--

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
[101 12th Ave. Room 216](#)  
[Fairbanks, AK 99701](#)  
[\(907\) 456-0445](#)

--

Frank Urban  
U.S. Geological Survey  
MS 980, Box 25046  
Denver, CO 80225  
303-236-4790

--

Paul Leonard, PhD  
Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445



Summary notes from Call with M. Sturm & W. Loya (1/5/18)

Are the USGS sensors still in operation and how representative are the existing locations of USGS sensors for snow?

Unsure. The ones near Camden Bay and Niguanak validated well with sonic sounder estimates of snow depth, but the Marsh Creek area may be less representative of the surrounding landscape.

Key questions are whether the snow is thick enough for transportation and for denning bears, and this differs significantly between flat plain and gullies. Wind blows and accumulates in gullies (creating Polar Bear denning habitat), unless there is a rain on snow or freeze-thaw event that prevents snow redistribution (which could favor securing snow for winter travel with low ground pressure vehicles).

Structure From Motion (SFM) imaging is likely best tool for looking across coastal plain. It is basically creating a Snow Digital Elevation Model, so you measure snow surface in winter and ground surface in summer, and the difference between the two is snow depth.

- Sturm, Fahnestock et al. proposed using Worldview satellite to evaluate drifts from space; was not funded by NASA this year but may have potential given imperative. Accuracy is  $\pm 20\text{cm}$ , so this would be fine for 3 meter drift detection.
- From an aircraft, which FWS has and which industry contracts for FLIR detection of bears in Dec/Jan, SFM sensors could be mounted and may cost about \$10K plus significant processing time. Ground truthing of snow depth is needed. This would be a snowmachine transect at the time of overflight and taking readings with a sonic sounder of snow depth.
  - Matt is planning to fly SFM on North Slope in April for other NSF project needs. It might be possible to include a 500 meter wide swath on an East-West transect on Arctic Coastal Plain, and FWS and partners could mobilize a ground truthing team.
  - We have a few SFM measurements already for 1002 and also Hulahula snow drifts.
    - Expertise is needed, possibly a post-doc
- Might be worth looking into keeping and instrumenting with climate (wind, temp, snow sensors) for the 1-2 stations of the EarthScope Transportable Array Stations that appear to be deployed in the 1002 area <http://www.usarray.org/alaska>.
- Previous work by Sturm et al. included a North to South Transect of Arctic Refuge to understand snow distribution. Take-home message of that work is that wind on coastal plain likely results in lower snow depth in north. This work is in preparation for journal submission.

**From:** [Frank Urban](#)  
**To:** [Leonard, Paul](#)  
**Cc:** [Wendy Loya](#); [Matthew Sturm](#); [Greta Burkart](#); [John Trawicki](#); [Gary Clow](#)  
**Subject:** Re: 1002 Climate resource assessment - MET stations  
**Date:** Wednesday, January 10, 2018 11:30:25 AM

---

Paul,

All sounds good and Matthew and I will chat prior to this to compile thoughts as well. Good to hear that Wendy and Matthew have touched base as he has a good handle on all of this for sure.

Tuesday 2pm AK will work for me but Wednesday 11AM AK would be difficult.

Thanks!

Frank

On Jan 10, 2018, at 11:14 AM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Thanks for those initial thoughts Frank.

I should point out that Wendy has spent some time recently with Matthew Sturm and he has provided us with a pretty good summary of snow surveys for the 1002 area and additional ideas that this team can build out. Those notes are attached.

Now that we've had the deadline to pull this information together extended a bit, I'd like to propose a call early next week in hopes of getting on Matthew's calendar who is out this week.

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Thanks again.

Cheers,  
Paul

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renewed interest in the 1002 area will allow for some funding to be leveraged to expand snow (and other climate) monitoring efforts! Along those lines, the funding for our USGS Climate and Permafrost stations on the North Slope is quite uncertain currently- we are in a wait and see mode with respect to our program and are waiting for direction once budgets are more certain.

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Frank

<USGS-Stations.png>

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Any thoughts about how the locations of these stations might help get a better handle on snow depth or other ideas about how to monitor (e.g., structure from motion)?

Cheers,  
Paul

--

Paul Leonard, PhD  
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[101 12th Ave. Room 216](#)  
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--

Frank Urban  
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<Summary notes from Call with MSturm.docx>

**From:** [Leonard, Paul](#)  
**To:** [Pearce, John](#)  
**Cc:** [Schellekens, Mathew](#); [Jeff Conaway](#); [Wendy Loya](#)  
**Subject:** Re: 1002 Area Climate and Snow Science  
**Date:** Friday, January 12, 2018 6:12:02 PM

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Thanks John and Matt,

Apologies for the poorly worded email and any confusion. The purpose was pertaining to the second question about summarizing existing information.

Cheers,  
Paul

On Fri, Jan 12, 2018 at 3:45 PM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Hi Paul,

Thanks for contacting us. We can't assist with your first question of "What do we need to know and why - to support resource development decisions - including seismic exploration, building ice roads and coastal infrastructure." That is a question for the BLM as they develop a leasing plan. Once those science needs are identified by the BLM, FWS or other management bureau, the USGS can provide any existing relevant information and research study designs to obtain the necessary information and answers.

Regarding your second question, we'd be happy to provide a summary of what we know exists for water information for the 1002 Area and we can also summarize what other information/project data might be available either with USGS or other groups. Jeff Conaway would be the best person to speak with on these topics.

Best regards,  
John

John M. Pearce, Ph.D.  
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<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Fri, Jan 12, 2018 at 3:19 PM, Schellekens, Mathew <[matts@usgs.gov](mailto:matts@usgs.gov)> wrote:

Paul,

Thanks for reaching out to us. Although I would be happy to speak with you, the better persons to talk with on the USGS side would be Jeff Conaway (Branch Chief Hydrologic Monitoring and Investigations, USGS Alaska Science Center) and John Pearce (Wildlife Biologist, USGS Alaska Science Center).

I have included both of them in this email.

\*\*\*\*\*

Matt Schellekens  
Supervisory Hydrologist  
U.S. Geological Survey  
[3400 Shell Street, Fairbanks, AK 99701](#)  
(907) 479-5645 ext 222 (907) 378-8783 cell  
(907) 479-5455 fax

\*\*\*\*\*

On Fri, Jan 12, 2018 at 2:23 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hello Matt,

The Arctic LCC is in the process of identifying existing work and new science needed to support decisions regarding oil and gas exploration in the 1002 area of the arctic refuge. I am leading an effort to elicit input from experts around the region dealing with climate and snow issues. I was meeting with Ssveta Stuefer at UAF today and she mentioned you might be a good person to contact about work that has been done in and around 1002. We do work closely with the CAE program and John Pearce down in Anchorage and I know USGS is primed to release a bibliography updating [Douglas et al 2002](#) (that will include a section on water resources) but thought I would reach out to you in the meantime to see if you might have some interest in speaking with me about the following type of question:

What do we need to know and why - to support resource development decisions - including seismic exploration, building ice roads and coastal infrastructure.

I would like to talk to you if possible about the obvious linkages between snow/climate concerns and water availability in that area and get a general sense about other information/projects/data you may be aware of that could help us in this effort.

If you'd be available for a quick conversation mid next week please let me know and I can either stop by the office or arrange a phone call. Thanks for the consideration!

Cheers,  
Paul

--  
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[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:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** 1002 Area Climate and Snow Science: NOAA and NRCS contacts  
**Date:** Tuesday, January 16, 2018 11:00:52 AM

---

Hi Paul,

Aimee Devaris at USGS suggested contacting NOAA for the snow and climate section, and of course that makes sense. NRCS runs the Snotel monitoring so probably good to touch base with them too. I think those can be different conversations than the one today with Matthew and Gary et al. to not have too much to talk about in 1 hr. Fine to wait until after today's conversation to have a better sense of this group's recommendations.

Scott Lindsey heads up the Hydrology group at NOAA, and Amy Holman (our NOAA Steering Committee Rep suggested starting with him) [scott.lindsey@noaa.gov](mailto:scott.lindsey@noaa.gov)  
Jessica Cherry is on his staff, she used to be at UAF and developed IMIQ

NRCS contact: <https://www.wcc.nrcs.usda.gov/contact/index.html>

Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Friday, January 12, 2018 3:45 PM  
**To:** Schellekens, Mathew  
**Cc:** Leonard, Paul; Jeff Conaway; Wendy Loya  
**Subject:** Re: 1002 Area Climate and Snow Science

Hi Paul,

Thanks for contacting us. We can't assist with your first question of "What do we need to know and why - to support resource development decisions - including seismic exploration, building ice roads and coastal infrastructure." That is a question for the BLM as they develop a leasing plan. Once those science needs are identified by the BLM, FWS or other management bureau, the USGS can provide any existing relevant information and research study designs to obtain the necessary information and answers.

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4210 University Drive  
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Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

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\*\*\*\*\*  
Matt Schellekens  
Supervisory Hydrologist  
U.S. Geological Survey  
[3400 Shell Street, Fairbanks, AK 99701](http://3400.Shell.Street.Fairbanks.AK.99701)  
(907) 479-5645 ext 222 (907) 378-8783 cell  
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\*\*\*\*\*

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Cheers,  
Paul

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

[101 12th Ave. Room 216](#)

[Fairbanks, AK 99701](#)

[\(907\) 456-0445](#)

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Pearce, John](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Status of Coastal Plain Map?  
**Date:** Friday, February 9, 2018 11:26:37 AM

---

Awesome - thank you both!

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

On Fri, Feb 9, 2018 at 8:59 AM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

I just emailed Dave Houseknecht on this because their office derived the original map and has been working with DOI Solicitor's office and Murkowski staff to resolve the map issue. I asked them to get back to me before our meeting today, so I hope to have some information to share at 11 am.

JP

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
[4210 University Drive](#)  
[Anchorage, Alaska 99508](#)  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Fri, Feb 9, 2018 at 8:50 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Nicole,

I would like to discuss how to proceed at our 11am meeting today. I need more information from our FWS team, but it sounds like the map used by USGS in legislation was not the correct map to use for boundary purposes, so USFWS will need to work with BLM to achieve the accuracy necessary.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907 786 3532 (office)

907 227 2942 (mobile)

**From:** Hayes, Miriam (Nicole) [mailto:[mnhayes@blm.gov](mailto:mnhayes@blm.gov)]  
**Sent:** Friday, February 09, 2018 8:13 AM  
**To:** John Pearce; Wendy Loya  
**Subject:** Fwd: Status of Coastal Plain Map?

For your situational awareness - the Department is asking us to draft a NOI package and it is imperative we have an accurate map and acreage to reference. Cathy Hillis, our Geospatial Manager and Cory Black on her staff will be contacting staff at FWS (cc'd on the message below) today to try and get the recent/accurate source data that is available. John - is there someone from USGS she could contact? It would be good to make sure everyone is all in agreement on the final product.

Thank you!

Nicole

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

0000011576

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

From: Hillis, Catherine <[chillis@blm.gov](mailto:chillis@blm.gov)>

Date: Thu, Feb 8, 2018 at 4:55 PM

Subject: Re: Status of Coastal Plain Map?

To: "Hayes, Miriam (Nicole)" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>

Cc: John Brewer <[john\\_brewer@fws.gov](mailto:john_brewer@fws.gov)>, Douglas Campbell <[douglas\\_campbell@fws.gov](mailto:douglas_campbell@fws.gov)>, Cory Black <[cblack@blm.gov](mailto:cblack@blm.gov)>

Nicole, The FWS has not come up with the "official boundary" so I did a quick analysis based on the following:

Utilizing the UFWS 1002 Boundary released in 1995, I clipped our mashup product, Administered Lands. From ALIS case land geometry, I selected polygons representing lands excluded from the coastal plain area using the USGS's ANWR Map Plate 1 and Plate 2 11-15-17 Bus Mtg.pdf as a guide and erased these from the clipped geometry. I then calculated GIS\_Acres using NAD\_1983\_Alaska\_Albers coordinate system. Below is the resulting data. You will notice there is 1 acre of private - I believe that is a sliver created during processing. And there is 106 acres of state lands, that is likely due to the fact that the 1002 boundary is not vertically integrated with our data - once again a sliver. There is also 967 acres of Alaska Native allotments. It is unclear from the USGS map if these were to be included in the Coastal Plain. Please keep in mind that these are not exact acres and are subject to change when the official Coastal Plain boundary has been delineated by USFWS. Please let me know if you have further questions.

DEPT_NAME	AGENCY_NAME	Admin Dept. Code	Admin Agency Code	Admin Type	GIS_ACRES
Department of the Interior	Fish and Wildlife Service	DOI	FWS	Agency	1424063
State	State	ST	ST	Not Applicable	106
Private	Private	PVT	PVT	Not Applicable	1
Undetermined	Undetermined	UND	UND	Water	61690
Alaska Native Allotment	Alaska Native Allotment	NTVALL	NTVALL	Not Applicable	967
Alaska Native Lands Patented or Interim Conveyed	Alaska Native Lands Patented or Interim Conveyed	NTVPIC	NTVPIC	Not Applicable	24179
				Total w/Water	1,511,006.00
				Total w/o Water	1,449,316.00

Cathy Hillis, Geospatial Manager

Alaska State Office

907-271-3273

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#); [Miriam \(Nicole\) Hayes](#)  
**Subject:** RE: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE  
**Date:** Friday, February 9, 2018 2:04:36 PM

---

This is an important interpretation, but perhaps not the question BLM Cartography is asking about in preparing the map for the NOI, which I believe is: What is the official boundary of the 1002 area?

So I believe FWS needs to share a GIS file with BLM that accomplishes that, is that correct Nicole?

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Friday, February 09, 2018 11:32 AM  
**To:** Miriam (Nicole) Hayes; Wendy Loya  
**Subject:** Fwd: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE

Recent email on the map.

Nicole, if you need further information, I would follow-up with Mike.

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

**From:** Gieryic, Michael <[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)>  
**Date:** Fri, Feb 9, 2018 at 11:16 AM  
**Subject:** Re: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE  
**To:** "Houseknecht, David" <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)>  
**Cc:** "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Durelle Smith <[dpsmith@usgs.gov](mailto:dpsmith@usgs.gov)>

Dave,

b5 - AC



Mike Gieryic  
Attorney-Adviser  
Office of the Regional Solicitor  
U.S. Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
Phone: (907) 271-1420; Fax: (907) 271-4143  
[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)

On Fri, Feb 9, 2018 at 10:03 AM, Houseknecht, David <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)> wrote:  
Hi Mike:

John Pearce and Durelle Smith (USGS Anchorage) have become involved in the 1002 Area map issue and are discussing it with counterparts in FWS and BLM. Has there been any decision made regarding next steps?

I'm up to my ears in technical aspects of the 1002 Area seismic data and related things, so feel free to communicate directly with John and Durelle if you choose.

On another topic, I met with SOI in DC yesterday regarding (b) (5) - ACP I discussed with you last week - Karen Hawbecker, Jack Haugrud, and one other person attended from SOI. They were great - thanks for the recommendation. They plan to produce an opinion within two weeks.


Cheers,

Dave Houseknecht  
U.S. Geological Survey  
[12201 Sunrise Valley Drive](#)  
MS 956  
Reston, VA 20192  
(703) 648-6466

**From:** [Siekaniec, Greg](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE  
**Date:** Friday, February 9, 2018 3:02:57 PM

---

thank you. b5 - AC/DP



greg

On Fri, Feb 9, 2018 at 12:01 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

FYI.

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Friday, February 09, 2018 11:32 AM  
**To:** Miriam (Nicole) Hayes; Wendy Loya  
**Subject:** Fwd: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE

Recent email on the map.

Nicole, if you need further information, I would follow-up with Mike.

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

**From:** Gieryic, Michael <[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)>  
**Date:** Fri, Feb 9, 2018 at 11:16 AM  
**Subject:** Re: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE  
**To:** "Houseknecht, David" <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)>



Cc: "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Durelle Smith <[dpsmith@usgs.gov](mailto:dpsmith@usgs.gov)>

Dave,

b5 - AC



b5 - AC



Mike Gieryic  
Attorney-Adviser  
Office of the Regional Solicitor  
U.S. Department of the Interior  
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[Anchorage, AK 99508](#)  
Phone: (907) 271-1420; Fax: (907) 271-4143  
[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)

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I'm up to my ears in technical aspects of the 1002 Area seismic data and related things, so

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feel free to communicate directly with John and Durelle if you choose.

On another topic, I met with SOI in DC yesterday regarding (b) (5) - ACP I discussed with you last week - Karen Hawbecker, Jack Haugrud, and one other person attended from SOI. They were great - thanks for the recommendation. They plan to produce an opinion within two weeks.

Cheers,

Dave Houseknecht

U.S. Geological Survey

[12201 Sunrise Valley Drive](#)

MS 956

Reston, VA 20192

(703) 648-6466

**From:** [Siekaniec, Greg](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE  
**Date:** Friday, February 9, 2018 5:43:31 PM

---

Yes, please include Bud in our calls. I think b5 - AC/DP

greg

On Fri, Feb 9, 2018 at 2:38 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Yes, this response from Gieryic answered a different question than "what is the official boundary of 1002 area?", so that looks like a work in progress btwn BLM and FWS. b5 - AC/DP

I spoke with Bud today, can we include him in the biweekly calls like we had today?

Thank you, have a good weekend!

wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Hayes, Miriam (Nicole) [mailto:[mnhayes@blm.gov](mailto:mnhayes@blm.gov)]  
**Sent:** Friday, February 09, 2018 1:39 PM  
**To:** Wendy Loya  
**Cc:** John Pearce  
**Subject:** Re: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE

Hi Wendy,

Yes - I think the "official boundary" may be fleshed out in the coming months and the

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boundary for purposes of estimating acreage will be based in part off the GIS data provided by FWS as well as the official survey and master title plat boundary. Will share when I have something.

Have a nice weekend!

Nicole

**Nicole Hayes**

Project Coordinator

Bureau of Land Management

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

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

On Fri, Feb 9, 2018 at 12:04 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

This is an important interpretation, but perhaps not the question BLM Cartography is asking about in preparing the map for the NOI, which I believe is: What is the official boundary of the 1002 area?

So I believe FWS needs to share a GIS file with BLM that accomplishes that, is that correct Nicole?

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]

**Sent:** Friday, February 09, 2018 11:32 AM

**To:** Miriam (Nicole) Hayes; Wendy Loya

**Subject:** Fwd: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE

Recent email on the map.

Nicole, if you need further information, I would follow-up with Mike.

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

From: **Gieryic, Michael** <[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)>

Date: Fri, Feb 9, 2018 at 11:16 AM


Subject: Re: Arctic Refuge map issue - CONTAINS SOLICITOR ADVICE - DO NOT RELEASE

To: "Houseknecht, David" <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)>

Cc: "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Durelle Smith <[dpsmith@usgs.gov](mailto:dpsmith@usgs.gov)>

Dave,

b5 - AC



Mike Gieryic  
Attorney-Adviser  
Office of the Regional Solicitor  
U.S. Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)

0000011585

Phone: (907) 271-1420; Fax: (907) 271-4143  
[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)

On Fri, Feb 9, 2018 at 10:03 AM, Houseknecht, David <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)> wrote:

Hi Mike:

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On another topic, I met with SOI in DC yesterday regarding the **(b) (5) - ACP** I discussed with you last week - Karen Hawbecker, Jack Haugrud, and one other person attended from SOI. They were great - thanks for the recommendation. They plan to produce an opinion within two weeks.

Cheers,

Dave Houseknecht

U.S. Geological Survey

[12201 Sunrise Valley Drive](#)

MS 956

Reston, VA 20192

(703) 648-6466

**From:** [Siekaniec, Greg](#)  
**To:** [Devaris, Aimee](#); [Karen Mouritsen](#)  
**Cc:** [Karen Clark](#); [Wendy Loya](#)  
**Subject:** Re: USGS projects in ANWR this year  
**Date:** Wednesday, February 14, 2018 10:13:28 AM

---

Thank you Aimee. Looks like a busy season coming up.

greg

On Tue, Feb 13, 2018 at 2:19 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

Hi Greg and Karen,

Water and Science asked us for a list of our planned projects in the 1002 this summer, so I figured I would share with you as well. Depending on our discussions, we may add to this list, but this is what we currently have in the queue.

Karen, it sounded like BLM was handling the water resource assessment work for 1002, but if you need help from USGS, let me know.

Also I understand NSB put in a proposal for matching funds for lidar acquisition under our 3D Elevation Program. So that may happen this summer if we get a budget.

Regards,  
Aimee

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**From:** [Pearce, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Nicole Hayes](#)  
**Subject:** Re: Our interagency meeting this Friday overlaps with Seismic Presentation 10-12  
**Date:** Wednesday, February 14, 2018 10:56:04 AM  
**Attachments:** [USGS 1002 ongoing work to W&S.xlsx](#)

---

Hi Wendy,

The spreadsheet is attached. Let me know if you need more information on this.

JP

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S.Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Wed, Feb 14, 2018 at 8:53 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

John and Nicole,

Should we reschedule our Friday meeting? It looks like we are all available from 9-10am Friday or 1230-130pm. Or Thursday 1-2pm.

John, can you share the list of USGS activities this summer in the 1002 area? Greg Siekeniec forwarded email but not attachment.

Thanks,

Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska



907.786.3532 (office)

907.227.2942 (mobile)

Project	USGS PI name	Region/Center	Partners	USGS FY18 funding	Other funding	Coastal Plain (1002 area) location of work	Timeline
Polar bear movements and denning	Todd Atwood	Alaska/Alaska Science Center (ASC)	USFWS	\$422K (existing USGS Ecosystems), \$322K (additional USGS Ecosystems in FY18)		Off shore tagging	Continuation of ongoing work with special concentration in March 2018 on eastern Beaufort sea to increase observations of denning in the ANWR 1002 Area
Fish of nearshore Beaufort Sea	Vanessa Von Biela	Alaska/ASC	USFWS, University of Texas at Austin	\$196K USGS/BOEM Outer Continental Shelf Program		Coastal lagoons, estuaries and beaches	Continuation of summer fish sampling (2017-2020) along ANWR coast to compare with 1988-1991 sampling
Shoreline change	Li Erikson	Pacific/Pacific Coastal & Marine Science Center	University of Texas at Austin, University of California Santa Cruz	\$50K USGS Natural Hazards		Coastal bluffs and beaches	Continuing work in summer 2018
Reprocessing vintage 2D seismic data of 1002 Area	David Houseknecht	Midwest/Eastern Energy Resources Science Center (EERSC)	BOEM	\$2M USGS Energy & Minerals (includes \$888K of FY17 money to be applied to reprocessing work carried out in 2018)		Across terrestrial locations of the 1002 and adjacent nearshore areas where ANWR seismic data was collected	Reprocessed vintage 2D seismic data to be delivered in July 2018. Interpretation and mapping based on that data through fourth quarter FY2018.
Sample collection (field work) and laboratory analysis	David Houseknecht	Midwest/EERSC	FWS (logistical assistance), Alaska DNR (Geological & Geophysical Surveys, Division of Oil and Gas)	\$2.3M USGS Energy & Minerals		Across terrestrial locations of the 1002, adjacent state lands, and adjacent state and federal waters	Collect outcrop and well samples from external perimeter of 1002 Area, spring & summer 2018; conduct laboratory analyses on samples to determine petroleum prospectivity of region, summer & fall 2018.
Participate in leasing BLM workshops and transfer knowledge from ongoing research	David Houseknecht	Midwest/EERSC	USGS supporting mission of BLM	\$200K USGS Energy & Minerals		Across terrestrial locations of the 1002	Provide support to BLM to inform preparation for lease sales in 1002 Area
Permafrost and climate data collection	Frank Urban	Southwest/Geosciences & Environmental Change Science Center	BLM, FWS (collaborators)	~\$20K USGS Climate and Land Use		Across northern AK including locations of the 1002	Annual field work during summer 2018 possibly coincident with Houseknecht's field season; network is part of the Global Terrestrial Network for Permafrost (GTN-P)
Caribou forage and movements	Heather Johnson	Alaska/ASC	Alaska Department of Fish and Game (ADF&G), Texas A&M University	\$350K USGS Ecosystems	\$75K ADF&G	Outside of 1002 area, but some tagged Central Herd animals migrate into 1002	Collaring and tracking animals through 2020, ongoing publication writing, new analysis of caribou habituation to existing infrastructure

**From:** [Wright, Brian](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Kacy Krieger](#); [John Trawicki](#); [Julie Michaelson](#)  
**Subject:** Re: Short deadline: need info on estimate to do NDHD for 1002 area of Arctic NWR  
**Date:** Friday, February 23, 2018 10:45:30 AM

---

Wendy,

Crafting a response for you. We will have something to you by lunch time.

Brian

On Fri, Feb 23, 2018 at 8:17 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Kasey and Brian,

Julie Michaelson at FWS gave me your contact info as likely being able to help me come up with a general cost estimate for the following task, with the first part not italicized likely being the request I have of you.

Develop NHDPlus High Resolution hydrography framework, which extends the hydrologic network seamlessly across the terrain by sub-watershed units and stream channels for 1D and 2D channels. Directional flow will be mapped throughout the catchment areas. Open water bodies to include lakes and ponds will be extracted using hydro- enforced elevation data and recently acquired ortho-imagery. *Observational data on the drainage network, such as water quality samples, stream gauge measurements, or fish distribution, would be linked to the framework, integrating data and facilitating analyses required during all phases of exploration and development.* (Cost to support existing NHD efforts and training for staff: \$\$\$, potential leads: USGS, USFWS, BLM, other Cooperating Agencies)

Could either of you call or email me to discuss or provide an estimate? I could really use this info by 2pm today. Welcome any feedback on the project description as well.

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)

907.227.2942 (mobile)

--

Brian Wright

National Map Liaison - Alaska

US Geological Survey

4210 University Drive

Grace Hall, Room 228

Anchorage, AK 99508

Office/Cell: 907-201-0113

Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

**[The National Map](#) - Your Source for Topographic**



**From:** [Pearce, John](#)  
**To:** [Miriam \(Nicole\) Hayes](#); [Wendy Loya](#)  
**Subject:** USGS presentation to NSB Planning Commission  
**Date:** Friday, February 23, 2018 1:07:29 PM  
**Attachments:** [USGS Pearce NSB planning meeting slides February 2018.pptx](#)

---

Gave this yesterday at the Planning Commission meeting in Barrow/Utqiagvik.

Did not include Vanessa Von Biela's fish work near Kaktovik and Frank Urban's climate station information since forgot to include and then added later.

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>



# **USGS 2018 Planned Activities in the North Slope Borough**

**John Pearce**

US Geological Survey, Alaska Science Center

[jpearce@usgs.gov](mailto:jpearce@usgs.gov), 907-786-7094

# What is the USGS?

---

- A research science agency within the Department of the Interior (DOI)
- Don't manage any land or resources
- Focus on DOI trust responsibilities and DOI lands (but also on topics important to society)
- Provide impartial science information for federal agencies and the public on earth processes, ecosystems and natural hazards

# What is the USGS?

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- Geology
- Energy and Minerals
- Water
- Natural Hazards
- Wildlife and Habitats



# Research on the North Slope:

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- Provide scientific data on the response of wildlife and their habitats to the rapid changes taking place in the Arctic
- Provide scientific data on natural hazards and energy resources
- Make information available to Federal management agencies, the NSB and the public ([alaska.usgs.gov/products](http://alaska.usgs.gov/products))

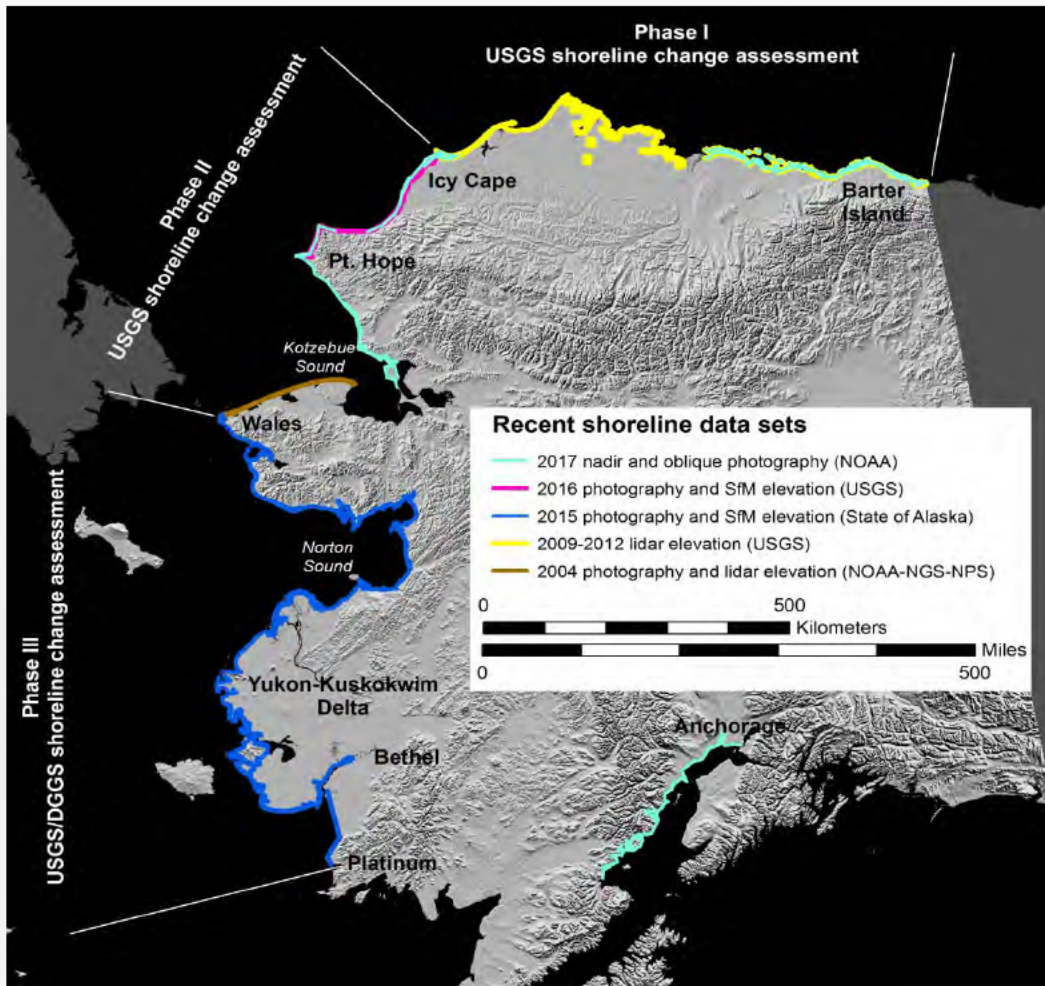
# Recent Publications:

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- USGS bibliography of studies in the NPR-A and the coastal plain (1002 area) of the Arctic National Wildlife Refuge  
([alaska.usgs.gov/science/interdisciplinary\\_science/cae](http://alaska.usgs.gov/science/interdisciplinary_science/cae))
- Summary of Wildlife-related Research on the Coastal Plain of the Arctic National Wildlife Refuge, Alaska, 2002-17  
([pubs.er.usgs.gov/publication/ofr20181003](http://pubs.er.usgs.gov/publication/ofr20181003))

# Ongoing Research:

- USGS Coastal Marine Geology Group



USGS Digital Data Series  
Photographs and Position Information

<http://pubs.usgs.gov/ds/436/>  
<http://pubs.usgs.gov/ds/503/>

Oblique Aerial Photography of the Arctic Coast of Alaska, Kulevik to Demarcation Point, August 7-10, 2006

Data Series 436  
U.S. Department of the Interior  
U.S. Geological Survey

Oblique Aerial Photography of the Arctic Coast of Alaska, Cape Sabine to Milne Point, July 16-19, 2009

Data Series 503  
U.S. Department of the Interior  
U.S. Geological Survey

USGS Lati: 759412013

# Ongoing Research:

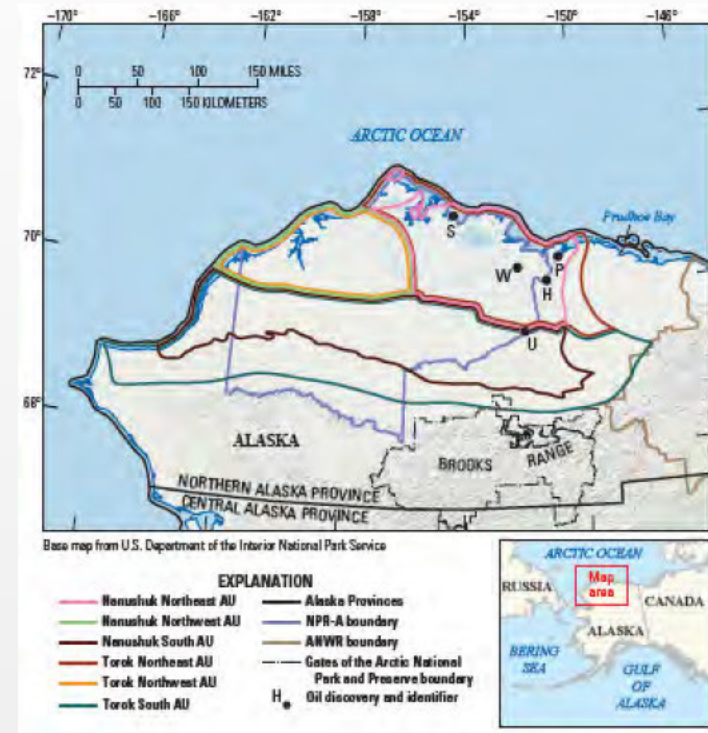
---

- **USGS Coastal Marine Geology Group**
- In 2018, will focus on coastal erosion, shoreline change of the Barter Island area
- No aircraft except a drone that will be flown 15 to 30 feet off the ground along the coastline near Barter Island
- Two visits:
  - Late June/early July
  - Late September/early October depending upon whaling activities and weather



# Ongoing Research:

- **USGS Energy Resources Program**
- USGS completed an updated assessment of NPR-A in December 2017 ([doi.org.10.3133/fs20173088](https://doi.org/10.3133/fs20173088))
- USGS will complete an energy resource assessment of the coastal plain (1002 area) by January 1, 2019
- June-July 2018 field work on the coastal plain



# Ongoing Research:

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- **USGS Caribou Research Program**
- Continue to monitor movements, habitat-use, survival and reproduction of Central Arctic Caribou Herd (with ADF&G)
- How do changes in climate and energy infrastructure influence behavior and population dynamics of caribou?
- Recover caribou collars from mortalities (1 day in August via helicopter)



# Ongoing Research:

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- **USGS Caribou Research Program**
- Maintain 11 weather stations (2-3 days in May) within the summer range of Central Herd



# Ongoing Research:

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# Ongoing Research:

- **USGS Colville River Delta Research**
- Continue to monitor growth of snow goose population
- Canadian and U.S. agencies want information because snow geese can become over populated
- Early June (3 weeks) depending on funding
- Late July-early August (5 days)



# Ongoing Research:

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- **USGS Goose Forage Research**
- What effect does goose grazing have on tundra plants?
- Can low density areas support greater numbers of geese in the future?
- Mid-June (3-5 days) using BLM helicopter at Inigok
- Late July/Early August (5 days) at Inigok



# Ongoing Research:

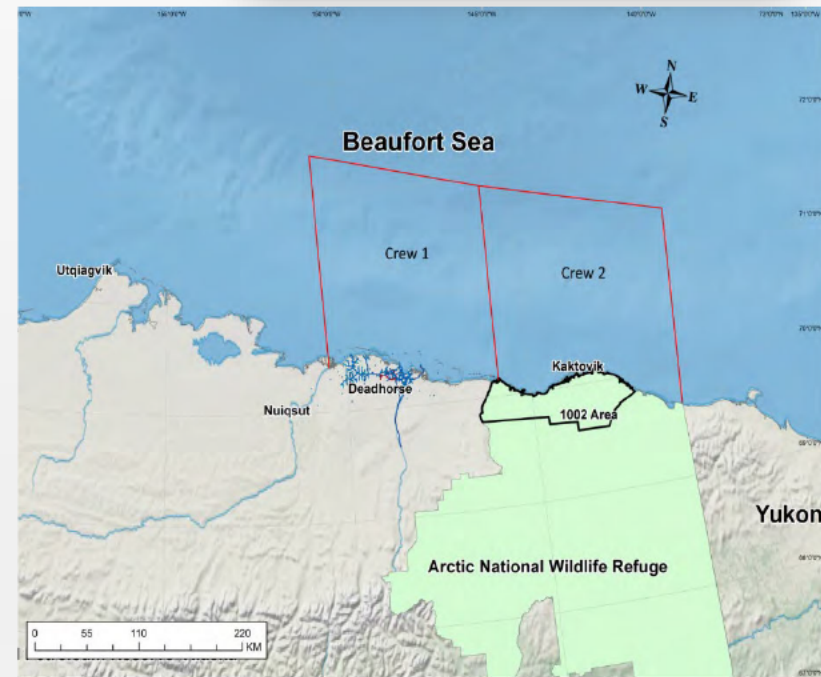
---

- **USGS Pacific Walrus Research**
- Estimate number of walrus at the Point Lay onshore haulout using drones and radio tags
- August-September 2018
- Discussed options for population surveys with Native Village of Point Lay Tribal Council (November 2017)
- Discussed with Eskimo Walrus Commission (December 2017)
- Awaiting feedback from full Point Lay community meeting



# Ongoing Research:

- **USGS Polar Bear Program**
- Mark 30 bears with satellite ear tags to monitor population and evaluate FLIR-based winter den surveys to map habitat
- What is the potential for disturbance of denning bears by seismic exploration?
- Mid-March to early April (two crews) based in Deadhorse



# Additional activities:

---

## USGS/BOEM Coastal Fish Survey

- Species composition in coastal lagoons near Katkovik to compare with historical sampling



# **USGS 2018 Planned Activities in the North Slope Borough**

**John Pearce**

US Geological Survey, Alaska Science Center

[jpearce@usgs.gov](mailto:jpearce@usgs.gov), 907-786-7094

**From:** [Wendy Loya](#)  
**To:** [Julie Michaelson](#); [John Trawicki](#); [Janet Jorgenson](#)  
**Subject:** FW: Short deadline: need info on estimate to do NDHD for 1002 area of Arctic NWR  
**Date:** Thursday, March 1, 2018 12:36:31 PM  
**Attachments:** [AK Hydro Status.docx](#)

---

FYI, this was part of our information gathering towards the Priority Information Needs list. I understand that working with Saint Mary's, or a similar contractor if exists, to do Wetlands Inventory with integrated hydrography is a more efficient use of time and resources.

Thank you,  
Wendy

**From:** Wright, Brian [mailto:[bwright@usgs.gov](mailto:bwright@usgs.gov)]  
**Sent:** Friday, February 23, 2018 12:45 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Julie Michaelson <[julie\\_michaelson@fws.gov](mailto:julie_michaelson@fws.gov)>; Kacy Krieger <[kekrieger2@alaska.edu](mailto:kekrieger2@alaska.edu)>  
**Subject:** Fwd: Short deadline: need info on estimate to do NDHD for 1002 area of Arctic NWR

Wendy,

Attached is an overview of the status and cost to complete hydro updates for AK.

Below is a cost estimate for the 10-02 area.

Brian

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

If it's just the 10-02 area, we could estimate the cost like this:

**1:24,000 NHD updates: \$47,200** ((*area: 2400 sq miles*) x (*cost estimated to cost \$13 per sq mi - this is a conservative estimate, it might be higher or lower, I'd need to dig into the area more to understand what challenges might arise*)) \* 51.2% (*example UAA Overhead*) = \$47200 price.

+ **Conflation and NHD Update: \$5000** (*\$5000 per conflate subbasin/area - this area crosses 3 HU8s but are only small portions of each. Total area is approximately equivalent to one HU8*)

+ **WBD Updates: \$15,000** (*2400 sq miles/663,300 sq miles \* \$4,000,000(statewide estimate)*)

+ **NHDPlus HR: \$19,000** (*2400 sq miles/663,300 sq miles \* \$5,000,000(statewide estimate)*)

**Total Estimated Cost: \$86,000**

Thanks,  
-Kacy

Kacy Krieger  
Alaska Hydrography Coordinator  
Alaska Center for Conservation Science  
University of Alaska Anchorage  
[3211 Providence Drive](#)  
[Anchorage, Alaska 99508](#)  
W: [\(907\) 786-7749](#)  
C: [\(907\) 414-5175](#)

On Fri, Feb 23, 2018 at 8:17 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Kasey and Brian,

Julie Michaelson at FWS gave me your contact info as likely being able to help me come up with a general cost estimate for the following task, with the first part not italicized likely being the request I have of you.

Develop NHDPlus High Resolution hydrography framework, which extends the hydrologic network seamlessly across the terrain by sub-watershed units and stream channels for 1D and 2D channels. Directional flow will be mapped throughout the catchment areas. Open water bodies to include lakes and ponds will be extracted using hydro- enforced elevation data and recently acquired ortho-imagery. *Observational data on the drainage network, such as water quality samples, stream gauge measurements, or fish distribution, would be linked to the framework, integrating data and facilitating analyses required during all phases of exploration and development.* (Cost to support existing NHD efforts and training for staff: \$\$\$, potential leads: USGS, USFWS, BLM, other Cooperating Agencies)

Could either of you call or email me to discuss or provide an estimate? I could really use this info by 2pm today. Welcome any feedback on the project description as well.

Thank you!  
Wendy

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

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
4210 University Drive

0000011612



Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

**[The National Map](#)** - Your Source for Topographic

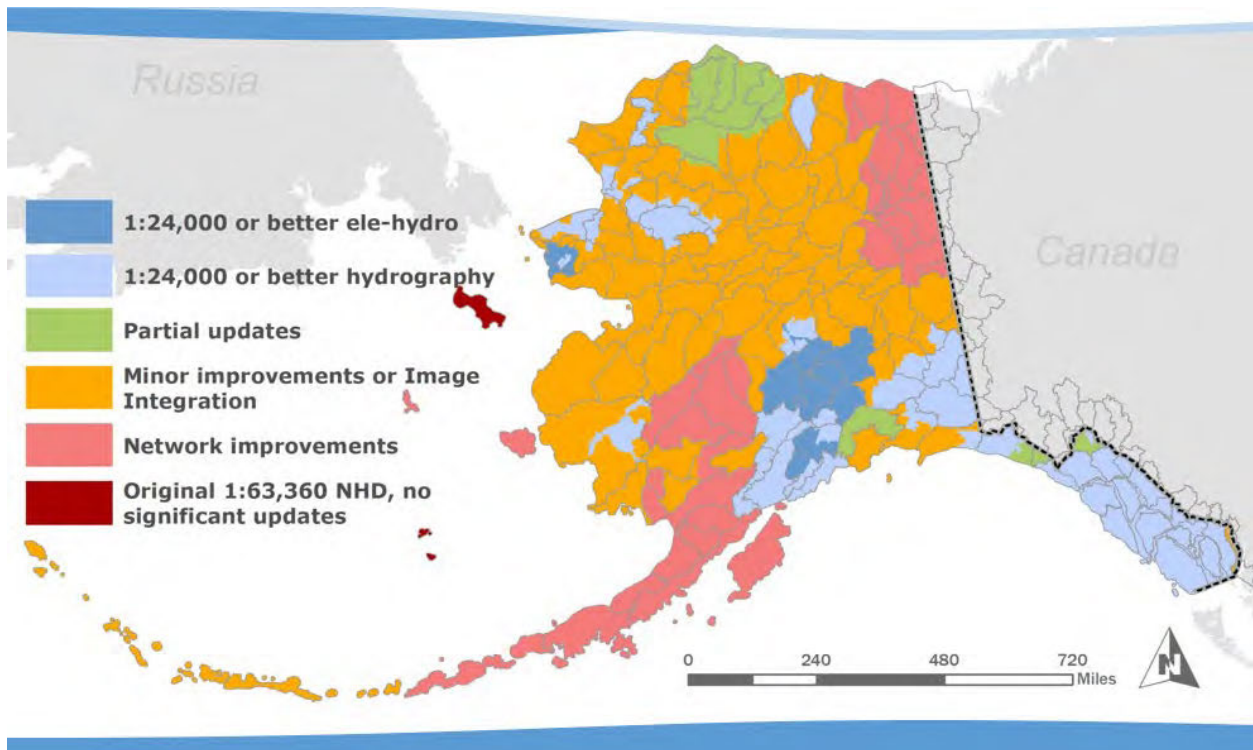


Wendy,

To get Alaska hydrography prepared for NHDPlus HR requires two steps.

The existing statewide hydrography mapped at a 1:63,360 scale needs to be updated to 1:24,000 mapping scale. Currently, **22%** of the state has been updated using the statewide elevation dataset (IfSAR), lidar, imagery and/or combination. ***Ideally, the hydro update would have used IfSAR or lidar before it is transitioned to NHDPlus HR.*** This level of hydro is often referred to as Ele Hydro and is the minimum recommended level of update for NHDPlus HR to occur by the Alaska Hydrography Technical Workgroup (AHTWG). **15%** of the state has been updated to an Ele-hydro level.

Figure 1 – Current status of updating Alaska hydrography to a 1:24,000 scale



Once the hydro has been updated to a 1:24,000 scale, it then can be transitioned to NHDPlus HR. The USGS, National Hydrography Dataset (NHD) national program has contracted the transition of existing NHD to NHDPlus HR through Horizons Systems.

For Alaska, the Mat Su basin was selected as a pilot NHDPlus HR project. The Mat Su was the only basin/watershed that had been updated to an Ele-hydro level at the time of the contract award. The remaining hydro updates had been done using a variety of datasets. The USGS national program is willing to update these additional updates to NHDPlus HR once federal funding becomes available but with the caveat the updates were not completed to an Ele-hydro level specification.

To date, the statewide approach to update the hydrography has been through a collaborative effort among partners within AHTWG. A **\$10 million** cost estimate to update the remaining portion of the state to an Ele-hydro level has been calculated. This estimate is based on a collaborative effort where federal, state and local agencies, academia, and NGOs work together to fund and complete updates, working region by region. An additional **\$7.5 million** would then be need to transition the Ele-hydro to NHDPlus HR under the USGS – Horizons Systems.

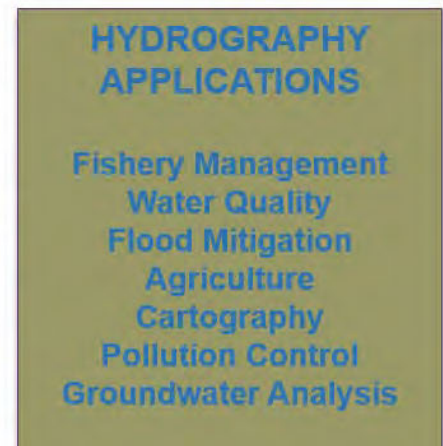
Figure 2 – Cost estimate to update Alaska hydrography

## USGS Alaska Hydrography Data

20

### Update Alaska Hydrography Data to Meet 1:24,000 Specs

- 22% of the National Hydrography Dataset (NHD) for Alaska has been updated since 2010.
- \$17.5M is estimated to complete Alaska NHD, Alaska Watershed Boundary Dataset, and Alaska NHD+.
- The Hydrography Requirements and Benefits Study (HRBS) conservatively estimates that updated Alaska hydrography data would provide an annual benefit of \$17.9M.



A second option, one where hydrography updates are completed through a contractor via a USGS Geospatial Product Service Contract (GPSC) is estimated to cost approximately **\$30 million** to complete statewide update to Ele-hydro level and **\$7.5 million** to transition to NHDPlus HR.

Note: The collaborative approach has been in place for over 5 years and AHTWG has achieved the 22% based on the complexity of land management boundaries and state and federal partners not having a specific budget to preform hydro updates.

Figure 3 – Complexity of land management for hydro collaboration

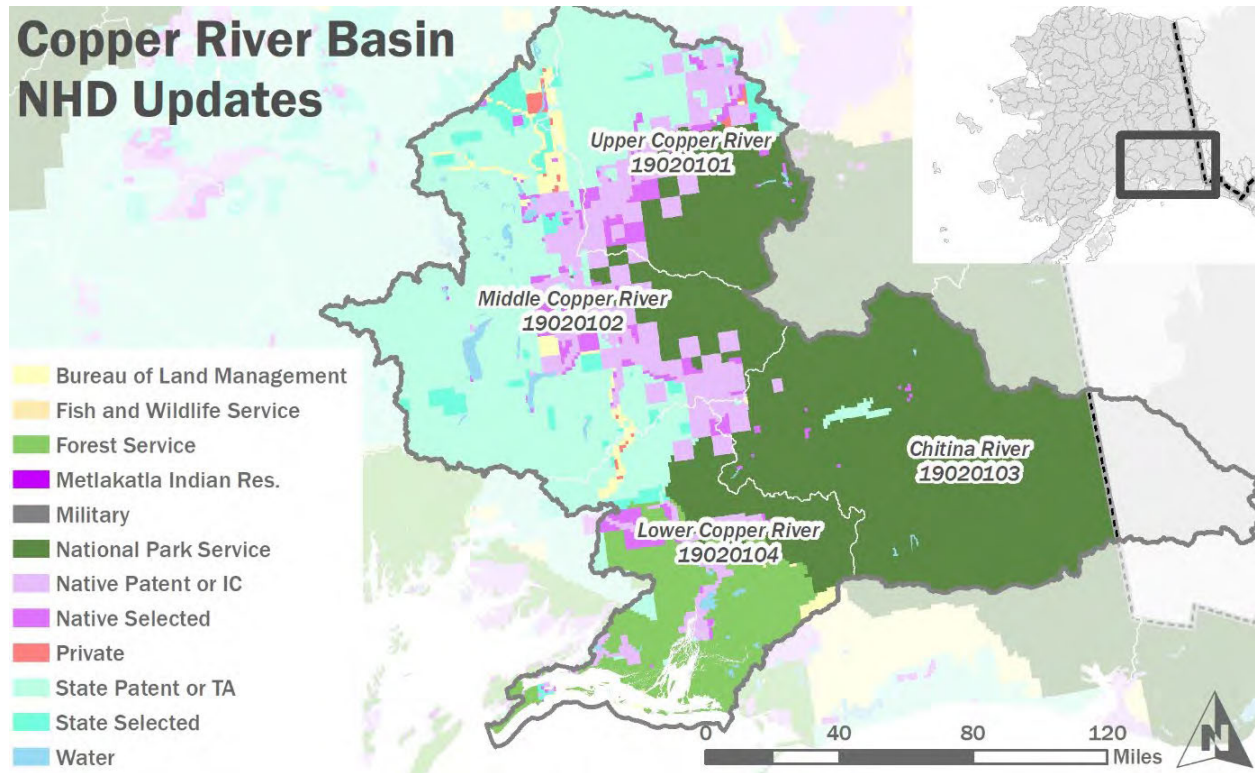


Figure 4 – Options to update Alaska hydrography to an Ele-hydro level

## Alaska Hydrography Update Options

Option 1	Option 2	Option 3
<p><b>AK Hydro Maintenance</b></p> <ul style="list-style-type: none"> <li>• Network improvement.</li> <li>• Image integration in preparation for US TOPO production.</li> <li>• Additional updates are based on partner needs and funding levels.</li> <li>• Work performed by USGS and AK Hydro with limited updates and contributions from agencies.</li> <li>• Not a complete statewide update.</li> <li>• 10+ years to completion.</li> <li>• Costs cover AK Hydro Staffing only</li> </ul> <p>Total Est. Cost <b>\$1,800,000 ±</b></p>	<p><b>Collaborative Updates</b></p> <ul style="list-style-type: none"> <li>• Full hydrography update based on validation and correction of elevation derived modeled stream network.</li> <li>• 2D features updated from existing datasets and Ifsar hydro masks.</li> <li>• Attributes from models, partners, and editors.</li> <li>• Work performed by USGS and through AK Hydro with edits, updates and validation by Universities and partners.</li> <li>• 5+ years to completion</li> <li>• Costs cover AK Hydro Staffing and updates</li> <li>• Updates at \$13.00/mi<sup>2</sup></li> </ul> <p>Total Est. Cost <b>\$10,300,000 ±</b></p>	<p><b>Statewide Contract</b></p> <ul style="list-style-type: none"> <li>• Full hydrography update based on validation and correction of elevation derived modeled stream network.</li> <li>• 2D features updated from existing datasets and Ifsar hydro masks.</li> <li>• Work performed by contracted vendor.</li> <li>• Partner support through AK Hydro</li> <li>• Updates at \$55.00/mi<sup>2</sup></li> </ul> <p>Total Est. Cost <b>\$36,800,000 ±</b></p>

Based on these two options, AHTWG estimate that completing the 1:24,000 hydro updates and a transition to NHDPlus HR to cost between \$18 and \$38 million.

**From:** [Dufford, Sheila](mailto:Dufford_Sheila)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [Joanna Fox](mailto:Joanna.Fox); [Steve Berendzen](mailto:Steve.Berendzen)  
**Subject:** Fwd: FY17/18 BAA Lidar Proposal - 1002 Area  
**Date:** Thursday, March 8, 2018 11:14:31 AM

---

FYI

If you are thinking you need higher resolution elevation data than the 5m IfSAR. The RO staff may be on top of this. I find out through the FWS Remote Sensing Task Group.

**Sheila J. Dufford**  
**Biologist / GIS Specialist**  
**Yukon Flats National Wildlife Refuge**  
**101 12th Avenue, Room 264**  
**Fairbanks, AK 99701**  
**907-456-0307**  
[sheila\\_dufford@fws.gov](mailto:sheila_dufford@fws.gov)  
[http://www.fws.gov/refuge/Yukon\\_Flats/](http://www.fws.gov/refuge/Yukon_Flats/)

*There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle. - Albert Einstein*

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

**From:** **Wright, Brian** <[bwright@usgs.gov](mailto:bwright@usgs.gov)>  
**Date:** Thu, Mar 8, 2018 at 8:55 AM  
**Subject:** Re: FY17/18 BAA Lidar Proposal - 1002 Area  
**To:** Kenneth Elsner <[kenneth\\_elsner@fws.gov](mailto:kenneth_elsner@fws.gov)>  
**Cc:** [sheila\\_dufford@fws.gov](mailto:sheila_dufford@fws.gov)

I should have noted the 'blue' in the graphic is the IfSAR which has been completed for ANWR/1002. Sorry.

On Thu, Mar 8, 2018 at 8:53 AM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Kenneth,

I am the USGS National Map Liaison for Alaska. I assist with the statewide IfSAR collection and coordinate Broad Agency Announcement (BAA) lidar proposals for 3DEP.

In the recent weeks, I have had several conversations with US Fish and Wildlife staff in the Alaska Region regarding elevation and hydro data and the potential for new lidar acquisition.

I wanted to make you aware there is a pending BAA award to the North Slope Borough (G17PS00746/G17AS00116) for QL1 lidar collection for 8# communities on the north slope. Katovik is one of the communities to be collected (attachment).

Having a contractor to collect data in AK is half the cost battle. I wanted to make you aware of the possibility for FWS to work with the GPSC contractor that is selected once the NSB is officially awarded a BAA. NSB is interested in expanding the geographic extent collected by any additional funding source are not subject to BAA matching funding.

0000011617

To collect QL1 lidar for 1002: 2400 sq/miles @ \$750 sq/mile = \$1.8 million

Brian

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

[The National Map](#) - Your Source for Topographic



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Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

[The National Map](#) - Your Source for Topographic



**From:** [Dufford, Sheila](#)  
**To:** [John Trawicki](#); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [Joanna Fox](#); [Steve Berendzen](#)  
**Subject:** Fwd: FY17/18 BAA Lidar Proposal - 1002 Area  
**Date:** Thursday, March 8, 2018 11:20:36 AM  
**Attachments:** [1002.png](#)

---

Sorry for the duplicate sending, but first message did not have the graphic.

**Sheila J. Dufford**  
**Biologist / GIS Specialist**  
**Yukon Flats National Wildlife Refuge**  
**101 12th Avenue, Room 264**  
**Fairbanks, AK 99701**  
**907-456-0307**  
[sheila\\_dufford@fws.gov](mailto:sheila_dufford@fws.gov)  
[http://www.fws.gov/refuge/Yukon\\_Flats/](http://www.fws.gov/refuge/Yukon_Flats/)

*There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle. - Albert Einstein*

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

**From:** **Wright, Brian** <[bwright@usgs.gov](mailto:bwright@usgs.gov)>  
**Date:** Thu, Mar 8, 2018 at 8:53 AM  
**Subject:** FY17/18 BAA Lidar Proposal - 1002 Area  
**To:** Kenneth Elsner <[kenneth\\_elsner@fws.gov](mailto:kenneth_elsner@fws.gov)>  
**Cc:** [sheila\\_dufford@fws.gov](mailto:sheila_dufford@fws.gov)

Kenneth,

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I wanted to make you aware there is a pending BAA award to the North Slope Borough (G17PS00746/G17AS00116) for QL1 lidar collection for 8# communities on the north slope. Katovik is one of the communities to be collected (attachment).

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To collect QL1 lidar for 1002: 2400 sq/miles @ \$750 sq/mile = \$1.8 million

Brian

--  
Brian Wright

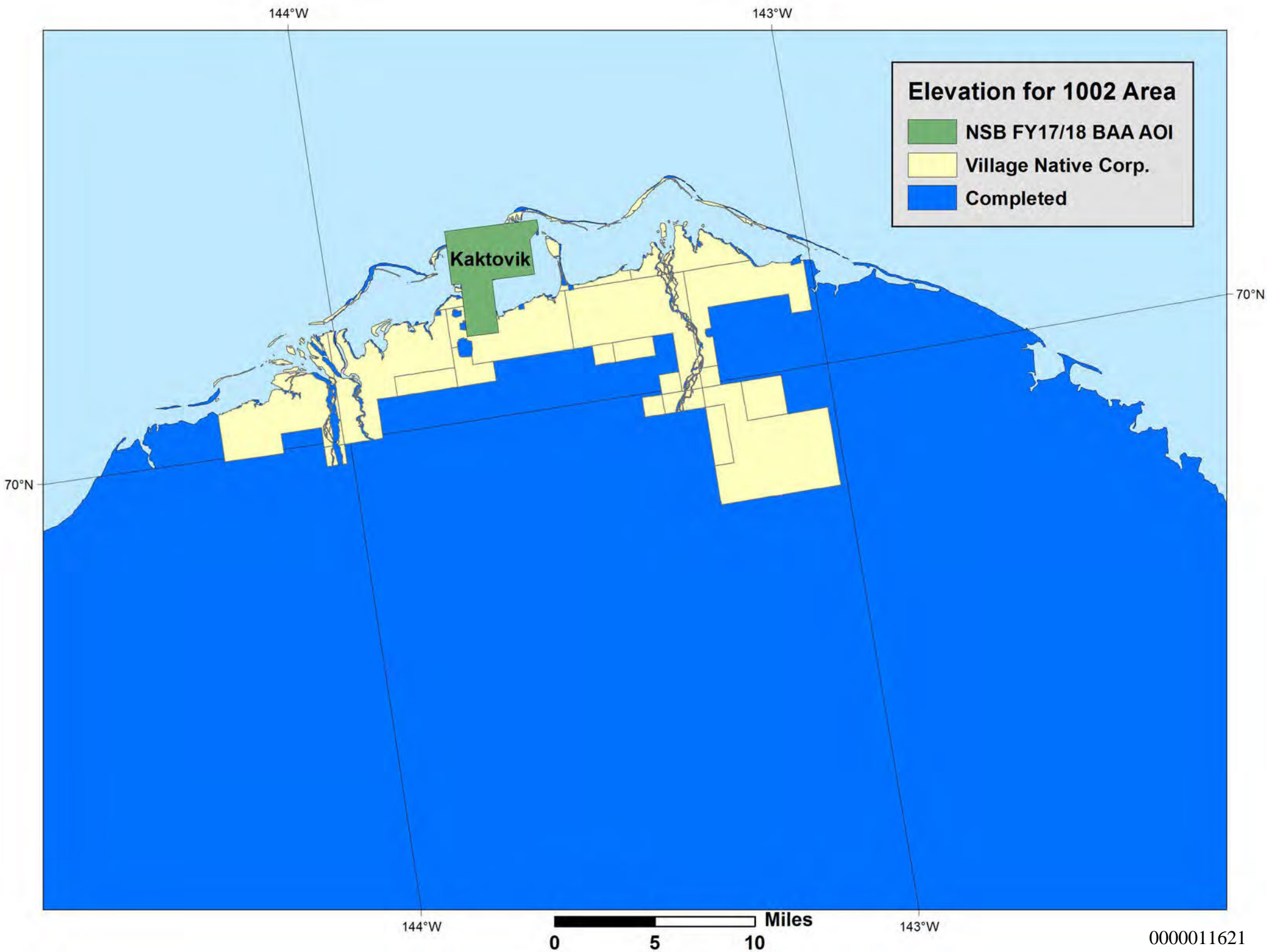
0000011619

National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

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**From:** [Greg Siekaniec](mailto:Greg.Siekaniec)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Arctic Science data call  
**Date:** Monday, March 12, 2018 1:15:59 PM

---

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Devaris, Aimee" <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** March 9, 2018 at 3:24:17 PM AKST  
**To:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Cc:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, James Kendall <[james.kendall@boem.gov](mailto:james.kendall@boem.gov)>, Mark Fesmire <[mark.fesmire@bsee.gov](mailto:mark.fesmire@bsee.gov)>, Lynn Polacca <[lynn.polacca@bia.gov](mailto:lynn.polacca@bia.gov)>, Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>, "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>  
**Subject: Re: Arctic Science data call**

Hi Steve,

In addition to the previous USGS response, I would add a *potential* LiDAR acquisition which would overlap portions of NPRA and ANWR. The NSB proposed grant assistance from USGS 3DEP for LiDAR acquisition in 2018 for its populated areas. NSB would provide \$120,250 plus \$205,000 in-kind, and USGS would contribute \$460,000. This would potentially include Kaktovik, Deadhorse/Prudhoe Bay, Nuiqsut, Atquasuk and Barrow/Utqiagvik.

This project is likely to be approved when we receive our 2018 budget.

Thanks,  
Aimee

On Wed, Feb 21, 2018 at 4:56 PM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Team-

Just a follow up on Dep Sec's data call for Arctic research activities. Could you please use the attached excel as a template (adding one more column for anticipated publish or data release date) for all of your scientific research and enforcement actions that may have impacts to the eastern half of the US Arctic.

This includes subsistence research/enforcement, any science grants to the state or academia, or any international treaty work.

0000011622

Jim/Mark- For your agencies this should focus on near shore/terrestrial, i.e. Polar Bear.

Can this get done in the next three weeks? This is a priority. If any of your DC offices delay the response to this data call please let me and your respective Assistant Secretaries (cc'd) know.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**From:** [Loya, Wendy](mailto:Wendy.Loya@fws.gov)  
**To:** [Greg Siekaniec](mailto:Greg.Siekaniec@fws.gov)  
**Cc:** [Karen Clark](mailto:Karen.Clark@fws.gov)  
**Subject:** Re: Airborne snow mapping in 1002 area next month  
**Date:** Friday, March 23, 2018 1:00:59 PM

---

Agreed. Clearly the information shared last week without Amy or John Pearce on the phone did not get communicated, and also a lot has happened in the last week.

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, Mar 23, 2018 at 10:09 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

FYI

We will need to be able to answer these type of questions on all the projects.

Greg  
Sent from my iPad

Begin forwarded message:

**From:** "Devaris, Aimee" <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** March 23, 2018 at 9:36:24 AM AKDT  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Subject:** Fwd: Airborne snow mapping in 1002 area next month

Hi Greg and Karen,

This is the kind of thing I'm hoping we can discuss next week. This is new work apparently being undertaken by USGS, and it's not clear to me what the relative priority is or how useful it will be. Thus far, I understood the need for snow depth information to be related to water availability in terms of the EIS. Is this snow drift modeling for polar bear den habitat needed for the IHA? I hadn't heard of this requirement before.

Thanks,  
Aimee

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

**From:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Date:** Thu, Mar 22, 2018 at 2:56 PM  
**Subject:** Airborne snow mapping in 1002 area next month  
**To:** Todd Atwood <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>, George Durner

<[gdurner@usgs.gov](mailto:gdurner@usgs.gov)>, Patrick Lemons  
<[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>, Craig Perham  
<[craig.perham@boem.gov](mailto:craig.perham@boem.gov)>  
Cc: Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Paul Leonard  
<[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>,  
Matthew Sturm <[msturm1@alaska.edu](mailto:msturm1@alaska.edu)>

Dear Beaufort Sea Polar Bear Researchers,

Please share with others as needed...

The FWS Arctic LCC has been working with Matthew Sturm (UAF) and Frank Urban (USGS) to identify a preliminary study to gather information on snow depth in the Arctic National Wildlife Refuge 1002 area. Matthew was able to secure funding to fly LiDAR and Structure for Motion imagery over a select area of the coastal plain, and now we are looking for feedback on areas of interest. We see this as an opportunity to have data at three scales for a point in time (April 10-19, 2018): ground measurements, aircraft based imagery and satellite remote sensing data, to give us some quantitative information to inform further discussions. Our goals are two-fold: 1) To work with you all to determine if we can refine existing models or work with to create new models that annually identify snow drifts with highest probability to create potential polar bear denning habitat; and 2) to establish how to monitor for minimum snow required for winter tundra travel to protect taller stature vegetation (tussocks and shrubs) in the 1002 area during exploration and development.

Frank Urban would lead the ground survey team by snowmachine while Matthew and Chris Larson fly. Frank has three remote snow/temperature monitoring stations on the 1002 Coastal Plain, including Camden Bay, March Creek and Niguanik. They have proposed the following for the snow survey, but are looking from feedback on what areas would be of interest:

*Are there any priority areas in the 1002 area that you would want to see mapped for snow depth? with the budget we have, and time, we can cover two **15 by 4 km swaths**. Our current plan is to lay these over areas that we measured in 2014 with some measurements in 2015. One swath would be from Camden Bay*

*south to Marsh Creek; the other from just south of Kaktovik SE to Niguanik. If there is some other location that has high priority please let us know.*

*Our field protocols emphasize the collection of a large number of snow depth values, which allow us to proof the structure from motion snow depth maps. we will also collect some snow stratigraphy and density, which will allow us to convert depths to water and to think about over-snow trafficability issues. Other aspects of the snow of interest?*

I would be grateful for your feedback based on your knowledge and experience with polar bear denning to identify the what might be useful. I understand that early winter snow depth is potentially more relevant to polar bear denning habitat selection, but I do hope that this information will help us understand general snow depth/redistribution patterns associated with topography. I will also be consulting the Arctic National Wildlife Refuge staff for other insights into terrain variation that could affect snow depth for winter tundra travel.

Thank you in advance for your time. I know that those of you from USGS are out in the field looking for bears, but I hope you'll have a chance to share your thoughts early next week or let me know what additional information you may need and when you might be able to reply.

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)

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
[4210 University Drive](#)  
[Anchorage, Alaska](#)  
[907-786-7055](#)

**From:** [Devaris, Aimee](#)  
**To:** [National Snow & Ice Data Center](#)  
**Cc:** [Jeff Deems](#); [Wendy Loya](#); [Miriam Hayes](#); [John Pearce](#)  
**Subject:** Re: [National Snow & Ice Data Center] Update: Re: Arctic Alaska Snow Information (fwd)  
**Date:** Friday, March 30, 2018 12:43:51 PM

---

Hi Paul,

Just following up on this now -- as I was trying to find a contact for Fish and Wildlife and Bureau of Land Management in Alaska for this information. I've copied Wendy Loya from FWS and Nicole (Miriam) Hayes from BLM. They are trying to facilitate the cataloging of scientific information to establish a level of baseline information necessary to support the development of Environmental Impact Statements and other NEPA (National Environmental Policy Act) requirements.

It would be helpful for Nicole and Wendy to understand what data is available in terms of snow climatology in the 1002 area of the Arctic National Wildlife Refuge -- in terms of time and spatial scale.

I wanted to introduce them to you via this email. I think they will likely need technical assistance in accessing and using the data (unless there are simple products your center can provide), so we may need to draw in a local NOAA partner to help.

Thanks,  
Aimee

On Thu, Mar 1, 2018 at 10:25 AM, Paul (National Snow & Ice Data Center) <[nsidc@nsidc.org](mailto:nsidc@nsidc.org)> wrote:

## Please do not write below this line ##

You are registered as a cc on this help desk request and are thus receiving email notifications on all updates to the request.  
Reply to this email to add a comment to the request.

-----  
**Paul, Mar 1, 12:25 MST:**

Dear Dr. Cline and Dr. Devaris,

Thank you for contacting NSIDC. I see that Mary Jo directed you to the 0630 and GlobSnow products at NSIDC but didn't provide details for snow extent.

First, MOD10A1 and MYD10A1 have a snow cover parameter, which uses the Normalized Difference Snow Index (NDSI) and are updated daily, with temporal coverage dating back to 2000. The spatial resolution is 500m.

<http://nsidc.org/data/MOD10A1>

0000011628



<http://nsidc.org/data/MYD10A1>

Second, MOD10A2 and MYD10A2 have a snow extent parameter, but is an 8-day product with temporal coverage dating back to 2000.

<http://nsidc.org/data/MOD10A2>

<http://nsidc.org/data/MYD10A2>

Lastly, the Near-real-time Ice and Snow Extent (NISE) data set provides daily, global maps of sea ice concentrations and snow extent. The resolution is much lower compared to MODIS, however:

<http://nsidc.org/data/NISE>

Hopefully this helps, but please let us know if you have any questions.

Best regards,

Paul

---

NSIDC User Services

CIRES, 449 UCB

University of Colorado

Boulder, CO 80309-0449, USA

Phone: +1 303-492-6199

Fax: +1 303-492-2468

Email: [nsidc@nsidc.org](mailto:nsidc@nsidc.org)

URL: <http://nsidc.org>

Twitter: @NSIDC

National Snow and Ice Data Center \* Distributed Active Archive Center

---

**Mary Jo Brodzik, Feb 28, 10:00 MST:**

Dear USO:

Please see message below from Dr. Cline, including questions from Dr. Devaris, about Alaskan North Slope snow climatology. I have told them about GlobSnow and the new 0630 data, but didn't go into details about snow extent. I also pointed out that it will depend on the time period she's interested in, but deferred to your advice on the broader range of potential data that may be available to her.

Please help Dr. Devaris directly with her questions.

Mary Jo

~~~~~  
Mary Jo Brodzik, Senior Associate Scientist, 303-492-8263  
NSIDC/CIRES, Univ. of Colo. at Boulder, 449 UCB, Boulder, CO 80309-0449  
~~~~~

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

Date: Wed, 28 Feb 2018 09:14:37 -0500  
From: Donald Cline <[dcline@usgs.gov](mailto:dcline@usgs.gov)>  
To: [jeff.deems@nsidc.org](mailto:jeff.deems@nsidc.org), [brodzik@nsidc.org](mailto:brodzik@nsidc.org)  
Cc: Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
Subject: Re: Arctic Alaska Snow Information

> On Feb 28, 2018, at 9:08 AM, Donald Cline <[dcline@usgs.gov](mailto:dcline@usgs.gov)> wrote:  
>  
> Mary Jo, Jeff,  
>  
> It's been a long time - I hope all is well with you.  
>  
> I'd like to introduce you via this email to Aimee Devaris, USGS's  
> Regional Director for Alaska. Aimee needs current and climatological  
> information on snow conditions on Alaska's North Slope. The work of UAF  
> in the Kuparuk basin is useful but is limited to that area; elsewhere,  
> the lack of accessibility has resulted in very little detailed snow  
> information in that region. The passive microwave record may be the  
> best tool we have to get a handle on the climatology, and we may have  
> some ability to conduct some field work to get a closer look at current  
> conditions.  
>  
> I'm not certain how good PM SWE retrieval may be in that area, with  
> ocean and mountains so close to the area of interest. But I'd very much  
> appreciate any insights you could provide to assist Aimee with her  
> needs.  
>  
> Best,  
> Don  
>  
> Dr. Donald W. Cline  
> Associate Director for Water Resources  
> U.S. Department of the Interior  
> U.S. Geological Survey

'

This email is a service from National Snow & Ice Data Center.

--  
**Aimee M. Devaris**  
Regional Director

U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**From:** [Aimee Devaris \(National Snow & Ice Data Center\)](#)  
**Cc:** [Jeff Deems](#); [Wendy Loya](#); [Miriam Hayes](#); [John Pearce](#); [Donald Cline](#)  
**Subject:** [EXTERNAL] [National Snow & Ice Data Center] Update: Re: [National Snow & Ice Data Center] Update: Re: Arctic Alaska Snow Information (fwd)  
**Date:** Friday, March 30, 2018 12:44:25 PM

---

## Please do not write below this line ##

You are registered as a cc on this help desk request and are thus receiving email notifications on all updates to the request.  
Reply to this email to add a comment to the request.

---

**Aimee Devaris, Mar 30, 12:44 MDT:**

This is a follow-up to your previous request #87211 "Re: Arctic Alaska Snow Info..."

Hi Paul,

Just following up on this now -- as I was trying to find a contact for Fish and Wildlife and Bureau of Land Management in Alaska for this information. I've copied Wendy Loya from FWS and Nicole (Miriam) Hayes from BLM. They are trying to facilitate the cataloging of scientific information to establish a level of baseline information necessary to support the development of Environmental Impact Statements and other NEPA (National Environmental Policy Act) requirements.

It would be helpful for Nicole and Wendy to understand what data is available in terms of snow climatology in the 1002 area of the Arctic National Wildlife Refuge -- in terms of time and spatial scale.

I wanted to introduce them to you via this email. I think they will likely need technical assistance in accessing and using the data (unless there are simple products your center can provide), so we may need to draw in a local NOAA partner to help.

Thanks,  
Aimee

,

This email is a service from National Snow & Ice Data Center.

0000011632

**From:** [Pearce, John](#)  
**To:** [Loya, Wendy](#)  
**Cc:** [Hayes, Miriam \(Nicole\)](#)  
**Subject:** Re: Any items to discuss on Friday?  
**Date:** Wednesday, April 4, 2018 12:35:36 PM

---

Thanks for the update Wendy. Our polar bear crew is still in the field and plans to be for about another week. I communicated Wendy's recent email regarding FWS 2018 project ideas regarding polar bears to Grant Hilderbrand and Chris Zimmerman. Further discussions will be possible once the field crew returns from the North Slope. We are still awaiting final budget numbers for our Arctic work and still working out what aircraft might be available for various plans. Most of that planned work is west of the 1002 area however.

I'm around for the rest of the month.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Wed, Apr 4, 2018 at 10:05 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Nicole,

FWS is in the process of identifying how to leverage the funding we have towards priority information needs. I shared the list of studies that our Polar Bear team would like to advance in 2018, and I imagine that USGS has already been part of that discussion. With regards to snow studies, we have received the info from NOAA on MODis from Paul at NSIDC, and while I don't have time to dig deeply into that at this time, we will look forward to a holistic discussion later in 2018 about snow data to inform future tundra travel or other studies of interest to the scientists working in the 1002 area. We had a good conversation yesterday with a suite of experts on vegetation, wetlands and Hydrography mapping and are working towards statement of works to seek to contract out those products across 2018-2019 if possible. So those are my general updates for this week.

FYI, I will be on leave for the meetings on 4/20 and 27. Happy to discuss any issues directly with John prior to that and while you are out of the office next week, Nicole.

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)

On Wed, Apr 4, 2018 at 9:42 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

I do not have any updates for Friday - do either of you?

**Nicole Hayes**

Project Coordinator

Bureau of Land Management

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

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

**From:** [Laker, Mark](#)  
**To:** [Wackowski, Stephen](#)  
**Cc:** [Wright, Brian](#); [Nathan Olson](#); [Chris Noyles](#); [Tracy Fuller](#); [Bathrick, Mark](#); [Wendy Loya](#); [John Trawicki](#); [Brian Lubinski](#); [Bradley Koeckeritz](#)  
**Subject:** Re: 1002 area  
**Date:** Wednesday, April 18, 2018 1:28:28 PM  
**Attachments:** [Vote Button\\_sm.ico](#)  
[2018\\_HighResolutionOrthoimagery\\_ANWR\\_1002.docx](#)

---

Steve,

Attached is a proposal Nate Olson and I submitted a few weeks ago for creating an orthomosaic of the 1002 lands at a resolution of 45cm. This is a cost w/o ground control, so the accuracy would be around 1-2 meters. With 8-10 ground control points and scale bars this can be decreased to <10cm.

Having BLM do the ground control may be most cost effective.

I haven't seen what the actual desired products and specs are, so I can't give a definitive cost estimate. If needed we have access to higher end camera systems such as a Phase One camera, Applanix mount, and IMU within FWS. I also have a very good relationship with Alaska Division of Geological & Geophysical Surveys. They have just acquired a LiDAR unit, so it may be possible to partner with them, if some LiDAR acquisition is needed.

Again, I can be more helpful knowing what the desired products are.

thx,

m

On Wed, Apr 18, 2018 at 9:09 AM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Gents-

Thanks for taking the initiative on this. Any in-house DEM capability should be looks at first, especially if it meets the data requirements for BLM and USFWS as we undertake the congressional mandated 1002 lease sale. As I am sure you all know, this is a top secretarial priority for Alaska.

I'm adding Mark Bathrick at OAS to the chain. Mark- Can you cast a net and see if we have any additional L48 capability to collect structure for motion or LIDAR/LIDAR like elevation data. I wish we had BVLOS UAS capability to do it, but 1002 is so large that manned aircraft is probably our best and only option.

-Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs

Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
[907-271-5485](#)

On Wed, Apr 18, 2018 at 1:01 PM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Mark,

In February, I was contacted by the Arctic LCC regarding elevation data available for the 1002 area. During the conversation, the FWS was making inquiries at acquiring high resolution elevation data for the 1002.

I provided an overview of the 3DEP Broad Agency Announcement and the matching federal funding for the collection of lidar at QL2 level. I noted that sfm is currently not a collection methods approved by the program to gain federal funding assistance. FWS mentioned the possibility of collecting sfm and I believe they were in contact with Matt Nolan out of Fairbanks.

The FWS is also interested in updating the hydrography for the 1002 area and has made some inquiries on possible options on how to complete.

Brian

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
(907) 456-0445  
paul\_leonard@[fws.gov](mailto:fws.gov)

On Tue, Apr 17, 2018 at 3:56 PM, Noyles, Christopher <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)> wrote:

Steve,

I've had a couple discussion with folks about the potential interest in collecting Lidar or Structure for Motion (SfM) data in the 1002 area. If you recall we talked briefly about this in our initial PB meeting with FWS. At the time, I reminded folks of the available IfSAR data which Brian Wright has delivered.

The topic of SfM has come up as an item of interest. Which is why I'm passing this info along. Mark Laker from the USFWS Kenai National Wildlife Refuge has been doing SfM for a while. I recently asked him for if anyone had approached him about the 1002 Area, he said no. I asked if had a ball park figure to fly and process the data. See below for detail. Might be a cheap in-house opportunity worth consideration. It's not Lidar but a whole lot cheaper.

Cheers,



Chris

Christopher C. Noyles  
Civil Applications Committee - Alaska Liaison  
US Department of Interior/Bureau of Land Management  
Alaska State Office, Division of Support Services  
[222 West 7th Ave # 13, Anchorage AK 99513](#)

Phone: (907) 271-5693  
Personal Cell: (907) 854-8896  
FAX: (907) 271-3118  
email: [cnoyles@blm.gov](mailto:cnoyles@blm.gov)



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

From: **Laker, Mark** <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)>  
Date: Thu, Mar 22, 2018 at 1:48 PM  
Subject: 1002 area  
To: "Noyles, Christopher" <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)>  
Cc: Nathan Olson <[nathan\\_olson@fws.gov](mailto:nathan_olson@fws.gov)>

Chris,

Flying the 1002 area would take about 10 hours (not including ferry time) for 50 cm ortho and DSM. That's using the Aero Commander, flying at 10,000 MSL going 220 kt. I'm not sure what the current wet rate of the commander is, probably around \$2800.

Since it would only take a couple days, if someone can contract and pay for the aircraft, I will fly the mission and process the data. If they want high spatial resolution, we should set out some targets if there aren't any natural ones. I'm not sure what they have for CORS up there, we could put a mobile base in Arctic Village.

thx,

m

--

---

Mark Laker - Ecologist  
Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

0000011637

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
[Anchorage, AK 99508](#)  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

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Mark Laker - Ecologist  
Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

**From:** [Leonard, Paul](#)  
**To:** [Laker, Mark](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: 1002 area imagery  
**Date:** Wednesday, April 25, 2018 11:05:23 AM

---

Hi Mark,

Earlier in this chain you mention this:

Nate Olson and I submitted a proposal a few weeks ago for creating an orthomosaic of the 1002 lands at a resolution of 45cm.

However, that proposal was not attached to the email I received. Can you pass that along?

To answer one of your questions:

Wendy is out of town this week and I am taking the lead on facilitating this discussion (From the Arctic LCC's perspective). I am meeting with Refuge staff to get specifics on desired products and resolution and will circle back with you. I will say that we have several prospective pieces that we are trying to align to achieve maximum efficiency.

Cheers,  
Paul

On Wed, Apr 18, 2018 at 11:48 AM, Laker, Mark <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)> wrote:

Wendy,

Who is requesting this data? Who is the PI? I see FWS, and Arctic LCC mentioned, but no individuals? What is the desired product and resolution?

Even with matching funding from the 3DEP program, we can most likely do it cheaper in house and get additional products.

thx,

m

On Wed, Apr 18, 2018 at 11:37 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Mark,

Thanks for keeping us in the loop, please include Paul Leonard in all future correspondence. Towards this conversation, we have a regional plan to pursue updated vegetation, NWI and NHD maps. We mentioned the need for snow free highly accurate SfM. Let's do our best to make sure we coordinate wherever possible for best products and cost savings.

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 Apr 18, 2018, at 12:27, Laker, Mark <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)> wrote:

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Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
[907-271-5485](#)

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Brian

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
[\(907\) 456-0445](#)  
[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)

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Cheers,

Chris

Christopher C. Noyles  
Civil Applications Committee - Alaska Liaison  
US Department of Interior/Bureau of Land Management  
Alaska State Office, Division of Support Services  
[222 West 7th Ave # 13, Anchorage AK 99513](#)  
Phone: (907) 271-5693  
Personal Cell: (907) 854-8896  
FAX: (907) 271-3118  
email: [cnoyles@blm.gov](mailto:cnoyles@blm.gov)

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

From: **Laker, Mark** <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)>  
Date: Thu, Mar 22, 2018 at 1:48 PM  
Subject: 1002 area  
To: "Noyles, Christopher" <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)>  
Cc: Nathan Olson <[nathan\\_olson@fws.gov](mailto:nathan_olson@fws.gov)>

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thx,

m

--

---

Mark Laker - Ecologist

Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
[Anchorage, AK 99508](#)  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

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--

Mark Laker - Ecologist  
Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

<2018\_HighResolutionOrthoimagery\_ANWR\_1002.docx>

--

Mark Laker - Ecologist  
Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

--

Paul Leonard, PhD  
Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445



**From:** [Leonard, Paul](#)  
**To:** [Wright, Brian](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: 3DEP for North Slope Alaska  
**Date:** Wednesday, April 25, 2018 11:09:51 AM  
**Attachments:** [image.png](#)

---

Thanks Brian,

I received your voice message. We have reached out to Mark and others about the potential to collect high-res sfm. We are narrowing down requested specs and will circle back with you asap.

Cheers,  
Paul

On Wed, Apr 18, 2018 at 8:41 AM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Paul,

I have been meaning suggest FWS consider contacting Mark Laker from the USFWS Kenai National Wildlife Refuge if sfm is a consideration for 1002. Mark has done extensive sfm collection with fixed wing and UAS.

Brian

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

**From:** **Leonard, Paul** <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>  
**Date:** Wed, Feb 21, 2018 at 5:02 PM  
**Subject:** Re: 3DEP for North Slope Alaska  
**To:** "Wright, Brian" <[bwright@usgs.gov](mailto:bwright@usgs.gov)>  
**Cc:** Julie Michaelson <[julie\\_michaelson@fws.gov](mailto:julie_michaelson@fws.gov)>

Thanks Brian,

Sounds good.

I should mention that the Arctic Coordinator (Wendy Loya) may have already spoken with John about some of this but it would be great to have him on (he is currently serving as the POC for USGS in our efforts related to 1002)

Cheers,  
Paul

On Wed, Feb 21, 2018 at 3:15 PM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Paul,

How about **Friday, February 23rd at 1:00 pm AKST?**

I would also like to invite the lead biologist from the USGS, Alaska Science Center who also has an interest in lidar acquisition for ANWR/1002.

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center

We can use my audio bridge.

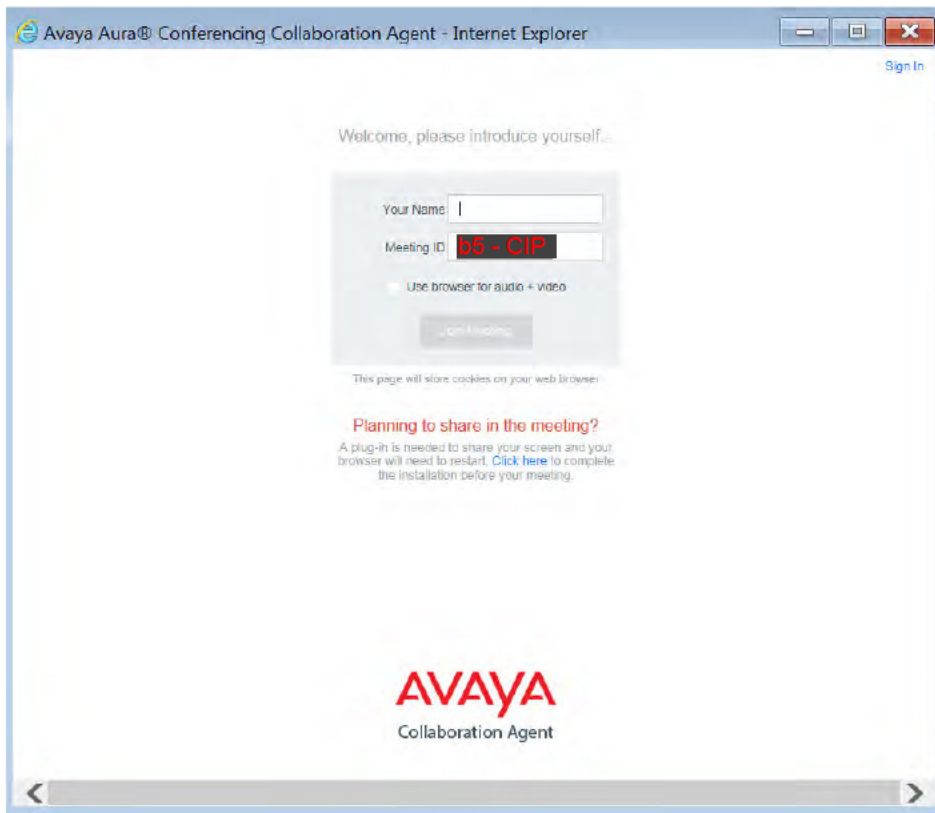
Toll free: [REDACTED]  
Security Code: [REDACTED]

Avaya Video link:

[REDACTED]

I will send some graphics ahead in the event the Avaya doesn't work.

This is the page that you should see using the link above. You may need to install a Run if using Avaya the first time.



Brian

On Wed, Feb 21, 2018 at 2:21 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:  
Hi Brian and Julie,

I'm located in Fairbanks so we may need a phone call. Would it be possible to schedule a brief conversation tomorrow (anytime except 11-12) or Friday (1-2) or next Monday (open before 1:30pm)?

Cheers,  
Paul

On Wed, Feb 21, 2018 at 11:36 AM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:  
Paul,

It would be beneficial to meet with you and illustrate the current state and future plans for elevation collection for ANWR/1002.

I have included Julie Michaelson on this invitation. Julie participates on the Alaska Mapping Executive Committee (AMEC) Technical Subcommittee who are partnering to complete statewide elevation coverage.

I am available to stop by the FWS offices and discuss this Friday or next week Monday, Thursday, or Friday.

Brian

On Wed, Feb 21, 2018 at 10:49 AM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hi Becci,

You were listed on the latest USGS fact sheet for AK (circa 2013) so I'm not sure if you're still the geospatial liason but perhaps if not you could point me in the correct direction?

We are trying to assess plans to aquire lidar (or ifsar) around the arctic national wildlife refuge's 1002 area this year and thought it might be good to get an update from USGS. Is there any information that you might be able to provide in regards to existing plans or proposed plans in 2018?

The 1002 Area can be viewed [here](#):

Thank you for the consideration.

Cheers,  
Paul

--

Paul Leonard, PhD

Science Coordinator  
[Arctic LCC](#)  
[101 12th Ave. Room 216](#)  
[Fairbanks, AK 99701](#)  
[\(907\) 456-0445](#)

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

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--

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
[101 12th Ave. Room 216](#)  
[Fairbanks, AK 99701](#)  
[\(907\) 456-0445](#)

--

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
[4210 University Drive](#)  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

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Brian Wright  
National Map Liaison - Alaska  
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--

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--

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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](mailto:Wendy.Loya)  
**To:** [Paul Leonard](mailto:Paul.Leonard)  
**Subject:** FW: USGS-FWS North Slope waterbird publication submitted  
**Date:** Tuesday, May 1, 2018 2:31:39 PM

---

**From:** Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Sent:** Tuesday, May 1, 2018 12:25 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Subject:** USGS-FWS North Slope waterbird publication submitted

Wendy and Nicole:

Just wanted to let you know that our office submitted a paper to Ecosphere last week regarding a joint U.S. Geological Survey (USGS) and U.S. Fish and Wildlife (USFWS) analysis on the distribution, abundance, and trends of waterbirds on the North Slope of Alaska over a 25-year period (1992–2016). Publication is expected by mid-summer. We also shared this information with our leadership and with DOI.

Key Points:

- The USFWS conducts an annual aerial survey of waterbirds across the North Slope of Alaska to determine population trends and abundance of species. The focus of these surveys is the National Petroleum Reserve – Alaska (NPR-A) where bird densities are higher than elsewhere on the North Slope. Due to the low density of waterbirds on the coastal plain of the Arctic National Wildlife Refuge (ANWR), only a single transect line is flown each year across the coastal portion of ANWR.
- The USGS and the USFWS recently completed a major analysis of these data that maps distributions, spatially-explicit population trends, and identifies important areas for 20 waterbird species counted during the survey
- Waterbird densities were greatest within the NPR–A for all species examined. Conversely, the surveyed portion of the 1002 Area was relatively important for five species, while seven species were less abundant or not observed there. Population growth rates across the 25-year period varied by species: ten increased, nine were stable, and one decreased (red-throated loon).

Discussion:

The new paper produces a number of distributional maps for portions of the North Slope including average density by species and species group, population trends by species, areas of recent population expansion, and important bird areas by species and species groups based on greater than average densities across the 25-year data set. Areas most important to species included coastal areas near Teshekpuk Lake, the Colville River Delta, and Admiralty Bay. The NPR–A was an important area for all species examined. Conversely, the coastal plain of ANWR was relatively important for five species and unimportant for seven species, three of which were not observed there; however, survey effort was low in this area. Population growth rates over the 25-year survey period also varied by species: 10 increased, 1 decreased (red-throated loon), and 9 were stable. However, even species with no overall population trend had areas of increasing or decreasing abundance, suggesting localized conditions affected waterbird populations on the North Slope.

Citation:

Amundson, C.L., P.L. Flint, R.A. Stehn, R.M. Platte, H.M. Wilson, W.W. Larned, and J.B. Fischer. Spatio-temporal Population Change of Arctic-breeding Waterbirds on the North Slope of Alaska. *Ecosphere*, In Review.

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>



**From:** [Wendy Loya](#)  
**To:** [john\\_swords@fws.gov](mailto:john_swords@fws.gov); [John Trawicki](#)  
**Subject:** FW: Short deadline: need info on estimate to do NDHD for 1002 area of Arctic NWR  
**Date:** Wednesday, May 9, 2018 5:39:51 PM  
**Attachments:** [AK Hydro Status.docx](#)

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FYI...

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)FYI..

**From:** Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)>  
**Sent:** Friday, February 23, 2018 12:45 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Julie Michaelson <[julie\\_michaelson@fws.gov](mailto:julie_michaelson@fws.gov)>; Kacy Krieger <[kekrieger2@alaska.edu](mailto:kekrieger2@alaska.edu)>  
**Subject:** Fwd: Short deadline: need info on estimate to do NDHD for 1002 area of Arctic NWR

Wendy,

Attached is an overview of the status and cost to complete hydro updates for AK.

Below is a cost estimate for the 10-02 area.

Brian

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

If it's just the 10-02 area, we could estimate the cost like this:

**1:24,000 NHD updates: \$47,200** ((area: 2400 sq miles) x (cost estimated to cost \$13 per sq mi - this is a conservative estimate, it might be higher or lower, I'd need to dig into the area more to understand what challenges might arise)) \* 51.2% (example UAA Overhead) = \$47200 price.

+ **Conflation and NHD Update: \$5000** (\$5000 per conflate subbasin/area - this area crosses 3 HU8s but are only small portions of each. Total area is approximately equivalent to one HU8)

+ **WBD Updates: \$15,000** (2400 sq miles/663,300 sq miles \* \$4,000,000(statewide estimate))

+ **NHDPlus HR: \$19,000** (2400 sq miles/663,300 sq miles \* \$5,000,000(statewide estimate))

**Total Estimated Cost: \$86,000**

Thanks,  
-Kacy

0000011653

Kacy Krieger  
Alaska Hydrography Coordinator  
Alaska Center for Conservation Science  
University of Alaska Anchorage  
[3211 Providence Drive](#)  
[Anchorage, Alaska 99508](#)  
W: [\(907\) 786-7749](#)  
C: [\(907\) 414-5175](#)

On Fri, Feb 23, 2018 at 8:17 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Kasey and Brian,

Julie Michaelson at FWS gave me your contact info as likely being able to help me come up with a general cost estimate for the following task, with the first part not italicized likely being the request I have of you.

Develop NHDPlus High Resolution hydrography framework, which extends the hydrologic network seamlessly across the terrain by sub-watershed units and stream channels for 1D and 2D channels. Directional flow will be mapped throughout the catchment areas. Open water bodies to include lakes and ponds will be extracted using hydro- enforced elevation data and recently acquired ortho-imagery. *Observational data on the drainage network, such as water quality samples, stream gauge measurements, or fish distribution, would be linked to the framework, integrating data and facilitating analyses required during all phases of exploration and development.* (Cost to support existing NHD efforts and training for staff: \$\$\$, potential leads: USGS, USFWS, BLM, other Cooperating Agencies)

Could either of you call or email me to discuss or provide an estimate? I could really use this info by 2pm today. Welcome any feedback on the project description as well.

Thank you!  
Wendy

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

Brian Wright  
National Map Liaison - Alaska  
US Geological Survey

0000011654

4210 University Drive  
Grace Hall, Room 228  
Anchorage, AK 99508  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

[The National Map](#) - Your Source for Topographic



**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Cc:** [Nicole Hayes](#)  
**Subject:** FW: from our weekly report re: seismic work in ANWR  
**Date:** Thursday, May 10, 2018 1:50:35 PM

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Hi John,

Can you help me understand what the product of vintage 2D reanalysis might look like, since it won't be an updated resource assessment? Will it be some sort of map of polygons of possible plays/reservoirs? I am assuming it will be incorporated into the EIS, but won't have an updated economically recoverable estimate? Curious about how this info will be presented to help us evaluate possible stipulations/impacts.

Thanks,  
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:** Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Sent:** Thursday, May 10, 2018 11:23 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Fwd: from our weekly report re: seismic work in ANWR

FYI

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

**From:** **Devaris, Aimee** <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** Thu, May 10, 2018 at 9:53 AM  
**Subject:** from our weekly report re: seismic work in ANWR  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>

Hi Greg and Karen,

Following up from yesterday -- this is what USGS reported up to the Department regarding the status of the seismic work and O&G assessment.

Secretarial Order 3352 milestones: The reprocessing of vintage 2-D seismic data acquired in the mid-1980s over the Section 1002 area of the Arctic National Wildlife Refuge (ANWR) is progressing, with expected delivery in the summer of 2018. A resource assessment of the Section 1002 area will be deferred pending the acquisition of 3-D seismic data by industry. In the interim, the USGS will shift its efforts on resource assessments on Alaska's North Slope to accelerate the evaluation of the Central North Slope (CNS) lands situated between ANWR and

the National Petroleum Reserve-Alaska (NPR-A). The expected completion date of the CNS assessment is December 2019; an assessment covering NPR-A was released in December 2017. Field work to support the broader North Slope effort is scheduled for this summer, with logistical planning now underway. (5/2/2018)

--

**Aimee M. Devaris**

Regional Director

U.S. Geological Survey

[4210 University Drive](#)

[Anchorage, Alaska](#)

907-786-7055

**From:** [Wendy Loya](#)  
**To:** [Drew Crane](#); [John Trawicki](#); [Steve Berendzen](#); [Joanna Fox](#); [Stephanie Brady](#)  
**Cc:** [Greg Siekaniec](#); [Karen Clark](#); [Paul Leonard](#)  
**Subject:** FW: USGS news item on new 1002 polar bear den analysis  
**Date:** Friday, May 11, 2018 11:14:01 AM

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Hi 1002 POCs,

Can you forward this new report announcement to interested parties in your divisions?

Thanks,  
Wendy

**From:** Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Sent:** Friday, May 11, 2018 9:06 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Subject:** USGS news item

Hi Wendy and Nicole,

The following highlight was included in yesterday's USGS weekly report to DOI. I'm passing along for your information. The USGS Open File Report should be publicly available next week and the data release is available now. Both are referenced below.

[NEW] In May or June a new USGS Open File Report entitled “A comparison of photograph-interpreted and IfSAR-derived maps of polar bear den habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska” will be available online from the USGS Publications Warehouse. The report describes a qualitative analysis to compare maps of possible polar bear den habitats on the Arctic Coastal Plain of the Refuge. Historically, most polar bears (*Ursus maritimus*) from the Southern Beaufort Sea subpopulation constructed maternity dens on the sea ice. However, over the last three decades, there has been a shift in the distribution of dens, with most now occurring on land. The qualitative comparison of IfSAR- and photograph-derived maps indicated that differences exist in the ability of the two methods to identify the same maternal denning habitat in the Refuge. Previous work and this report suggests that IfSAR data have limitations that may be surmounted with DTMs whose pixel size is reduced to that of the average footprint of a typical polar bear maternal den. U.S. Fish and Wildlife Service and Bureau of Land Management may use the report and data to inform permitting and planning. This work was requested by the DOI Senior Advisor for Alaskan Affairs and a briefing paper was sent on May 2, 2018. (5/8/2018)

Durner, G.M. and Atwood, T.C. 2018. A comparison of photo-interpreted and IfSAR-derived maps of polar bear den habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska: U.S Geological Survey, Open-File Report 2018-5254

Durner, G. M. and Atwood, T. C., 2018, Data Used to Compare Photo-Interpreted and IfSAR-Derived Maps of Polar Bear Den Habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska, 2006-2016: U.S. Geological Survey data release, <https://doi.org/10.5066/F7DJ5DXT>.

John M. Pearce, Ph.D.  
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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:** [Pearce, John](#)  
**To:** [Hayes, Miriam \(Nicole\)](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: USGS news item  
**Date:** Friday, May 11, 2018 6:42:29 PM

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Hi Nicole,

Meeting on an as needed basis is fine with me. I'll continue to send information and news via email as it becomes available.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
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Tel. 907.786.7094  
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<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Fri, May 11, 2018 at 11:21 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

Thank you for this information, John.

Wendy and I chatted briefly this morning about scheduling these meetings as needed since we have not had topics to discuss and they have been cancelled for the past month. If you think it would be helpful to have a regular check-in still we could look at monthly? Let me know what you think.

Thanks!

Nicole

**Nicole Hayes**

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

On Fri, May 11, 2018 at 9:05 AM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Hi Wendy and Nicole,

The following highlight was included in yesterday's USGS weekly report to DOI. I'm passing along for your information. The USGS Open File Report should be publicly available next week and the data release is available now. Both are referenced below.

[NEW] In May or June a new USGS Open File Report entitled "A comparison of photograph-interpreted and IfSAR-derived maps of polar bear den habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska" will be available online from the USGS Publications Warehouse. The report describes a qualitative analysis to compare



maps of possible polar bear den habitats on the Arctic Coastal Plain of the Refuge. Historically, most polar bears (*Ursus maritimus*) from the Southern Beaufort Sea subpopulation constructed maternity dens on the sea ice. However, over the last three decades, there has been a shift in the distribution of dens, with most now occurring on land. The qualitative comparison of IfSAR- and photograph-derived maps indicated that differences exist in the ability of the two methods to identify the same maternal denning habitat in the Refuge. Previous work and this report suggests that IfSAR data have limitations that may be surmounted with DTMs whose pixel size is reduced to that of the average footprint of a typical polar bear maternal den. U.S. Fish and Wildlife Service and Bureau of Land Management may use the report and data to inform permitting and planning. This work was requested by the DOI Senior Advisor for Alaskan Affairs and a briefing paper was sent on May 2, 2018. (5/8/2018)

Durner, G.M. and Atwood, T.C. 2018. A comparison of photo-interpreted and IfSAR-derived maps of polar bear den habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska: U.S Geological Survey, Open-File Report 2018-5254

Durner, G. M. and Atwood, T. C., 2018, Data Used to Compare Photo-Interpreted and IfSAR-Derived Maps of Polar Bear Den Habitat for the 1002 Area of the Arctic National Wildlife Refuge, Alaska, 2006-2016: U.S. Geological Survey data release, <https://doi.org/10.5066/F7DJ5DXT>.

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Supervisory Wildlife Biologist  
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<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#)  
**Cc:** [John Pearce](#)  
**Subject:** Re: Briefing on North Slope bird distributions  
**Date:** Wednesday, June 13, 2018 12:28:48 AM

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Yes, that works for me. Please add Casey Burns with BLM to the invite. Debbie Nigro is not working on it as she is tied up with many other NPRA projects.

Thanks,  
Nicole

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

On Tue, Jun 12, 2018 at 6:29 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

John,

That date would be good for FWS. We would still have time to incorporate results into our alternatives discussion internally and with BLM on July 9<sup>th</sup>. We can host at FWS if that sounds good, and I would set it up as a webinar for Paul Leonard to join remotely and perhaps we should invite Debbie Nigro and Tim Vosburgh from BLM Arctic FO as the IDT members for Migratory birds?

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:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]

**Sent:** Tuesday, June 12, 2018 1:08 PM

**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>

**Subject:** Briefing on North Slope bird distributions

Hi Wendy and Nicole,

Regarding our new analysis with USFWS of bird abundance and distribution information for the entire North Slope region, how about an in-person or webinar with me and Courtney Amundson to discuss her findings? The report is huge and difficult to get through our approval process at this point (it has been submitted to a journal, but we haven't heard back yet).

Would a meeting on Thursday, June 28th work for you? Maybe 10 am? We can either do a webinar or meet you both in person. Courtney and I can talk through all the analyses and maps that were generated from 25 years of USFWS Arctic Coastal Plain waterbird survey.

Let me know.

Thanks,

John

John M. Pearce, Ph.D.

Supervisory Wildlife Biologist

Manager, Wetland and Terrestrial Ecosystems Office

U.S.Geological Survey, Alaska Science Center

[4210 University Drive](#)

[Anchorage, Alaska 99508](#)

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Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)

<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

**From:** [Wendy Loya](#)  
**To:** [Pearce, John](#)  
**Subject:** Re: Request for full proposal: calving/post-calving habitat  
**Date:** Wednesday, July 11, 2018 12:44:21 PM

---

Is there a standard format for the past? Otherwise, I would suggest similar format as pre-proposal but fleshed out. What do you think?

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 11, 2018, at 10:37, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Thanks for these Wendy. Is there a specific full proposal format that you'd like us to use?

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
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Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

On Tue, Jul 10, 2018 at 9:57 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

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 16<sup>th</sup> so that our 1002 team can review prior to submission to USGS by August 31<sup>st</sup>.

**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:** [Koch, Joshua](#)  
**To:** [Rose, Joshua](#)  
**Cc:** [Wendy Loya](#); [Randy Brown](#)  
**Subject:** Re: Urgent: Need info on how to ID spring groundwater flowpaths  
**Date:** Thursday, July 12, 2018 11:15:41 AM  
**Attachments:** [Minsley2012\\_Airborne electromagnetic imaging of discontinuous permafrost.pdf](#)

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Hi All,

Here's an example of the geophysical methods that Josh R. mentioned from Alaska - frozen ground presents another unique challenge to interpreting geophysical results. Large-scale surveys would require flight time with a fixed wing aircraft or helicopter, and ideally installation of boreholes to ground truth the airborne measurements. Smaller-scale surveys can be done on foot, skis, snowmachine, etc, but couldn't "see" as deep in to the ground. In all cases, ground truthing with cores and or boreholes is important.

Thanks,  
Josh K.

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
4210 University Dr. Anchorage, AK 99508  
office: 907-786-7119, cell: 303-817-5595  
[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)  
[Google Scholar Profile](#)  
[Project Website: Arctic - Boreal Catchment Studies](#)

\*\*\*\*\*

On Thu, Jul 12, 2018 at 8:48 AM, Rose, Joshua <[joshua\\_rose@fws.gov](mailto:joshua_rose@fws.gov)> wrote:

Wendy,

Recently geophysics has been used to identify preferential flow paths. The idea of this stip is to limit the probability of contamination which does not require fine scale mapping but rather identification of the strata and preferential flow paths to prevent contamination or dewatering of spring systems. Attached are 3 papers that utilized geophysical surveys to identify preferential flow paths using geophysical analysis. Methods for mapping include seismic, electromagnetic resistivity surveys, and several others. The Robert thesis provides a larger list. The Zielke-Olivier paper used geophysics and hydrology data to identify contaminant flow paths. If we need more info I can dig it up.

Thanks,  
Josh



On Wed, Jul 11, 2018 at 5:03 PM, Koch, Joshua <[jkoch@usgs.gov](mailto:jkoch@usgs.gov)> wrote:

Hi Wendy,

Mapping the locations where the groundwater flowpaths reach the surface is possible in many situations. However, mapping the groundwater flowpaths themselves is nearly impossible, and one of the primary challenges of groundwater hydrology.

Mapping of the locations where the springs discharge to the surface (either in the stream bottom or on land) may be accomplished with remote sensing of either aufeis fields, and/or through the thermal signature of the upwelling spring water. (Flying over the river with a thermal camera may detect the temperature difference between the river and upwelling groundwater). These remote sensing techniques will be useful in locations where the majority of the inflow is occurring in at discrete location. It may be less effective where spring discharge or groundwater upwelling is more diffuse (which could account for up to two thirds of the upwelling based on the limited literature). In these situations, water chemistry sampling may be used to detect that an inflow exists, but determining the location of the diffuse upwelling may require extensive geochemical sampling of the river water along the river.

Please let me know if this is clear. I will be around much of the day on Thursday if you would like to chat more about this.

Also, thank you for your email regarding the proposal. I will talk with Josh R. and we will set up a meeting with the relevant parties to move forward on the full proposal.

Thanks,  
~Josh Koch

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
[4210 University Dr. Anchorage, AK 99508](https://www.usgs.gov/locations/alaska/4210-university-dr-anchorage-ak-99508)  
office: 907-786-7119, cell: 303-817-5595  
[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)  
[Google Scholar Profile](#)  
[Project Website: Arctic - Boreal Catchment Studies](#)

\*\*\*\*\*

On Wed, Jul 11, 2018 at 10:01 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Josh, Joshua and Randy,

The FWS has presented a recommendation that includes the following language:

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.

How, in very general 8<sup>th</sup> grade terms, might this be accomplished? Need a response ASAP (today or tomorrow at latest)

Thank you,

Wendy

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## Airborne electromagnetic imaging of discontinuous permafrost

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[1] The evolution of permafrost in cold regions is inextricably connected to hydrogeologic processes, climate, and ecosystems. Permafrost thawing has been linked to changes in wetland and lake areas, alteration of the groundwater contribution to streamflow, carbon release, and increased fire frequency. But detailed knowledge about the dynamic state of permafrost in relation to surface and groundwater systems remains an enigma. Here, we present the results of a pioneering ~1,800 line-kilometer airborne electromagnetic survey that shows sediments deposited over the past ~4 million years and the configuration of permafrost to depths of ~100 meters in the Yukon Flats area near Fort Yukon, Alaska. The Yukon Flats is near the boundary between continuous permafrost to the north and discontinuous permafrost to the south, making it an important location for examining permafrost dynamics. Our results not only provide a detailed snapshot of the present-day configuration of permafrost, but they also expose previously unseen details about potential surface – groundwater connections and the thermal legacy of surface water features that has been recorded in the permafrost over the past ~1,000 years. This work will be a critical baseline for future permafrost studies aimed at exploring the connections between hydrogeologic, climatic, and ecological processes, and has significant implications for the stewardship of Arctic environments. **Citation:** Minsley, B. J., et al. (2012), Airborne electromagnetic imaging of discontinuous permafrost, *Geophys. Res. Lett.*, 39, L02503, doi:10.1029/2011GL050079.

### 1. Introduction

[2] Permafrost—described here as ground that is perennially frozen—is present throughout much of the Arctic and in alpine environments, and underlies approximately 24% of

the land area in North America [Zhang *et al.*, 2008]. The distribution of permafrost in Earth's cryosphere impacts hydrogeologic processes [Walvoord and Striegl, 2007; Yoshikawa and Hinzman, 2003], climate feedbacks [Froese *et al.*, 2008; Schuur *et al.*, 2009], and Arctic ecology [Avis *et al.*, 2011; Jorgenson *et al.*, 2001]. Increased thawing due to warmer temperatures can enhance surface – groundwater interaction through taliks (unfrozen zones within permafrost regions) and alter the contribution of groundwater to streamflow [Bense *et al.*, 2009; Walvoord and Striegl, 2007]. In addition, many permafrost soils constitute a substantial carbon pool [Zimov *et al.*, 2006] that has the potential to act as a positive climate change feedback by contributing to atmospheric carbon when thawed [Koven *et al.*, 2011; Schuur *et al.*, 2009]. Changes in wetland areas [Avis *et al.*, 2011] and fire frequency or intensity that result from thawed permafrost also have important ecological and climate implications [Mack *et al.*, 2011; O'Donnell *et al.*, 2011].

[3] Knowledge about the configuration of permafrost at depth is crucial to our understanding of these natural phenomena, and provides guidance for management decisions about resources and infrastructure [Nelson *et al.*, 2001, 2002]. Nevertheless, specific details about the arrangement of permafrost at depth are lacking because of the difficulty in probing the subsurface over areas greater than a few square kilometers. Typically, inferences about permafrost distributions are largely based on conceptual models derived from surface observations [Duguay *et al.*, 2005; Ferrians, 1965], sparse borehole measurements [Osterkamp, 2007; Romanovsky and Osterkamp, 2000], and limited geophysical data [Froese *et al.*, 2005; Yoshikawa and Hinzman, 2003].

[4] Airborne electromagnetic (AEM) data presented here play a unique role in characterizing permafrost. Their ability to image physical properties at depth cannot be achieved with satellite systems, and their spatial coverage cannot be matched by ground-based measurements or borehole data. Advances in AEM instrumentation and data processing have greatly improved our ability to image the subsurface, and these data are being increasingly utilized for large-scale groundwater studies [Siemon *et al.*, 2009]. We show that remotely sensed AEM data are able to identify the subsurface configuration of permafrost, and also can be used to infer the thermal legacy of surface and groundwater systems in permafrost regions.

### 2. Study Area and Methods

[5] Recently acquired frequency-domain AEM data (see Text S1 of the auxiliary material) [Ball *et al.*, 2011] provide unprecedented three-dimensional views of lithology, permafrost

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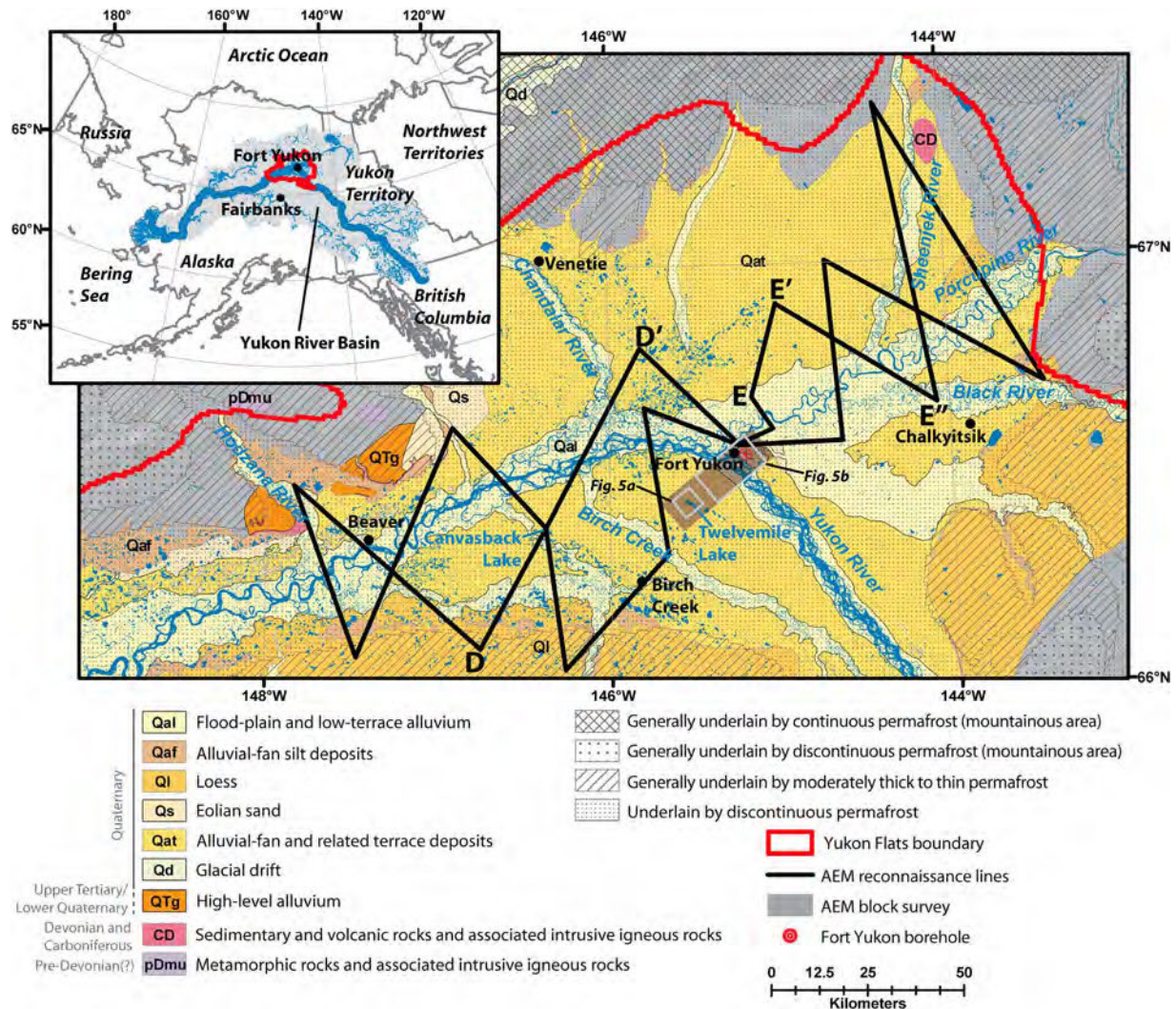
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**Figure 1.** Yukon River Basin location (inset) and geophysical study area with surface water features, surface geology [Williams, 1962], and background shading indicating gross permafrost characteristics [Ferrians, 1965]. D-D' and E-E'-E'' indicate reconnaissance transects that are discussed in the auxiliary material.

distributions, and potential surface - groundwater connections via taliks beneath lakes and rivers in the Yukon Flats area near Fort Yukon, Alaska (Figure 1).<sup>1</sup> The Yukon Flats (see Text S1 of the auxiliary material for additional background) is a lowland area within the Yukon River Basin, where the Yukon River reaches its northernmost point ~13 km north of the Arctic Circle. The Yukon Flats is of particular importance because it is an area of discontinuous permafrost [Jorgenson *et al.*, 2008] that is generally more unstable and sensitive to a warming climate than continuous permafrost. Because discontinuous permafrost is relatively warm [Osterkamp and Romanovsky, 1999], contact with and heat transfer from adjacent unfrozen ground or water bodies can result in significant thawing [Jorgenson *et al.*, 2010; Osterkamp, 2007].

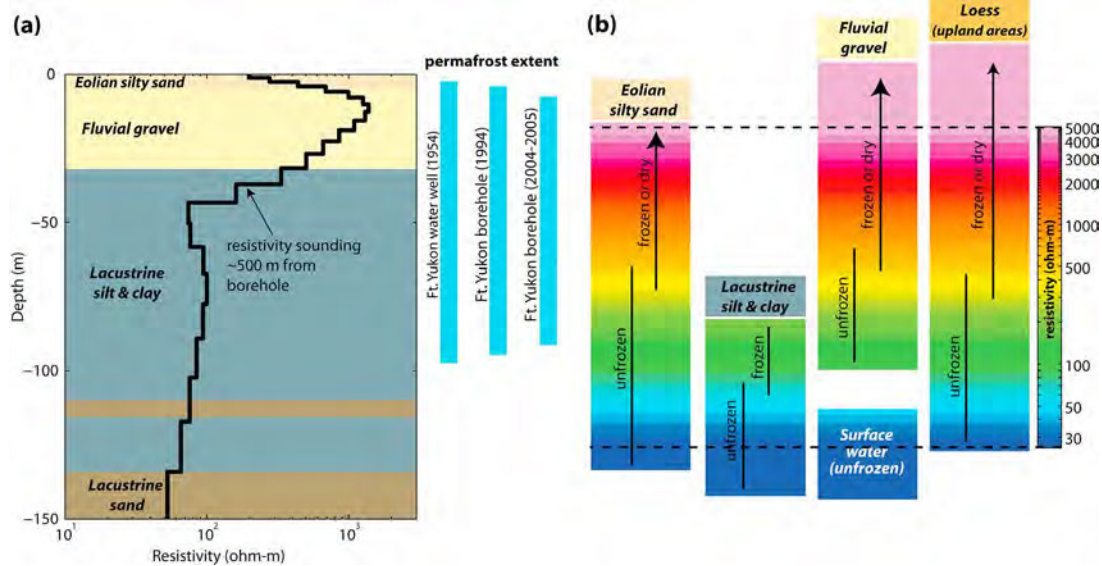
[6] AEM data were acquired during one week in June 2010 using the Fugro RESOLVE system, which operates at six frequencies between 0.4 and 129 kHz and is flown at a

average speed of 30 m/s and ground clearance of 30 m (see Text S1 of the auxiliary material). The survey consists of a block of closely spaced lines that cover approximately 300 km<sup>2</sup> and a number of widely spaced 'reconnaissance' lines, totaling nearly 900 km in length, that sample a broader range of geologic settings within the Yukon Flats (Figure 1). High-resolution mapping in three dimensions is achieved within the block, and visualization of different hydro-geologic settings and permafrost distributions along the widely spaced lines provides new understanding of the Yukon Flats at both small and large scales. Inversion of ~500,000 AEM soundings [Ball *et al.*, 2011] yields densely sampled models of electrical resistivity along the survey flight lines to depths of ~100 m.

### 3. Results

[7] We incorporate limited drill hole data near Fort Yukon, including a 1954 water well [Williams, 1962] and a nearby borehole that was drilled in 1994 and re-drilled in 2004 [Clark *et al.*, 2009] (Figure 1) to develop a relation

<sup>1</sup>Auxiliary materials are available in the HTML. doi:10.1029/2011GL050079.



**Figure 2.** (a) Comparison of an inverted AEM resistivity sounding with nearby borehole lithology and observations of permafrost extent in the borehole and an older water well. (b) Interpretive schematic for the AEM survey, which indicates the typical range of resistivity values for various materials under frozen and thawed conditions [Hoekstra et al., 1975; Palacky, 1987].

that connects inverted electrical resistivity values to lithology and permafrost. AEM-derived resistivity values of 100–200 ohm-m are observed in the uppermost unfrozen eolian silt and sand at the borehole location (Figure 2a). Resistivity rapidly increases to greater than 1,000 ohm-m in the upper fluvial gravel unit, which was entirely frozen in 2005 except for the top 2–3 m. A transition to lower resistivity values near or less than 100 ohm-m is observed at depth where frozen lacustrine silt and clay are present. Decreased resistivity in the unfrozen upper 5–10 m and the trend toward lower resistivity values below the depth of permafrost at ~90 m within the lacustrine silt are consistent with the fact that frozen materials have higher resistivity than their unfrozen counterparts [Hoekstra et al., 1975].

[8] Limited well and borehole data, additional knowledge about the depositional environment (see Text S1 of the auxiliary material), and information about typical resistivity values of various earth materials [Hoekstra et al., 1975; Palacky, 1987] provide an interpretive framework for the AEM-derived models (Figure 2b). Each material can exhibit a relatively wide range of resistivity values due to variability in porosity, saturation, mixing of different lithofacies, and thermal state. The range of resistivity values for surface waters, which is primarily a function of salinity, is empirically established using AEM data acquired over known water bodies and is also consistent with lake-water conductivity measurements. Typical AEM-derived water resistivity values are on the order of tens of ohm-m, although several locations as low as 2–3 ohm-m were observed. Water conductivity measured in Twelvemile Lake (Figure 1) was 550  $\mu\text{S}/\text{cm}$  (18 ohm-m), whereas the AEM-derived resistivity in the upper 4 m of the lake is 10–20 ohm-m. The highest water conductivity measured in the area was 3,995  $\mu\text{S}/\text{cm}$  (2.5 ohm-m), which is consistent with the lowest values in the AEM survey. Loess can exhibit a wide range of resistivity values, but is only observed over limited portions of the reconnaissance lines at higher elevations in the southern part of the survey (Figure 1), and is easily identified.

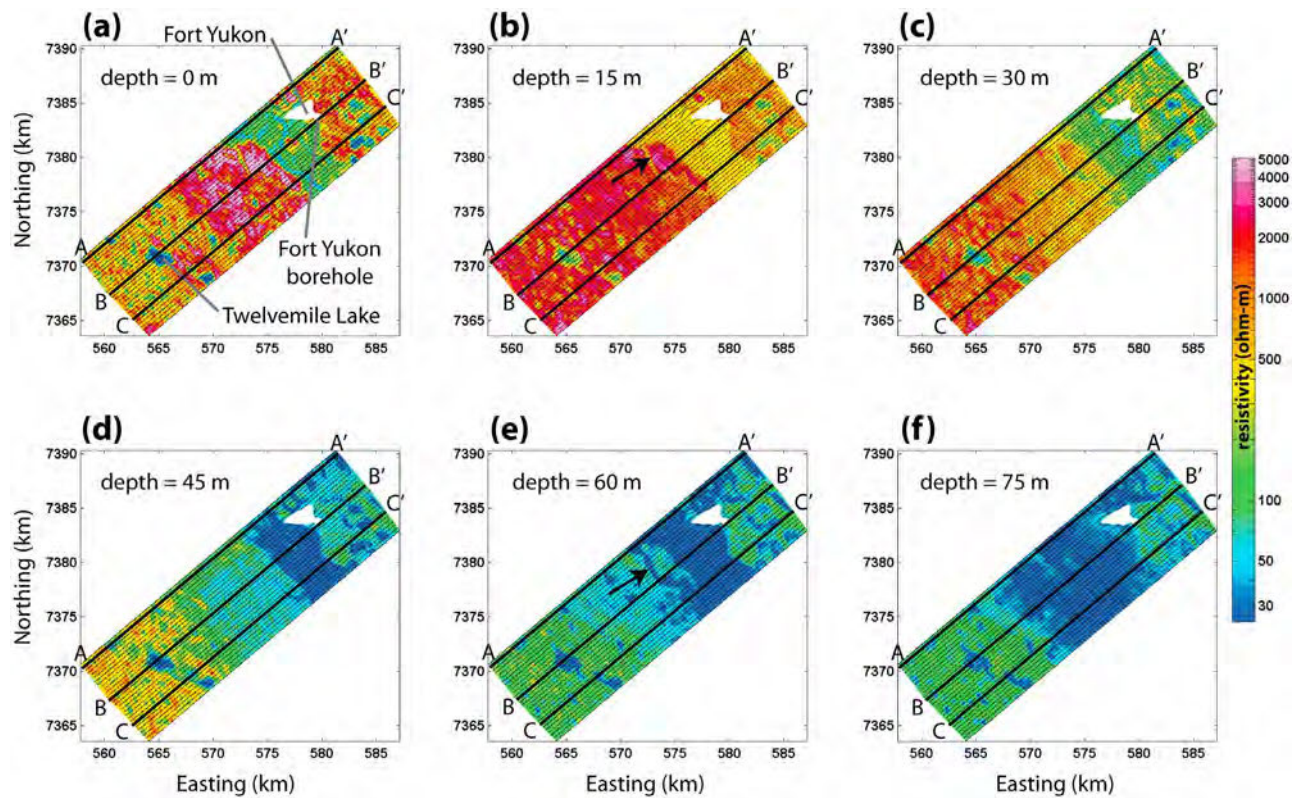
[9] Notable features in the AEM-derived resistivity models that are presented as horizontal depth-slice maps (Figure 3) and vertical cross-sections (Figure 4) include: (1) surface water bodies consistently appear as regions of low-resistivity (blue) in the near-surface, several of which extend throughout the entire depth-extent of the model; (2) very high resistivity values greater than 1,000 ohm-m (orange-pink) are observed throughout the upper 15–30 m in the northeast and up to 45 m in the southwest portions of the survey area, and overlie decreased resistivity (blue-green) regions at depth; and (3) the Yukon River is characterized by a broad, relatively low-resistivity zone that widens to the southwest with depth. The subsurface resistivity images, which are interpreted below, provide reliable information from the near-surface to depths of ~100 m throughout the survey area.

## 4. Discussion

### 4.1. Lithologic and Permafrost Inferences

[10] Based on the known depositional history of the Yukon Flats and the available stratigraphic data near Fort Yukon (Figure 2a), it appears that lithology has a significant impact on resistivity. The resistive upper gravel deposit observed in the borehole appears to extend across the entire survey block, thickening to the southwest (Figure 4). A wide range of elevated resistivity values is observed within the gravels, where details in the near-surface have been created to varying extents by more recent fluvial and eolian activity. The brown-dashed lines in Figure 4 indicate our interpreted base of the gravel deposit, which is underlain by areas of intermediate (~100 ohm-m) to low (<50 ohm-m) resistivity silts and clays. This geologic model is consistent with ground-based electrical resistivity and ground penetrating radar surveys performed along the Yukon River channel both within and outside the AEM survey area [Froese et al., 2005].

[11] A second factor that appears to influence resistivity is the thermal state of the different subsurface materials. Resistivity values within the upper gravels decrease beneath



**Figure 3.** (a–f) Plan-view slices at depth increments of 15 m through the inverted resistivity models within the AEM survey block. Thin black lines indicate the actual flight path during the survey. Transects denoted A–A', B–B', and C–C' indicate the locations of selected cross-sections illustrated in Figure 4. The black arrows in Figures 3b and 3e highlight the location of a sinuous side-channel of the Yukon River that is also shown in Figure 4.

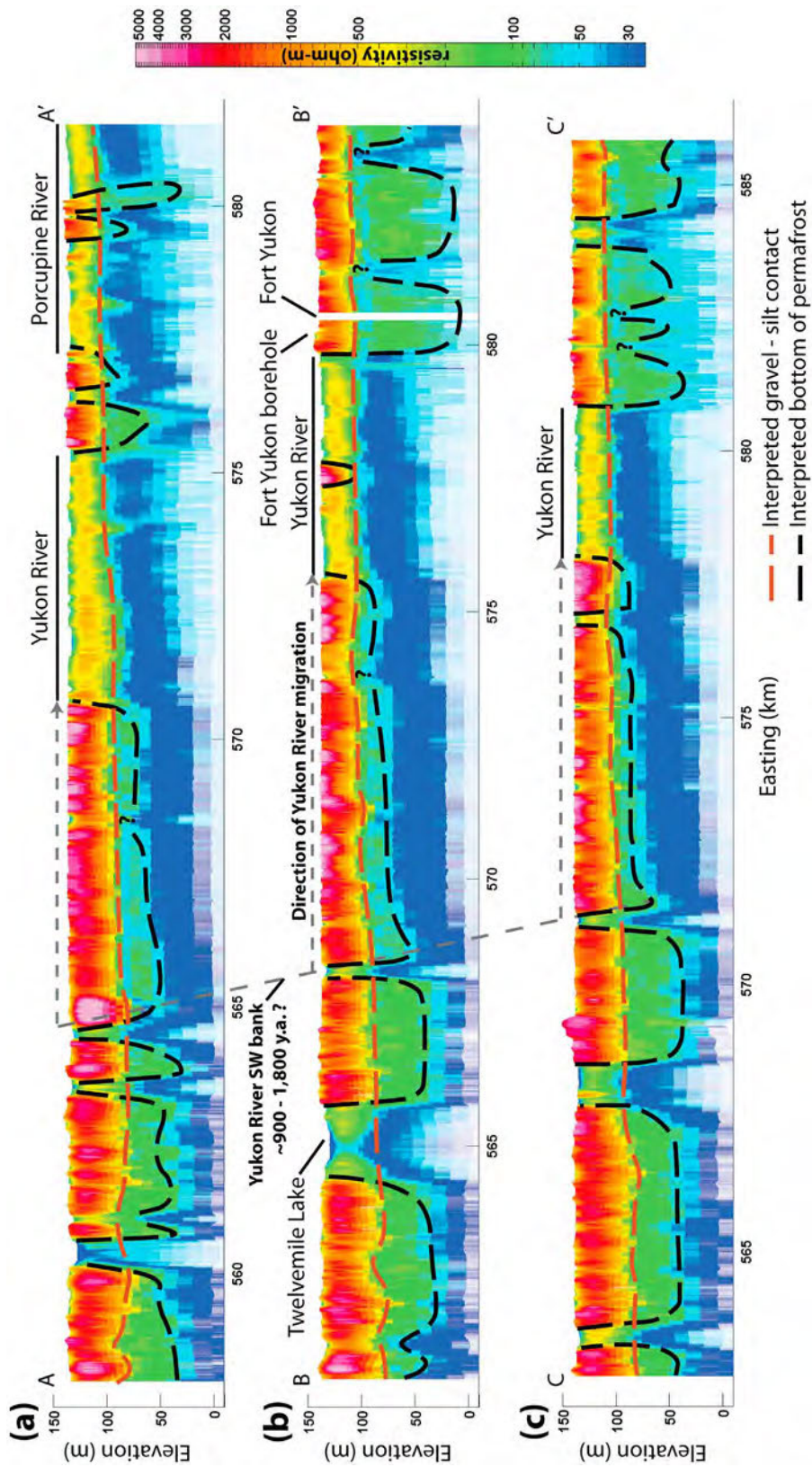
surface water features such as Twelvemile Lake and the Yukon and Porcupine Rivers (Figure 4), which is consistent with these areas being unfrozen or partially frozen (Figure 2). The resistive island in the middle of the Yukon River (Figure 4b) lies between braided river channels and likely has frozen areas as indicated by the presence of old-growth spruce vegetation (*Picea glauca*, *P. mariana*). This also suggests that it is an older landform because younger bars tend to be dominated by deciduous trees (*Populus tremuloides*, *Betula neolaskana*).

[12] Beneath the frozen gravels in the borehole, frozen silts, clays, and sands coincide with intermediate resistivity values of approximately 100 ohm-m from the AEM survey (Figure 2a). Immediately southwest of the Yukon River bank, however, there is a sharp lateral transition to low-resistivity values at depth that dip gradually downward to the southwest away from the river (Figure 4). We interpret this area as an active surface-groundwater 'window' at the location of the present-day Yukon River that is manifested as an unfrozen zone within the lacustrine silts and clays. Northeast of the Yukon River, intermediate-resistivity values suggest frozen conditions at depth (Figures 4b and 4c), except under the Porcupine River (Figure 4a), where we interpret unfrozen conditions to dominate.

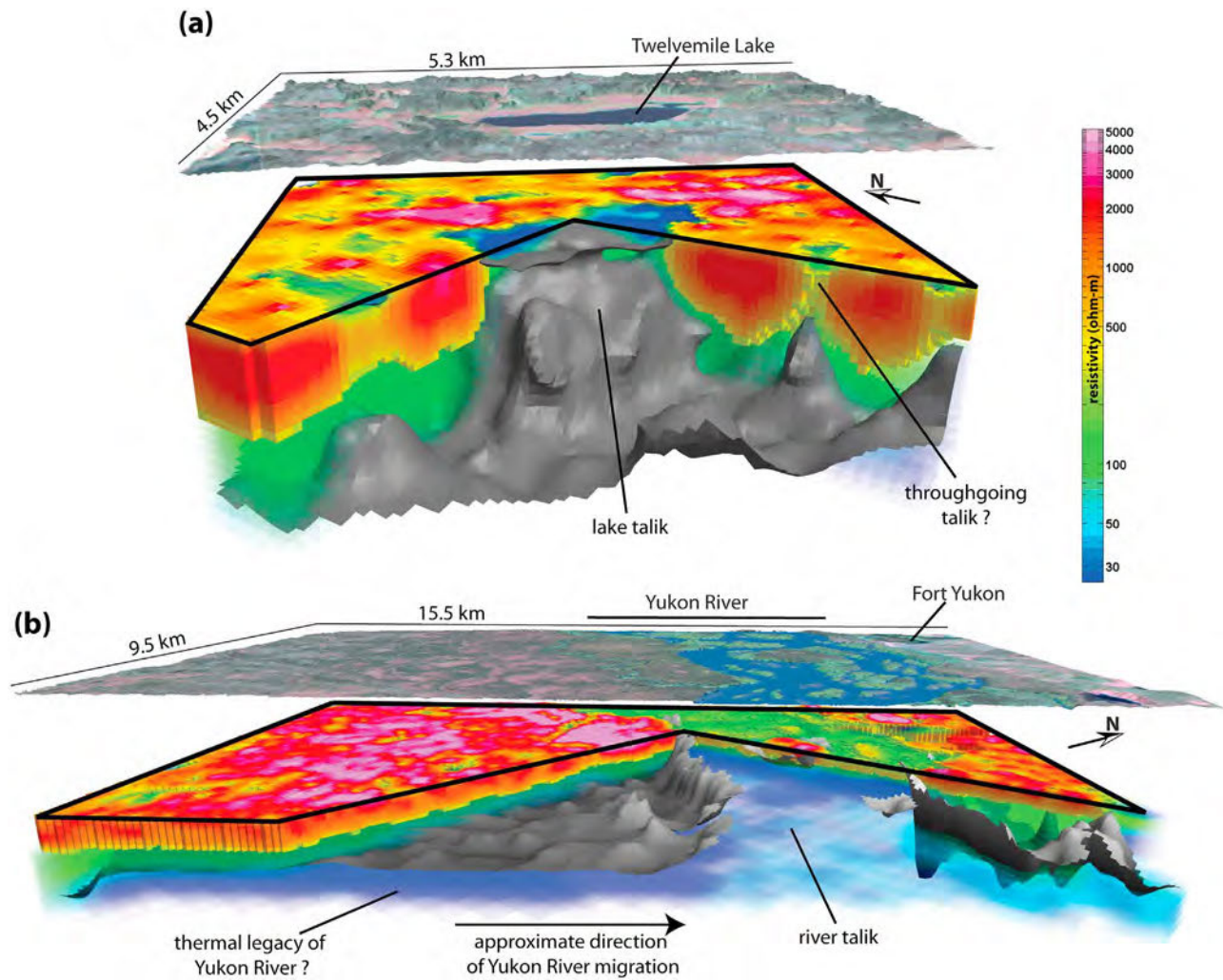
[13] A number of other potentially unfrozen zones can be seen as vertically extensive low-resistivity regions in the depth images in Figure 3, and are co-located with numerous lakes and ponds, a sinuous side-channel of the Yukon River (indicated by arrows in Figures 3 and 4), and Twelvemile

Lake. The black-dashed lines in Figure 4 indicate our interpreted base of permafrost and show that the permafrost layer is absent beneath most of the large surface-water features. In several locations, it is unclear from the resistivity models whether or not there is a through-going unfrozen zone. These locations might represent taliks that have not fully developed or relict taliks that have partially re-frozen. Additional profiles along several of the 'reconnaissance' survey lines (Figure S1 and Text S1 of the auxiliary material) provide a broader view of the hydrogeologic settings within the survey area, and are consistent with features observed in the block portion of the survey as well as the mapped geology (Figure 1).

[14] A three-dimensional view of a large unfrozen zone below a lake is illustrated in Figure 5a, which shows a cutout view of the resistivity model over an area of approximately 24 km<sup>2</sup> surrounding Twelvemile Lake. The gray isosurface embedded in the resistivity image represents our interpretation of the base of permafrost in the subsurface. Unfrozen areas beneath some of the smaller surface-water features are also evident in the subsurface, though it is uncertain if they are fully connected to the sub-permafrost zone. A similar three-dimensional view of about 147 km<sup>2</sup> surrounding the Yukon River is shown in Figure 5b. With the exception of a few small frozen islands, permafrost is absent beneath the river. The base of permafrost deepens rapidly on either side of the river, though it is steepest to the northeast and continues to dip downward gradually to the southwest (Figure 4).



**Figure 4.** Resistivity cross-sections along the three transects highlighted in Figure 3 with relevant surface features annotated. Arrows indicate the location of a sinuous side-channel of the Yukon River that is also evident as a shallow low-resistivity zone in Figures 3b and 3c. Interpreted lithologic and permafrost boundaries are superimposed as dashed lines. Vertical exaggeration is approximately 25:1.



**Figure 5.** Three-dimensional cutout view of the resistivity model in the vicinity of (a) Twelvemile Lake and (b) the Yukon River. The grey isosurfaces are interpreted to indicate the base of permafrost in the subsurface. The upper image in each figure is a Landsat view of the region displayed below. Vertical exaggeration is 12:1.

#### 4.2. Hydrogeologic and Geomorphologic Implications

[15] Low-resistivity unfrozen zones beneath many of the lakes, ponds, and rivers in the study area likely represent taliks that can form beneath surface-water features [Grosse *et al.*, 2011; Yoshikawa and Hinzman, 2003]. Surface water that remains unfrozen in the winter imposes a non-freezing condition on the ground just below, in contrast with adjacent areas of the ground exposed directly to sub-freezing winter temperatures. Therefore, subsurface ice cannot exist permanently below such surface water bodies. Taliks that fully penetrate the entire thickness of permafrost provide pathways for enhanced surface - groundwater interaction and may be associated with shrinking or expanding lakes and ponds [Roach *et al.*, 2011]. Unfrozen zones that do not extend all the way through the permafrost layer appear to correspond with smaller water bodies perched on top of the frozen gravel, or relatively young surface water bodies that have not had sufficient time to develop taliks. Both of these types of features are evident in the AEM survey (Figure 5).

[16] An unexpected finding of the AEM survey is the low-resistivity zone, interpreted as unfrozen, dipping to the

southwest from the present-day Yukon River (Figures 4 and 5b). We speculate that this may be a thermal relic of the northward lateral migration of the Yukon River [Clement, 1999] that has been recorded in the permafrost. If it was stationary long enough at its historic location to the southwest, the Yukon River would have developed a low-resistivity thaw zone beneath it, as is observed today at its current location. As the river migrated to the north, the ground beneath the old river system would begin to re-freeze from the surface downwards [Crampton, 1979]. Using an estimated average lateral migration rate of 5–10 m/yr [Clement, 1999], we estimate that the Yukon River system was above the southwestern extent of the low-resistivity zone in Figure 3f approximately 900–1,800 years ago, roughly 9 km to the south and west of its present location (Figure 4). In order for the surface to re-freeze to a depth of ~70 m, these estimates suggest that the permafrost would have to freeze downward at an average rate of approximately 4–8 cm/yr.

[17] Although this hypothesis is only partially constrained, the rates are roughly consistent with observations [Mackay, 1997] and numerical simulations [Ling and Zhang, 2004]



of taliks that re-freeze after lake drainage. In addition, a very similar permafrost configuration was inferred from borehole observations along a smaller migrating river system in the northern Yukon in Canada [Crampton, 1979]. Radiocarbon ages from sand sheets just north of the Yukon River near Fort Yukon suggest that the river has not been north of its present location in the last  $\sim 10,000$  years [Froese et al., 2005]. This latest Pleistocene age constraint supports our interpretation that the sharp lateral transition in resistivity at the northeast bank of the Yukon River (Figure 4) indicates the boundary where the river is impinging on relatively thick, old permafrost.

[18] Our interpretation is also consistent with the solution to the Stefan problem, where the depth to which permafrost has frozen due to conduction is proportional to the square root of time (i.e.  $z \sim c*t^{1/2}$ ). The constant,  $c$ , is related to the thermal properties of the ground, and is typically in the range 1–5 [Osterkamp and Burn, 2003]. Given the estimate of 900–1,800 years and the AEM-interpreted base of permafrost  $\sim 70$  m, we estimate an average value for  $c$  during that period to be  $\sim 1.6$ – $2.3$ . Detailed field work in the area, along with more rigorous numerical modeling that also incorporates advective processes [Ge et al., 2011; Rowland et al., 2011], could test this hypothesis more rigorously.

## 5. Conclusions

[19] Arctic environments have garnered substantial interest because of their relevance to climate, ecosystems, and natural resources. Permafrost is ubiquitous in cold regions, but the details of its distribution, particularly at depth, remain largely unknown. This work highlights a pioneering application of airborne electromagnetic data to provide detailed regional-scale images of permafrost that cannot be achieved with other types of data. Our results offer new insights into the evolution of permafrost systems, evidenced by the thermal legacy of surface and groundwater features, and will be a critical baseline for future permafrost studies. We further expect that these data will have significant implications for studying other coupled hydrologic systems, such as the development and re-freezing of taliks as they undergo variable thermal forcing. Future work will integrate remote sensing data, targeted ground-based geophysics, shallow probing to assess the top of permafrost, geochemical analyses of lake and river samples, and thermally coupled hydrologic modeling to better understand dynamic permafrost-related processes in the Yukon Flats.

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- T. A. Ager and L. Anderson, Geology and Environmental Change Science Center, U.S. Geological Survey, Denver Federal Center, Box 25046, MS 980, Denver, CO 80225, USA.
- J. C. Cannia, Nebraska Water Science Center, U.S. Geological Survey, 5231 S. 19th St., Lincoln, NE 68512, USA.
- M. T. Jorgenson, Alaska Ecoscience, PO Box 80410, Fairbanks, AK 99708, USA.
- C. I. Voss, National Research Program, U.S. Geological Survey, 345 Middlefield Rd., Menlo Park, CA 94025, USA.
- M. A. Walvoord, National Research Program, U.S. Geological Survey, MS 413, Denver Federal Center, Denver, CO 80225, USA.
- T. P. Wellman, Colorado Water Science Center, U.S. Geological Survey, Denver Federal Center, MS 415, Denver, CO 80225, USA.
- B. K. Wylie, Earth Resources Observation and Science Center, U.S. Geological Survey, 47914 252nd St., Sioux Falls, SD 57198, USA.

**From:** [Rose, Joshua](#)  
**To:** [Koch, Joshua](#)  
**Cc:** [Wendy Loya](#); [Randy Brown](#)  
**Subject:** Re: Urgent: Need info on how to ID spring groundwater flowpaths  
**Date:** Thursday, July 12, 2018 11:27:40 AM

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I just reread the email so I will summarize to 8th grade ;-). They can utilize the already collected seismic data and borehole data from test wells as they do exploratory drilling. If additional information is needed they can contract the collection of EM data or additional surveys that will further inform mapping. These datasets will provide a general picture of possible connections between subsurface layers and can be utilized when developing drilling and reinjection plans.

Thanks,  
Josh

On Thu, Jul 12, 2018 at 9:15 AM, Koch, Joshua <[jkoch@usgs.gov](mailto:jkoch@usgs.gov)> wrote:

Hi All,

Here's an example of the geophysical methods that Josh R. mentioned from Alaska - frozen ground presents another unique challenge to interpreting geophysical results. Large-scale surveys would require flight time with a fixed wing aircraft or helicopter, and ideally installation of boreholes to ground truth the airborne measurements. Smaller-scale surveys can be done on foot, skis, snowmachine, etc, but couldn't "see" as deep in to the ground. In all cases, ground truthing with cores and or boreholes is important.

Thanks,  
Josh K.

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
4210 University Dr. Anchorage, AK 99508  
office: 907-786-7119, cell: 303-817-5595  
[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)  
[Google Scholar Profile](#)  
[Project Website: Arctic - Boreal Catchment Studies](#)

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On Thu, Jul 12, 2018 at 8:48 AM, Rose, Joshua <[joshua\\_rose@fws.gov](mailto:joshua_rose@fws.gov)> wrote:

Wendy,

Recently geophysics has been used to identify preferential flow paths. The idea of this stip is to limit the probability of contamination which does not require fine scale mapping

but rather identification of the strata and preferential flow paths to prevent contamination or dewatering of spring systems. Attached are 3 papers that utilized geophysical surveys to identify preferential flow paths using geophysical analysis. Methods for mapping include seismic, electromagnetic resistivity surveys, and several others. The Robert thesis provides a larger list. The Zielke-Olivier paper used geophysics and hydrology data to identify contaminant flow paths. If we need more info I can dig it up.

Thanks,  
Josh

On Wed, Jul 11, 2018 at 5:03 PM, Koch, Joshua <[jkoch@usgs.gov](mailto:jkoch@usgs.gov)> wrote:

Hi Wendy,

Mapping the locations where the groundwater flowpaths reach the surface is possible in many situations. However, mapping the groundwater flowpaths themselves is nearly impossible, and one of the primary challenges of groundwater hydrology.

Mapping of the locations where the springs discharge to the surface (either in the stream bottom or on land) may be accomplished with remote sensing of either aufeis fields, and/or through the thermal signature of the upwelling spring water. (Flying over the river with a thermal camera may detect the temperature difference between the river and upwelling groundwater). These remote sensing techniques will be useful in locations where the majority of the inflow is occurring in at discrete location. It may be less effective where spring discharge or groundwater upwelling is more diffuse (which could account for up to two thirds of the upwelling based on the limited literature). In these situations, water chemistry sampling may be used to detect that an inflow exists, but determining the location of the diffuse upwelling may require extensive geochemical sampling of the river water along the river.

Please let me know if this is clear. I will be around much of the day on Thursday if you would like to chat more about this.

Also, thank you for your email regarding the proposal. I will talk with Josh R. and we will set up a meeting with the relevant parties to move forward on the full proposal.

Thanks,  
~Josh Koch

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
[4210 University Dr. Anchorage, AK 99508](https://www.usgs.gov/locations/alaska/4210-university-dr-anchorage-ak-99508)  
office: 907-786-7119, cell: 303-817-5595

[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)

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[Project Website: Arctic - Boreal Catchment Studies](#)

\*\*\*\*\*

On Wed, Jul 11, 2018 at 10:01 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Josh, Joshua and Randy,

The FWS has presented a recommendation that includes the following language:

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.

How, in very general 8<sup>th</sup> grade terms, might this be accomplished? Need a response ASAP (today or tomorrow at latest)

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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Joshua Rose  
Acting Oil and Gas Coordinator  
Arctic National Wildlife Refuge  
101 12th Ave., Rm 236  
Fairbanks, AK 99701  
phone: (907) 456-0409

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Joshua Rose  
Acting Oil and Gas Coordinator  
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Fairbanks, AK 99701  
phone: (907) 456-0409

**From:** [Wendy Loya](#)  
**To:** [Robert Brumbaugh \(rbrumbau@blm.gov\)](mailto:rbrumbau@blm.gov)  
**Subject:** FW: Urgent: Need info on how to ID spring groundwater flowpaths  
**Date:** Thursday, July 12, 2018 11:43:00 AM  
**Attachments:** [Miller et al 2010 Geophysic floodplain mapping.pdf](#)  
[Robert 2012 Thesis identification characterization of flowpaths geophysics.pdf](#)  
[Zielke-Olivier 2017 geophysics to map flowpaths in graben.pdf](#)  
[Minsley2012 Airborne electromagnetic imaging of discontinuous permafrost.pdf](#)

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[More info](#)

**From:** Rose, Joshua <joshua\_rose@fws.gov>  
**Sent:** Thursday, July 12, 2018 8:49 AM  
**To:** Koch, Joshua <jkoch@usgs.gov>  
**Cc:** Wendy Loya <wendy\_loya@fws.gov>; Randy Brown <randy\_j\_brown@fws.gov>  
**Subject:** Re: Urgent: Need info on how to ID spring groundwater flowpaths

Wendy,

Recently geophysics has been used to identify preferential flow paths. The idea of this step is to limit the probability of contamination which does not require fine scale mapping but rather identification of the strata and preferential flow paths to prevent contamination or dewatering of spring systems. Attached are 3 papers that utilized geophysical surveys to identify preferential flow paths using geophysical analysis. Methods for mapping include seismic, electromagnetic resistivity surveys, and several others. The Robert thesis provides a larger list. The Zielke-Olivier paper used geophysics and hydrology data to identify contaminant flow paths. If we need more info I can dig it up.

Thanks,  
Josh

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Please let me know if this is clear. I will be around much of the day on Thursday if you would like to chat more about this.

Also, thank you for your email regarding the proposal. I will talk with Josh R. and we will set up a meeting with the relevant parties to move forward on the full proposal.

Thanks,  
~Josh Koch

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
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[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)  
[Google Scholar Profile](#)  
[Project Website: Arctic - Boreal Catchment Studies](#)

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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.

How, in very general 8<sup>th</sup> grade terms, might this be accomplished? Need a response ASAP (today or tomorrow at latest)

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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Joshua Rose  
Acting Oil and Gas Coordinator  
Arctic National Wildlife Refuge  
101 12th Ave., Rm 236  
Fairbanks, AK 99701  
phone: (907) 456-0409

**From:** [Koch, Joshua](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Joshua Rose](#)  
**Subject:** Re: available to meet re. Arctic Refuge Groundwater?  
**Date:** Wednesday, July 18, 2018 4:55:06 PM

---

Hi Wendy,

Thanks for the info. Why don't you, Josh R. and I at least plan to talk on Tuesday, the 24th. If that date works for the whole group, great, but if not at least the three of us can check in.

Thanks,  
~Josh

\*\*\*\*\*

Joshua C. Koch  
Research Hydrologist, U.S. Geological Survey  
4210 University Dr. Anchorage, AK 99508  
office: 907-786-7119, cell: 303-817-5595  
[jkoch@usgs.gov](mailto:jkoch@usgs.gov)

[USGS Profile](#)  
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[Project Website: Arctic - Boreal Catchment Studies](#)

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On Wed, Jul 18, 2018 at 12:42 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Joshes,

I did the poll, and just FYI I will be out of office July 25-Aug 8<sup>th</sup>, then FWS staff will be super busy with a review process 9-15<sup>th</sup>. So if my one date won't work (24<sup>th</sup>), let's talk before then and you can meet with others as a group. Please try to avoid the 9-13<sup>th</sup> for that meeting.

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:** Koch, Joshua <[jkoch@usgs.gov](mailto:jkoch@usgs.gov)>

**Sent:** Wednesday, July 18, 2018 11:24 AM

**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>; Randy Brown <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>; Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Matt Whitman <[mwhitman@blm.gov](mailto:mwhitman@blm.gov)>

**Cc:** Joshua Rose <[joshua\\_rose@fws.gov](mailto:joshua_rose@fws.gov)>

**Subject:** available to meet re. Arctic Refuge Groundwater?

Hello All,

Josh Rose and I are developing a proposal for the FWS/USGS Quick Response/Science Support Partnership program, focused on groundwater resources in the Arctic Refuge 1002 area. We have received some feedback on our preproposal, which included the suggestion to check in with you all regarding the proposal and how to make it most relevant to management needs. We are hoping that you can help us to more explicitly link these hydrologic investigations to management decisions related to oil and gas exploration.

We would like to set up a phone conference with as many of you as are available in the next few weeks to discuss the link between the science and management. If we are unable to find a time that works for everyone, we hope to at least speak with each of you individually before the submission deadline of August 16th. Below are a few more details on the proposal and some of the types of questions that we're interested in discussing.

Please let us know if you can join by using the doodle poll, linked [here](#)

Thank you, and we hope to chat with you soon,

~Josh Koch

Study goal and some questions:

The goal of the proposal is to quantify groundwater resources and the importance of groundwater to river flow, with some consideration of lake water budgets as well. We will determine the proportion of the river hydrographs made up of deep and shallow groundwater sources and precipitation, and determine the locations of upwelling. We will also consider aufeis, which is sourced from deep groundwater, can account for a significant fraction of river baseflow, retards groundwater inputs to rivers, provides important habitat, and is a unique feature of this region.

Some questions to discuss as a group: What are the relevant management decisions that we can inform with a greater understanding of groundwater sources? Ie. is the primary importance winter baseflow? Or connectivity? Or refugia? Or food resources?

What is the likely source of water extraction for industrial purposes? How can these investigations best inform management questions regarding extraction sources and limits?

What are the most important ecosystem questions that we should be considering? Some possible questions include: How important is aufeis in providing refuge to caribou escaping mosquitoes? Are the invertebrate communities particularly important to fish? How do fish use areas with aufeis?

Which rivers are the most important to consider? We will probably be limited to studying between 4 and 8 rivers, which are the ones with the most important fish resources? Probably the Canning, Hula hula, Achillik...?

\*\*\*\*\*

Joshua C. Koch

Research Hydrologist, U.S. Geological Survey

[4210 University Dr. Anchorage, AK 99508](#)

[office: 907-786-7119](#), cell: 303-817-5595

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[Project Website: Arctic - Boreal Catchment Studies](#)

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**From:** [Pearce, John](#)  
**To:** [Wendy Loya](#)  
**Subject:** Fwd: FWS information request  
**Date:** Monday, August 13, 2018 12:36:33 PM  
**Attachments:** [PB Activities in the 1002 Atwood.docx](#)

---

Hi Wendy,

See attached from Todd Atwood for USGS activities during winter in the Arctic Refuge coastal plain in the near future. Please let me know if you need any additional details regarding your request from last week.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

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

**From:** **Atwood, Todd** <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>  
**Date:** Mon, Aug 13, 2018 at 10:29 AM  
**Subject:** Re: FWS information request  
**To:** "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Cc:** Grant Hilderbrand <[ghilderbrand@usgs.gov](mailto:ghilderbrand@usgs.gov)>, Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

On Fri, Aug 10, 2018 at 2:51 PM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Hi Todd and Grant,

Wendy Loya called and is asking for USGS winter (Dec. through May) activity plans in the 1002 Area for the next 5 years for a BLM data call.

Can you please let me know what you might have for this for polar bears? She needs brief description of activities and rough dates and duration of activities. It just needs to be short bullet statements; one per activity. I think we should include the proposed SSP/QRP den disturbance work plus any tagging work.

She wanted to know if we could have this to her by Monday afternoon.

Many thanks,  
John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist

Manager, Wetland and Terrestrial Ecosystems Office  
U.S. Geological Survey, Alaska Science Center  
[4210 University Drive](#)  
[Anchorage, Alaska 99508](#)  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

1. Den noise/vibration study:
  - Duration: 2018-2021
  - Activity: Building artificial dens and monitoring noise and vibration levels
  - When: Dependent on scheduling of seismic surveys; could occur between December through February
2. Spring fieldwork:
  - Duration: Next 5 years
  - Activity: Sampling polar bears on the sea ice; potentially investigating terrestrial den sites identified from FLIR surveys
  - When: Mid-March through April



**From:** [Wendy Loya](#)  
**To:** [Joshua Rose](#)  
**Subject:** USGS Winter research Activities for Seismic EA  
**Date:** Monday, August 13, 2018 12:38:00 PM  
**Attachments:** [PB Activities in the 1002\\_Atwood.docx](#)

---

Hi Josh,

Can you include the following 2 USGS projects in your reply today to BLM regarding winter activities?

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:** Pearce, John <jpearce@usgs.gov>  
**Sent:** Monday, August 13, 2018 10:37 AM  
**To:** Wendy Loya <wendy\_loya@fws.gov>  
**Subject:** Fwd: FWS information request

Hi Wendy,

See attached from Todd Atwood for USGS activities during winter in the Arctic Refuge coastal plain in the near future. Please let me know if you need any additional details regarding your request from last week.

John

John M. Pearce, Ph.D.  
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----- Forwarded message -----

**From:** **Atwood, Todd** <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>  
**Date:** Mon, Aug 13, 2018 at 10:29 AM  
**Subject:** Re: FWS information request  
**To:** "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Cc:** Grant Hilderbrand <[ghilderbrand@usgs.gov](mailto:ghilderbrand@usgs.gov)>, Christian Zimmerman

<[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

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John M. Pearce, Ph.D.  
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<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

**From:** [Wendy Loya](#)  
**To:** [Joshua Rose](#)  
**Subject:** RE: USGS Winter research Activities for Seismic EA  
**Date:** Monday, August 13, 2018 5:06:00 PM

---

Okay, that makes sense. I didn't think through the infrastructure part of the project list you sent. Thanks for enlightening me 😊

Good to go from what little time I have to think about it further 😊  
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:** Monday, August 13, 2018 2:58 PM  
**To:** Wendy Loya <wendy\_loya@fws.gov>  
**Subject:** Re: USGS Winter research Activities for Seismic EA

Wendy,

The other projects that we are aware of are: 1) Angela's contaminants work, 2) NWI mapping, 3) NHD update, 4) Veg. mapping, and 5) a shorebird study that has some funding. We did not think any of these were things that the seismic company would care to know or need to be aware of to avoid impacts to the work. We only included current or planned studies that had infrastructure, plots, or activities that seismic work may impact. Basically it is a list of "we will be out there" or "please don't drive over this stuff".

We could include a projected projects list. We talked about it and Steve and Joanna felt like everything was enough of a moving target that anything we added would have little meaning.

If you are aware of anything that is planned or has significant enough support that it should be included please let me know.

On Mon, Aug 13, 2018 at 1:57 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

There is a looooooottttt more proposed for summer than in this list. We should determine if we want both winter and summer

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](mailto:joshua_rose@fws.gov)>  
**Sent:** Monday, August 13, 2018 1:28 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: USGS Winter research Activities for Seismic EA

Wendy,

Attached is the list I was able to come up with. I will also send Donna a shapefile with the control plot locations. If you don't have any changes I will get it sent off ASAP.

Thanks,  
Josh

On Mon, Aug 13, 2018 at 10:38 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

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907.786.3532 (office)  
907.277.2942 (mobile)

**From:** Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Sent:** Monday, August 13, 2018 10:37 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Fwd: FWS information request

Hi Wendy,

See attached from Todd Atwood for USGS activities during winter in the Arctic Refuge coastal plain in the near future. Please let me know if you need any additional details regarding your request from last week.

John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office

U.S.Geological Survey, Alaska Science Center  
[4210 University Drive](#)  
[Anchorage, Alaska 99508](#)  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

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

From: **Atwood, Todd** <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>  
Date: Mon, Aug 13, 2018 at 10:29 AM  
Subject: Re: FWS information request  
To: "Pearce, John" <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
Cc: Grant Hilderbrand <[ghilderbrand@usgs.gov](mailto:ghilderbrand@usgs.gov)>, Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

On Fri, Aug 10, 2018 at 2:51 PM, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Hi Todd and Grant,

Wendy Loya called and is asking for USGS winter (Dec. through May) activity plans in the 1002 Area for the next 5 years for a BLM data call.

Can you please let me know what you might have for this for polar bears? She needs brief description of activities and rough dates and duration of activities. It just needs to be short bullet statements; one per activity. I think we should include the proposed SSP/QRP den disturbance work plus any tagging work.

She wanted to know if we could have this to her by Monday afternoon.

Many thanks,  
John

John M. Pearce, Ph.D.  
Supervisory Wildlife Biologist  
Manager, Wetland and Terrestrial Ecosystems Office  
U.S.Geological Survey, Alaska Science Center  
[4210 University Drive](#)  
[Anchorage, Alaska 99508](#)  
Tel. 907.786.7094  
Email: [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
<http://alaska.usgs.gov/staff/staffbio.php?employeeid=173>

--

Joshua Rose  
Acting Oil and Gas Coordinator

0000011697

Arctic National Wildlife Refuge  
[101 12th Ave., Rm 236](#)  
[Fairbanks, AK 99701](#)  
phone: (907) 456-0409

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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

**From:** [Johnson, Heather](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Request for full proposal: calving/post-calving habitat  
**Date:** Thursday, August 9, 2018 11:15:17 AM

---

Hi Wendy,

I'm out of the office on Friday, but would love to find another time to talk with you or the botanist about the veg maps. For this caribou analysis, we'll probably be using pretty coarse classifications, so it would be great for me to better understand the limitations of the current veg map and the benefits of the new map for characterizing general plant communities. I'm around until 6pm today, and then will be in the office all next week.

Thanks so much, Heather

On Wed, Aug 8, 2018 at 11:32 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Heather,

The updated Veg mapping would not likely to be completed until April 2020. Given that, does it make sense to wait in this piece? I can put you in touch with our retired botanist to understand the quality of our existing veg map.

Thanks! Just back in office after leave and can talk more this Friday if helpful?

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 Aug 1, 2018, at 15:51, Johnson, Heather <[heatherjohnson@usgs.gov](mailto:heatherjohnson@usgs.gov)> wrote:

Hi Wendy,

I'm wondering where I can get details about the updated vegetation mapping that is currently being done in ANWR, as we consider that data in our upcoming caribou proposal. Also, is there a projected completion date for that work?

Thanks so much, Heather

On Tue, Jul 10, 2018 at 9:57 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

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 considerations 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 16<sup>th</sup> so that our 1002 team can review prior to submission to USGS by August 31<sup>st</sup>.

## **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)

--

**Heather Johnson, Ph.D.**  
**Research Wildlife Biologist**  
USGS Alaska Science Center  
[4210 University Drive](#)  
[Anchorage, Alaska 99508](#)  
Phone: 907.786.7155  
Email: [heatherjohnson@usgs.gov](mailto:heatherjohnson@usgs.gov)

--

**Heather Johnson, Ph.D.**  
**Research Wildlife Biologist**  
USGS Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508  
Phone: 907.786.7155  
Email: [heatherjohnson@usgs.gov](mailto:heatherjohnson@usgs.gov)

**From:** [Wendy Loya](#)  
**To:** [Todd Atwood](#)  
**Cc:** [John Pearce](#)  
**Subject:** RE: Polar bear den locations in the 1002  
**Date:** Wednesday, August 29, 2018 11:36:00 AM

---

Thanks Todd!

Wendy

Dr. Wendy M. Loya,  
Arctic Program Coordinator  
Office of Science Applications, US Fish and Wildlife Service  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** Atwood, Todd <tatwood@usgs.gov>  
**Sent:** Tuesday, August 28, 2018 10:30 PM  
**To:** Wendy M. Loya, PhD <wendy\_loya@fws.gov>  
**Cc:** John Pearce <jpearce@usgs.gov>  
**Subject:** Polar bear den locations in the 1002

Hi Wendy,

John forwarded your email to me. In the attached zip file, you'll find a spreadsheet that lists all the den locations for the 1002 Area, including the 3 that we've documented from 2010 to the present. Note that we haven't had collars out since 2016. Also, you'll notice that for the BEARID column, some cells have "-9999"- that's a code for a bear with no ID.

The zip file also contains GIS files for displaying the den locations.

Let me know if you need anything else.

Thanks,  
Todd

**From:** [Atwood, Todd](#)  
**To:** [Wendy M. Loya, PhD](#)  
**Cc:** [John Pearce](#)  
**Subject:** Polar bear den locations in the 1002  
**Date:** Wednesday, August 29, 2018 12:29:36 AM  
**Attachments:** [polar\\_bear\\_dens\\_ANWR\\_1002\\_28Aug18.zip](#)

---

Hi Wendy,

John forwarded your email to me. In the attached zip file, you'll find a spreadsheet that lists all the den locations for the 1002 Area, including the 3 that we've documented from 2010 to the present. Note that we haven't had collars out since 2016. Also, you'll notice that for the BEARID column, some cells have "-9999"- that's a code for a bear with no ID.

The zip file also contains GIS files for displaying the den locations.

Let me know if you need anything else.

Thanks,  
Todd

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov];  
stephen\_wackowski@ios.doi.gov[stephen\_wackowski@ios.doi.gov]  
**From:** Aimee Devaris  
**Sent:** 2017-12-22T12:52:20-05:00  
**Importance:** Normal  
**Subject:** Re: Polar bear den habitat in 1002  
**Received:** 2017-12-22T12:52:27-05:00

Same here. Thanks, Steve.  
Aimee

Sent from my iPhone

On Dec 22, 2017, at 8:35 AM, Siekaniec, Greg <greg\_siekaniec@fws.gov> wrote:

Much appreciated Steve as this is weighing pretty heavy on me right now given recent budget news and out-year forecasting. I have folks thinking about this already.  
Greg

On Fri, Dec 22, 2017 at 8:30 AM, Wackowski, Stephen  
<stephen\_wackowski@ios.doi.gov> wrote:

Sending to OS for Consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Fri, Dec 22, 2017 at 12:20 PM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

Steve,  
I believe your intent and understanding is correct regarding information we will need for polar bear associated surface and seismic exploration prior to lease sales.

Our polar bear team here in the Service is reaching out to USGS and other experts to

determine how to best complete and provide the information that will assist in planning and permitting with current data so we can avoid challenges to scientific understanding.

The message was very clear yesterday from the principle Deputy Assistant Secretary that the Department anticipated data collection to be a top priority concerning the status of polar bear. We are working to get the requested plan together.

I trust your travels have you back in Alaska and look forward to conversations around this and other implications of the recent legislation.

Best,

Greg

Sent from my iPhone

On Dec 22, 2017, at 8:00 AM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sending to OS for Consultation  
[Redacted]

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Fri, Dec 22, 2017 at 11:58 AM, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

Sending to USGS for Consultation  
[Redacted]

Aimee

Sent from my iPhone

On Dec 22, 2017, at 6:15 AM, Wackowski, Stephen  
<[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sending to OS for Consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Thu, Dec 21, 2017 at 9:23 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
wrote:

**Sending to USGS for Consultation**



Thanks,  
Aimee

On Thu, Dec 21, 2017 at 6:59 AM, Wackowski, Stephen  
<[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

**Sending to OS for Consultation**



Sending to OS for Consultation

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055



**To:** Mary Colligan[mary\_colligan@fws.gov]; Lor, Socheata[socheata\_lor@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Ellis, Mitch[mitch\_ellis@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2017-12-22T15:03:03-05:00  
**Importance:** Normal  
**Subject:** Arctic NWR and the Coastal Plain  
**Received:** 2017-12-22T15:03:10-05:00

Thank you Mary and Soch for already starting to think about the significant demands on us to be engaged in planning, survey work, contracting, and other assorted activities given the recent legislation concerning Arctic NWR and the 1002 area. I'm being asked about funding needs via the department. Interesting this is going over the top of FWS HQ but that is for me to address internally.

I expect it will be a bit difficult to articulate an accurate picture immediately as we do not fully understand the BLM/FWS relationship regarding the language in the legislation.

(b) (5) DPP  
[Redacted text block]

I know you are already thinking about how we will need to respond to the coming tasks and encourage (ask) you to be building a budget around our first thoughts so I can start to provide feedback when I'm in general conversations.

Thank you for starting the process via science and survey discussions on polar bear, reaching out to USGS, engaging with other experts, and with NSSI/BLM. I'm anticipating this will pick up momentum immediately after Christmas.

greg

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Atwood, Todd[tatwood@usgs.gov]; Grant Hilderbrand[ghilderbrand@usgs.gov]; Patrick Lemons[patrick\_lemons@fws.gov]; Ryan Wilson[ryan\_r\_wilson@fws.gov]; Christopher Putnam[christopher\_putnam@fws.gov]; James Wilder[james\_wilder@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2017-12-22T16:55:34-05:00  
**Importance:** Normal  
**Subject:** Polar Bear Information Needs relative to the 1002 Area  
**Received:** 2017-12-22T16:55:41-05:00  
[Polar Bear Study Ideas for 1002 - 171222.docx](#)

Greg Our polar bear and regulatory folks worked in collaboration with USGS to draft the attached document identify priority information and research needs on polar bears to inform decisions relative to activities in the 1002 Area.

While aerial FLIR polar bear den surveys have proved to be effective for locating dens in proximity to oil and gas industry (Industry) activities, they are only part of a larger set of methods and investigations needed to inform our understanding of how polar bears interact with and are affected by Industry activity.

The annual aerial FLIR polar bear den survey conducted by Industry operators is a mitigation requirement tied to MMPA incidental take authorizations and they are not intended or designed as a systematic survey of all dens in a particular area. While the use of aerial FLIR surveys is an important component of our needs relative to Industry activities, it is only one part of a much larger program that will be necessary to reach our determinations under MMPA nad ESA. That larger program need is outlined in the attached document.

We have a great team here and wonderful collaborators at USGS folks rearranged their schedules and came in on their day off today to roll up their sleeves and get this done.

Please let me know if you have questions

--

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

**To:** Tauline Davis[tauline\_davis@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2017-12-28T13:23:25-05:00  
**Importance:** Normal  
**Subject:** Fwd: Polar Bear Information Needs  
**Received:** 2017-12-28T13:23:32-05:00  
Polar Bear Study Ideas for 1002 - 171226 with Implementation.docx

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

**From:** **Colligan, Mary** <mary\_colligan@fws.gov>  
**Date:** Wed, Dec 27, 2017 at 10:18 AM  
**Subject:** Polar Bear Information Needs  
**To:** Gregory Siekaniec <greg\_siekaniec@fws.gov>  
**Cc:** Patrick Lemons <patrick\_lemons@fws.gov>

Greg Patrick and I added a table at the end of the attached document which lays out first year and then annual costs for the polar bear work. Please let us know if you have any questions or need any other information.

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

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2017-12-28T15:35:56-05:00  
**Importance:** Normal  
**Subject:** Polar Bear Information Needs in 1002 Area  
**Received:** 2017-12-28T15:36:04-05:00  
[Polar Bear Study Ideas for 1002 - 171226 with Implementation.docx](#)

Here is the cleaned up version. I will bring hard copies down to Tauline.

Thanks

--

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

**To:** Karen Mouritsen[kmourits@blm.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2017-12-29T12:44:42-05:00  
**Importance:** Normal  
**Subject:** Arctic National Wildlife Refuge  
**Received:** 2017-12-29T12:44:54-05:00  
Alaska National Interest Land Conservation Act Arctic Refuge Purposes and 50 CFR 37.docx

Good Morning Karen,

Thank you for the call yesterday. I appreciate hearing what you glean from discussions with DOI solicitors concerning the recent language about the coastal plain and Arctic Refuge.

Just for your info as I'm sure you have already been provided with the appropriate language concerning the refuge establishment (purposes) and our regulation governing exploration I'm attaching a document I pulled together with the new purpose of oil and gas program.

I think we will still be obligated to consider the refuge purposes when planning, exploration, and development is being considered.

The regulations may well be moot if "similar" to NPRA regs become a requirement to develop new.

Also, I wonder if we should have some FWS and BLM staff take a look at the two regs for "similar" requirements so we will know what is or is not considered that may be important given the status as a National Wildlife Refuge.

Best,

greg

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2017-12-29T14:27:14-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic National Wildlife Refuge  
**Received:** 2017-12-29T14:27:41-05:00

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

On Fri, Dec 29, 2017 at 8:44 AM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Good Morning Karen,  
Thank you for the call yesterday. I appreciate hearing what you glean from discussions with DOI solicitors concerning the recent language about the coastal plain and Arctic Refuge.

Just for your info as I'm sure you have already been provided with the appropriate language concerning the refuge establishment (purposes) and our regulation governing exploration I'm attaching a document I pulled together with the new purpose of oil and gas program.

I think we will still be obligated to consider the refuge purposes when planning, exploration, and development is being considered.

The regulations may well be moot if "similar" to NPRA regs become a requirement to develop new.

Also, I wonder if we should have some FWS and BLM staff take a look at the two regs for "similar" requirements so we will know what is or is not considered that may be important given the status as a National Wildlife Refuge.

0000011714

Best,

greg

**To:** Stephen Wackowski[stephen\_wackowski@ios.doi.gov]  
**Cc:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2017-12-29T15:20:55-05:00  
**Importance:** Normal  
**Subject:** Polar Bear Information  
**Received:** 2017-12-29T15:21:06-05:00  
[Polar Bear Study Ideas for 1002 - 171226 with Implementation.docx](#)

Steve Attached please find the document we discussed this morning. Thank you again for your time and please let me know if you need additional information.

You asked for more information on "stocks" under the Marine Mammal Protection Act (MMPA). The MMPA defines a population or stock as a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature. The Southern Beaufort Sea and the Chukchi Sea are the two stocks of polar bears recognized under the MMPA and for which we complete stock assessment reports. For the purposes of the MMPA, we make our determinations (i.e. small numbers, negligible impact) against the stock.

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



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2017-12-29T16:57:26-05:00  
**Importance:** Normal  
**Subject:** Fwd: Regulations take 2  
**Received:** 2017-12-29T16:57:57-05:00  
[Regulations.docx](#)  
[Naval Petroleum Reserves Production Act of 1976.pdf](#)  
[NPRPA 1980 Amendment.pdf](#)

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Date:** Fri, Dec 29, 2017 at 12:51 PM  
**Subject:** Regulations take 2  
**To:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>

Sending to BLM for consultation



Nicole

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

0000011717

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2017-12-31T16:18:25-05:00  
**Importance:** Normal  
**Subject:** paper  
**Received:** 2017-12-31T16:18:51-05:00  
BLM Alaska BP ANWR 1002 O&G program 12 31 Karen.docx

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

**To:** Mouritsen, Karen[kmourits@blm.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-02T11:43:14-05:00  
**Importance:** Normal  
**Subject:** Re: paper  
**Received:** 2018-01-02T11:44:21-05:00

Best with the meeting today. I agree with the side-by-side comparison so we are informed in the “similar” and what we may be required to consider due to our Refuge purposes.  
Greg

Sent from my iPhone

On Jan 2, 2018, at 6:56 AM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

On Tue, Jan 2, 2018 at 10:21 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Good Morning Karen,  
I quickly read the attached and find it very appropriate at this time. Good

questions that need some opinion from our legal team. Thank you for referencing the tribal consultations and Subsistence considerations. We are developing an information need around polar bear that will inform any permitting for geophysical and development as we go through the EIS development.

The timeline seems okay and will be clearer when we get some opinion on the question raised such as “similar” to NPRA regulations.

I’m in the office today through Thursday should you wish to discuss.

Greg

Sent from my iPhone

On Dec 31, 2017, at 12:18 PM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

<BLM Alaska BP ANWR 1002 O&G program 12 31 Karen.docx>

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Cribley, Bud  
**Sent:** 2018-01-03T09:59:03-05:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain 1002 Area Interagency Conf Call - Proposed Agenda Items  
**Received:** 2018-01-03T09:59:11-05:00  
Attachment 2Jan2018 Coastal Plain 1002 Area State-of-Knowledge Agenda.docx

Good Morning Greg,

I have been out the last two weeks but finally back in the office. I was wondering what conversations there have been on the path forward on the 1002. Are you all still pursuing the rule change for exploration? What are the next steps? What can I do to help?

If you have time to talk it would be good to catch up.

Bud

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

**From:** **Martin, John** <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)>  
**Date:** Tue, Jan 2, 2018 at 11:56 AM  
**Subject:** Coastal Plain 1002 Area Interagency Conf Call - Proposed Agenda Items  
**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>, "Putnam, Christopher" <[christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>, Mark Miller <[memiller@blm.gov](mailto:memiller@blm.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, Robert Brumbaugh <[rbrumbau@blm.gov](mailto:rbrumbau@blm.gov)>, Zachary Lyons <[zlyons@blm.gov](mailto:zlyons@blm.gov)>, Steven Cohn <[scohn@blm.gov](mailto:scohn@blm.gov)>, Jenifer Kohout <[jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)>, David Houseknecht <[dhouse@usgs.gov](mailto:dhouse@usgs.gov)>, Marti Miller <[mlmiller@usgs.gov](mailto:mlmiller@usgs.gov)>, Stacie McIntosh <[s05mcint@blm.gov](mailto:s05mcint@blm.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, "Cribley, Bud" <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>, Patrick Lemons <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>, Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>, Edward Decleva <[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)>, Douglas Campbell <[douglas\\_campbell@fws.gov](mailto:douglas_campbell@fws.gov)>, Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, Wayne Svejnoha <[wsvejnoh@blm.gov](mailto:wsvejnoh@blm.gov)>  
**Cc:** Mitch Ellis <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>

All

This is the first day of work following the holidays and today and tomorrow I'll be sorting through the doodle-poll responses. With 12 responding thus far, it appears the 8

0000011721

Jan will be our day, but polling is still open.

Please be advised of the tentative agenda/discussion items attached.

Other considerations are: oil and gas activities are no longer limited to exploration activities but include the larger suite of exploration, development, production, and transportation. As such, we need to look at year-round, long-term human activities on the coastal plain, not just winter seismic surveys.

We are still targeting a preliminary response for each of the resource subjects to DOI by 15 Jan 2018.

Thanks

John

--

**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](mailto:bud_cribley@fws.gov)**

**To:** Cribley, Bud[bud\_cribley@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-03T11:55:23-05:00  
**Importance:** Normal  
**Subject:** Re: Coastal Plain 1002 Area Interagency Conf Call - Proposed Agenda Items  
**Received:** 2018-01-03T11:55:29-05:00

I'll give you a call. I need to ask a favor as well.  
Greg

Sent from my iPhone

On Jan 3, 2018, at 5:59 AM, Cribley, Bud <bud\_cribley@fws.gov> wrote:

Good Morning Greg,  
I have been out the last two weeks but finally back in the office. I was wondering what conversations there have been on the path forward on the 1002. Are you all still pursuing the rule change for exploration? What are the next steps? What can I do to help?

If you have time to talk it would be good to catch up.

Bud

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

**From:** **Martin, John** <john\_w\_martin@fws.gov>  
**Date:** Tue, Jan 2, 2018 at 11:56 AM  
**Subject:** Coastal Plain 1002 Area Interagency Conf Call - Proposed Agenda Items  
**To:** John Trawicki <john\_trawicki@fws.gov>, John Pearce <jpearce@usgs.gov>, Aimee Devaris <adevaris@usgs.gov>, Christian Zimmerman <czimmerman@usgs.gov>, "Putnam, Christopher" <christopher\_putnam@fws.gov>, Steve Berendzen <steve\_berendzen@fws.gov>, Sara Longan <slongan@blm.gov>, Mark Miller <memiller@blm.gov>, Joanna Fox <joanna\_fox@fws.gov>, Doug Damberg <doug\_damberg@fws.gov>, Stephen Arthur <stephen\_arthur@fws.gov>, Ronnie Sanchez <ronnie\_sanchez@fws.gov>, Robert Brumbaugh <rbrumbau@blm.gov>, Zachary Lyons <zlyons@blm.gov>, Steven Cohn <scohn@blm.gov>, Jenifer Kohout <jenifer\_kohout@fws.gov>, David Houseknecht <dhouse@usgs.gov>, Marti Miller <mlmiller@usgs.gov>, Stacie McIntosh <s05mcint@blm.gov>, Eric Taylor <eric\_taylor@fws.gov>, "Cribley, Bud" <bud\_cribley@fws.gov>, Patrick Lemons <patrick\_lemons@fws.gov>, Drew Crane <drew\_crane@fws.gov>, Wendy Loya <wendy\_loya@fws.gov>, Sarena Selbo <sarena\_selbo@fws.gov>, Edward Decleva <edward\_decleva@fws.gov>, Douglas Campbell <douglas\_campbell@fws.gov>, Paul Leonard <paul\_leonard@fws.gov>, Wayne

Svejnoha <[wsvejnoh@blm.gov](mailto:wsvejnoh@blm.gov)>  
Cc: Mitch Ellis <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>

All

This is the first day of work following the holidays and today and tomorrow I'll be sorting through the doodle-poll responses. With 12 responding thus far, it appears the 8 Jan will be our day, but polling is still open.

Please be advised of the tentative agenda/discussion items attached.

Other considerations are: oil and gas activities are no longer limited to exploration activities but include the larger suite of exploration, development, production, and transportation. As such, we need to look at year-round, long-term human activities on the coastal plain, not just winter seismic surveys.

We are still targeting a preliminary response for each of the resource subjects to DOI by 15 Jan 2018.

Thanks

John

--

**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](mailto:bud_cribley@fws.gov)**

<Attachment 2Jan2018 Coastal Plain 1002 Area State-of-Knowledge Agenda.docx>



**To:** Bud Cribley[bud\_cribley@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-01-03T13:40:34-05:00  
**Importance:** Normal  
**Subject:** Fwd: BLM Alaska ANWR 1002 Oil and Gas Program BP  
**Received:** 2018-01-03T13:40:45-05:00  
BLM Alaska BP ANWR 1002 O&G Program (Jan 2 2018) AKSO Final.docx

FYI

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

**From:** Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Date:** Wed, Jan 3, 2018 at 9:24 AM  
**Subject:** Fwd: BLM Alaska ANWR 1002 Oil and Gas Program BP  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** Thurn, Linda <[lthurn@blm.gov](mailto:lthurn@blm.gov)>  
**Date:** Wed, Jan 3, 2018 at 9:19 AM  
**Subject:** Re: BLM Alaska ANWR 1002 Oil and Gas Program BP  
**To:** "Mouritsen, Karen" <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Cc:** Eileen Frost <[efrost@blm.gov](mailto:efrost@blm.gov)>

Sending to BLM for consultation



Thanks again,  
Linda

On Wed, Jan 3, 2018 at 11:28 AM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Sending to BLM for consultation



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Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

From: **Mouritsen, Karen** <[kmourits@blm.gov](mailto:kmourits@blm.gov)>

Date: Tue, Jan 2, 2018 at 5:41 PM

Subject: Fwd: BLM Alaska ANWR 1002 Oil and Gas Program BP

To: Brian Steed <[bsteed@blm.gov](mailto:bsteed@blm.gov)>, Michael Nedd <[mnedd@blm.gov](mailto:mnedd@blm.gov)>, Peter Mali  
<[pmali@blm.gov](mailto:pmali@blm.gov)>, Timothy Shannon <[tshannon@blm.gov](mailto:tshannon@blm.gov)>, Timothy Spisak  
<[tspisak@blm.gov](mailto:tspisak@blm.gov)>, Stephanie Miller <[smiller@blm.gov](mailto:smiller@blm.gov)>, Kelly Orr <[korr@blm.gov](mailto:korr@blm.gov)>

Cc: Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>, Lesli Ellis-Wouters <[lellis@blm.gov](mailto:lellis@blm.gov)>, Serena Sweet  
<[ssweet@blm.gov](mailto:ssweet@blm.gov)>

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

0000011726

**To:** Mouritsen, Karen[kmourits@blm.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-01-03T14:59:28-05:00  
**Importance:** Normal  
**Subject:** Re: BLM Alaska ANWR 1002 Oil and Gas Program BP  
**Received:** 2018-01-03T14:59:38-05:00

Thanks Karen

On Wed, Jan 3, 2018 at 9:24 AM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Sending to BLM for consultation

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** Thurn, Linda <[lthurn@blm.gov](mailto:lthurn@blm.gov)>  
**Date:** Wed, Jan 3, 2018 at 9:19 AM  
**Subject:** Re: BLM Alaska ANWR 1002 Oil and Gas Program BP  
**To:** "Mouritsen, Karen" <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Cc:** Eileen Frost <[efrost@blm.gov](mailto:efrost@blm.gov)>

Sending to BLM for consultation

Thanks again,  
Linda

On Wed, Jan 3, 2018 at 11:28 AM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Sending to BLM for consultation

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080

0000011727

cell 202-329-2030

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

From: **Mouritsen, Karen** <[kmourits@blm.gov](mailto:kmourits@blm.gov)>

Date: Tue, Jan 2, 2018 at 5:41 PM

Subject: Fwd: BLM Alaska ANWR 1002 Oil and Gas Program BP

To: Brian Steed <[bsteed@blm.gov](mailto:bsteed@blm.gov)>, Michael Nedd <[mnedd@blm.gov](mailto:mnedd@blm.gov)>, Peter Mali <[pmali@blm.gov](mailto:pmali@blm.gov)>, Timothy Shannon <[tshannon@blm.gov](mailto:tshannon@blm.gov)>, Timothy Spisak <[tspisak@blm.gov](mailto:tspisak@blm.gov)>, Stephanie Miller <[smiller@blm.gov](mailto:smiller@blm.gov)>, Kelly Orr <[korr@blm.gov](mailto:korr@blm.gov)>

Cc: Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>, Lesli Ellis-Wouters <[lellis@blm.gov](mailto:lellis@blm.gov)>, Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

0000011728

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Cribley, Bud  
**Sent:** 2018-01-03T16:23:13-05:00  
**Importance:** Normal  
**Subject:** Fwd: Polar Bear Information Needs relative to the 1002 Area  
**Received:** 2018-01-03T16:23:23-05:00  
Polar Bear Study Ideas for 1002 - 171222.docx

Greg,

How does this fit into BLM's proposed NEPA timeline for leasing? Would this information be needed for this NEPA?

Bud

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

**From:** **Wainman, Barbara** <barbara\_wainman@fws.gov>  
**Date:** Wed, Jan 3, 2018 at 4:01 PM  
**Subject:** Fwd: Polar Bear Information Needs relative to the 1002 Area  
**To:** Jim Kurth <jim\_kurth@fws.gov>, Bud Cribley <bud\_cribley@fws.gov>

Barbara W. Wainman  
Assistant Director, External Affairs  
US Fish and Wildlife Service  
(202) 208 5256 (office)  
(571) 471 4159 (cell)

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

**From:** **Kinsinger, Anne** <akinsinger@usgs.gov>  
**Date:** Wed, Jan 3, 2018 at 3:56 PM  
**Subject:** Fwd: Polar Bear Information Needs relative to the 1002 Area  
**To:** Greg Sheehan <greg\_j\_sheehan@fws.gov>, "Wainman, Barbara" <barbara\_wainman@fws.gov>  
**Cc:** Bill Werkheiser <whwerkhe@usgs.gov>, Judy J Nowakowski <jnowakowski@usgs.gov>

Sending to USGS for consultation

-----  
Anne E. Kinsinger  
Associate Director for Ecosystems  
US Geological Survey  
12201 Sunrise Valley Dr.  
Reston, VA 20192

0000011729

703-648-4050  
Cell: 571-212-6898

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

From: **Devaris, Aimee** <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
Date: Wed, Jan 3, 2018 at 3:31 PM  
Subject: Fwd: Polar Bear Information Needs relative to the 1002 Area  
To: "Kinsinger, Anne" <[akinsinger@usgs.gov](mailto:akinsinger@usgs.gov)>

Sending to  
USGS for  
consultation

Regards,  
Aimee

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

From: **Zimmerman, Christian** <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>  
Date: Tue, Dec 26, 2017 at 9:58 AM  
Subject: Fwd: Polar Bear Information Needs relative to the 1002 Area  
To: Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>

Sending to USGS for consultation

chris

Christian E. Zimmerman  
Center Director  
USGS Alaska Science Center  
4210 University Dr.  
Anchorage, AK 99508  
(907)786-7071  
[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)

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

From: **Colligan, Mary** <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>  
Date: Fri, Dec 22, 2017 at 12:55 PM  
Subject: Polar Bear Information Needs relative to the 1002 Area  
To: Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
Cc: "Atwood, Todd" <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>, Grant Hilderbrand <[ghilderbrand@usgs.gov](mailto:ghilderbrand@usgs.gov)>, Patrick Lemons <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>, Ryan Wilson <[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)>, Christopher Putnam <[christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)>, James Wilder <[james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)>

0000011730

Greg Our polar bear and regulatory folks worked in collaboration with USGS to draft the attached document identify priority information and research needs on polar bears to inform decisions relative to activities in the 1002 Area.

While aerial FLIR polar bear den surveys have proved to be effective for locating dens in proximity to oil and gas industry (Industry) activities, they are only part of a larger set of methods and investigations needed to inform our understanding of how polar bears interact with and are affected by Industry activity.

The annual aerial FLIR polar bear den survey conducted by Industry operators is a mitigation requirement tied to MMPA incidental take authorizations and they are not intended or designed as a systematic survey of all dens in a particular area. While the use of aerial FLIR surveys is an important component of our needs relative to Industry activities, it is only one part of a much larger program that will be necessary to reach our determinations under MMPA nad ESA. That larger program need is outlined in the attached document.

We have a great team here and wonderful collaborators at USGS folks rearranged their schedules and came in on their day off today to roll up their sleeves and get this done.

Please let me know if you have questions

--

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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Grant V. Hilderbrand, Ph.D., C.W.B.  
Marine Ecosystems Office  
Alaska Science Center  
USGS  
4210 University Drive  
Anchorage, AK 99508  
(907) 786-7076  
[ghilderbrand@usgs.gov](mailto:ghilderbrand@usgs.gov)

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey

4210 University Drive  
Anchorage, Alaska  
907-786-7055

--

**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](mailto:bud_cribley@fws.gov)**



**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-03T16:28:52-05:00  
**Importance:** Normal  
**Subject:** Polar Bear Information Needs  
**Received:** 2018-01-03T16:29:02-05:00  
Polar Bear Study Ideas for 1002 - 180103 with Implementation.docx

Greg I have attached the updated version of the document. Most items on the list are intended to be done jointly between USGS and FWS so we noted that in the subheadings. For the regulatory/mitigation pieces we just listed FWS.

Thanks

--

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

**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-03T19:34:44-05:00  
**Importance:** Normal  
**Subject:** Update for Arctic Refuge Coastal Plain Map and Information request  
**Received:** 2018-01-03T19:34:48-05:00

Hi Greg,

As I set about acquiring the information you requested regarding the Coastal Plain or "1002 Area" in Arctic Refuge, I had no idea how clandestine this topic would turn out to be. I found the two articles linked below. They give the best account of the intrigue and mystery that surrounds, to date, the only oil test well in Arctic Refuge, KIC-1. It is a pretty interesting story. When you have some time, read the articles below for information on the test well, results from the test well, and the secrecy surrounding the results. The first is from July 2017 and the Second is from April 2001.

<https://www.arcticnow.com/business/energy/2017/07/24/mystery-surrounds-the-only-oil-well-ever-drilled-in-alaskas-arctic-refuge/>

<http://articles.latimes.com/2001/apr/29/local/me-56952>

In regard to creating a map - I had a preliminary discussion with Doug Campbell, John Brewer, and John Trawicki today. I will be meeting with them again in the morning to identify some details to pull together a great tool to help illustrate the Coastal Plain's current story and answer some of the questions that have been coming your way.

More to come...

Thanks so much!  
Amee

--

*Amee Howard*

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Jim Kurth[jim\_kurth@fws.gov]; Bud Cribley[bud\_cribley@fws.gov]  
**From:** Barbara Wainman  
**Sent:** 2018-01-04T08:36:54-05:00  
**Importance:** Normal  
**Subject:** Re: Polar bears  
**Received:** 2018-01-04T08:37:00-05:00

His cell phone is (b) (6). He is terrible at email or maybe just mine (I am usually telling him something he does not want to hear) but he generally answers the phone and responds to texts. I am sure he will enjoy seeing you next week. And I don't mean to be in the middle of it greg just included me as it was USGS and polar bears were on his mind. Safe travels.

Sent from my iPhone

On Jan 4, 2018, at 2:35 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Thank you Barbara. We have been engaging USGS in our discussions and I speak with Aimee about our various assignments concerning the Arctic Refuge geological investigations and our more recent polar bear questions and interest. Our planning thoughts concerning polar bear are coming together and will be forwarded to HQ soon. We have developed our preliminary thoughts with USGS and anticipate their involvement being key to us having a successful polar bear investigation that will provide us with needed information for Marine Mammal Protection Act and Endangered Species Act requirements.

I will give Bill a call or try and visit with him next week when in DC.

Greg

Sent from my iPhone

On Jan 3, 2018, at 11:20 AM, Wainman, Barbara <[barbara\\_wainman@fws.gov](mailto:barbara_wainman@fws.gov)> wrote:

I was in a meeting earlier today with Greg Sheehan and Anne Kinsinger and Bill Werkheiser of USGS. Greg, I understand you and Bill went to SESCDP charm school together so you are acquainted. Anyway Greg Sheehan wanted to know what USGS could do to help address the polar bear denning questions that seem to be on everyone's mind of late. He asked Bill to call you Greg but also asked Jim earlier today to call you so before everyone starts calling thought I would let you know of this meeting. You may already talked to Amiee Devaris or others in the USGS in Alaska about this we can share with Greg. Let me know if there is anything more I can do to facilitate the union between my two favorite DOI Bureaus -- sorry Bud I do love BLM too!

Barbara W. Wainman  
Assistant Director, External Affairs  
US Fish and Wildlife Service  
(202) 208 5256 (office)  
(571) 471 4159 (cell)

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Jenifer Kohout[jenifer\_kohout@fws.gov]; Patrick Lemons[patrick\_lemmons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-04T20:51:11-05:00  
**Importance:** Normal  
**Subject:** Polar Bear Needs - Details  
**Received:** 2018-01-04T20:51:14-05:00  
[Polar Bear Study Ideas for 1002 - 180104 v3.docx](#)

Greg We added a second table to the end of this document that provides more detail on implementation of the first phase. The amount does total \$2.7M primarily driven by the full year FTE costs that we included. We put a note in the header to the table that we costed out all positions at the full 12 months assuming some or all of the capacity needs would be met at least in the short term by contract versus hiring.

Thanks and please let us know if you have questions

--

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

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**Cc:** Jenifer Kohout[jenifer\_kohout@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-05T10:05:24-05:00  
**Importance:** Normal  
**Subject:** Re: Polar Bear Needs - Details  
**Received:** 2018-01-05T10:05:26-05:00

Thank you Mary.

Sent from my iPhone

On Jan 4, 2018, at 7:32 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Hi Greg These are all reasonable questions. We will get you some information in the morning.

On Thu, Jan 4, 2018 at 5:43 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Thanks Mary. Can you give me a quick marine mammals group/program perspective? Number of employees and their primary function? I'm sure I will be asked how many "polar bear" focused employees we have and how many we have doing other marine mammal work. e.g., sea otter and walrus. I will probably be asked whether we can redirect employees to the polar bear work and forgo for a period the other focus areas.

Thoughts are appreciated.

Greg

Sent from my iPhone

On Jan 4, 2018, at 4:51 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg We added a second table to the end of this document that provides more detail on implementation of the first phase. The amount does total \$2.7M primarily driven by the full year FTE costs that we included. We put a note in the header to the table that we costed out all positions at the full 12 months assuming some or all of the capacity needs would be met at least in the short term by contract versus hiring.

Thanks and please let us know if you have questions

--

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

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<Polar Bear Study Ideas for 1002 - 180104 v3.docx>

--

Mary Colligan  
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**To:** Martin, John[[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)]  
**Cc:** Stephanie Brady[[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)]; Drew Crane[[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)]; Lor, Socheata[[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)]; Doug Damberg[[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)]; Gregory Siekaniec[[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**From:** Cribley, Bud  
**Sent:** 2018-01-05T12:02:32-05:00  
**Importance:** Normal  
**Subject:** Re: Coastal Plain 1002 Area Interagency, Interdisciplinary Meeting-Conference Call  
**Received:** 2018-01-05T12:02:42-05:00

LOL

Greg Siekaniec shared with me a briefing paper that BLM AK developed that has this schedule in it. You might want to visit with him. Where you have not heard of this, this briefing paper maybe still internal to BLM, so be careful how you share this information. I won't be the one bringing this up at the Monday call.

Thanks for the feed back.

Bud

On Fri, Jan 5, 2018 at 11:49 AM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:

Bud

Thanks for the update.

I am not aware of any NEPA compliance relative to the 1002 area other than the Service's proposed rule for surface geology and geophysical exploration.

If the BLM is moving ahead with an EIS for a leasing and production plan in the 1002 area I would think there would be some coordination here on the user-end, but communication routing is still being sorted out. Maybe this will be announced to the team on Monday or from the senior oversight team. With a Sep DEIS this appears to be moving on the accelerated NEPA schedule as warranted for infrastructure projects. Further, this begs the matter of a Service role as a cooperator.

Will pass this tidbit along as this definitely puts a timeframe on our response to the new refuge purpose of an oil and gas program. I will defer to you to make this announcement on Mon if BLM does not bring it up.

Please advise us if there are any other updates you think we should know. As you can imagine, keeping up with pace of information exchange is a bit of a struggle right now.

Thanks

John



On Fri, Jan 5, 2018 at 7:09 AM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

John,

Is this work taking into consideration the proposed timeline that BLM is putting to the EIS for a Leasing and Production plan? The paper I have shows a Draft EIS out September 2018.

Bud

On Thu, Jan 4, 2018 at 5:22 PM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:

All

An interagency, interdisciplinary meeting-conference call will convene at the FWS Alaska Region office on 0900-1100 Monday 8 January 2018. Apologies in advance for such short notice but I believe all are aware of the fast-paced nature and need.

For those physically attending, we will meet in the Gordon Watson conference room (first floor); our address is 1011 East Tudor Road, Anchorage, AK.

Vidyo access is available for Service staff. For others calling in please use (b) (5) CIP [REDACTED] passcode (b) (5) CIP [REDACTED].

Please see attachments for details. Also attached is a sign-in sheet for those that may wish to submit a scan for our record and ensure your attendance is annotated.

If you have any other questions, or I may provide additional information, please let me know.

Thanks

John

--

**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](mailto: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](mailto:bud_cribley@fws.gov)**

**To:** Sara Boario[sara\_boario@fws.gov]; Drew Crane[drew\_crane@fws.gov]; Damberg, Doug[doug\_damberg@fws.gov]; Socheata Lor[socheata\_lor@fws.gov]  
**Cc:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-05T15:03:13-05:00  
**Importance:** Normal  
**Subject:** Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP for your review  
**Received:** 2018-01-05T15:03:24-05:00  
[Arctic NWR \(Feb 2018\).docx](#)

Hi All,

Please see Devin's note below. It seems like this may not be uploaded to DTS just yet and we have an opportunity to review. It will be uploaded to DTS next week as part of a much larger package in the "Sensitive" database. In any case, have your teams take a look. The BP can only be one page, so let me know your suggestions. We can do all the edits here, get it cleared through the Regional Director and I can send it back to Devin at HQ to get it uploaded within the larger package for the final final surnaming. The HQ team worked from last year's Budget BP that we provided.

Please let me know if you have questions on the process.

Thanks so much!  
Amee

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

**From:** Helfrich, Devin <devin\_helfrich@fws.gov>  
**Date:** Fri, Jan 5, 2018 at 10:37 AM  
**Subject:** Arctic NWR BP for your review  
**To:** Amee Howard <amee\_howard@fws.gov>

Hi Amee,

Here is the **Arctic NWR** briefing paper for the region's review per our telephone chat.

Please send back any edits directly to me in the attached Word Doc.

Deadline is **COB Monday** (Alaska Time).

Note: the BP must be **one page** in length, no exceptions.

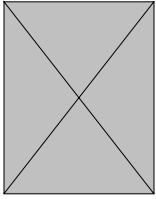
Call me with any questions, thank you guys

Best,

**Devin Helfrich**  
Congressional Legislative Affairs Specialist  
U.S. Fish and Wildlife Service  
Office Direct: (703) 358-2130

0000011743

Mobile: (202) 365-5971



--

*Amee Howard*

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

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Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Jenifer Kohout[jenifer\_kohout@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-05T15:41:03-05:00  
**Importance:** Normal  
**Subject:** R7 MMM Program  
**Received:** 2018-01-05T15:41:10-05:00  
[R7 MMM.docx](#)

Greg I have attached a document which attempts to address your questions on staffing and workload within our marine mammals program and options and consequences of redirecting staff to address the needs identified for polar bears in the 1002 area. I know it is a bit complicated, but we wanted you to have a full picture for consideration. Please let us know if you have questions or need additional or different information.

Folks are working with Alissa on the FLIR survey contract. The Scope of Work should be done today or Monday at the latest. Assuming that is the case, Alissa thinks it can be awarded the first week of February. We are planning that we will have 3 4 weeks of possible flying time at the most so have focused the effort on one section of the coast with some runs up rivers as well. This is very much a pilot and is smaller in scale and duration than we are proposing for outyears. Consequently our cost estimate for the contract is around \$250K.

Thank you,  
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

0000011745

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Jenifer Kohout[jenifer\_kohout@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-05T16:38:51-05:00  
**Importance:** Normal  
**Subject:** Re: R7 MMM Program  
**Received:** 2018-01-05T16:38:58-05:00

I am not entirely sure what is the source of the disconnect. Todd Atwood is the lead for the USGS polar bear program and he is certainly telling us they do not have sufficient resources to do a full field season this year and are restricting it to 3 weeks. So he is not suggesting they have additional resources to devote to the needs identified in the 1002 polar bear document. Some of the disconnect may be a result of us not being very specific about roles and responsibilities. For instance, they strongly agree with us that improved collar technology is critical and urgent. But, they may be thinking they don't need funds for it as they may think we are going to take the lead on issuing a RFP and funding R&D. The expanded population monitoring program for the Southern Beaufort Sea population would not really kick off until next year so they may be thinking the immediate needs for funding are limited. The den detection and mitigation pieces in the near term implementation plan are our lead so again the financial commitment for USGS is limited.

So, in the FY18 plan they may view their responsibility as really the planning and coordination with Canada on population monitoring and updating the habitat modeling. Our estimates of increased capacity and travel to accomplish those tasks totals \$350K. That could be further reduced if they have some capacity to redirect any existing staff. Given that the disconnect may not be as large as it appeared at first. Their projected costs would increase significantly next year, assuming they would be conducting the field work in US and Canada to obtain the updated population information (annual cost of \$2.5M).

On Fri, Jan 5, 2018 at 12:21 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Thank you. This will help me have discussions that I'm sure are coming when we get into further funding dialogue.

Do you have any additional thoughts on what we discussed yesterday concerning USGS funding need vs. our document? We seem to have a disconnect somewhere in our thinking.

Perhaps I should try and sit down with Aimee in an attempt to get on the same page.

Greg

Sent from my iPhone

On Jan 5, 2018, at 12:41 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg I have attached a document which attempts to address your questions on staffing and workload within our marine mammals program and options and consequences of redirecting staff to address the needs identified for polar bears in the 1002 area. I know it is a bit complicated, but we wanted you to have a full picture for consideration. Please let us know if you have questions or need additional or different information.

Folks are working with Alissa on the FLIR survey contract. The Scope of Work should be done today or Monday at the latest. Assuming that is the case, Alissa thinks it can be awarded the first week of February. We are planning that we will have 3 4 weeks of possible flying time at the most so have focused the effort on one section of the coast with some runs up rivers as well. This is very much a pilot and is smaller in scale and duration than we are proposing for outyears. Consequently our cost estimate for the contract is around \$250K.

Thank you,  
Mary

--

Mary Colligan  
Assistant Regional Director  
Fisheries and Ecological Services  
U.S. Fish and Wildlife Service, Alaska Region  
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Anchorage, AK 99503  
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<R7 MMM.docx>

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Mary Colligan  
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**To:** Karen Clark[karen\_clark@fws.gov]; Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]; Christopher Putnam[christopher\_putnam@fws.gov]; Jenifer Kohout[jenifer\_kohout@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-05T23:31:01-05:00  
**Importance:** Normal  
**Subject:** Meeting on Polar Bear Den Detection  
**Received:** 2018-01-05T23:31:04-05:00

Greg and Karen Christopher, Patrick and I attended a meeting today hosted by Steve Wackowski to talk about the possible use of satellite images for the detection of polar bear dens. Steve opened the meeting by saying this was NOT to talk about the possible FLIR surveys this year. Chris Noyles, BLM/USGS/CAC seems to be the primary point of contact with access to the images. I was not familiar with the CAC but we learned that the Civil Applications Committee (CAC) is an interagency committee that coordinates and oversees the Federal civil use of classified collections. Representatives from Polar Bear International (PBI) and Fairweather Science were on the phone. Much of the discussion was for the polar bear experts in the room to describe what we know about dens and the various techniques that have been used or attempted over the years for their detection. The next step is to provide Chris with known den locations and for him to then look at the images he has access to for him to see if he can detect those dens. There are a couple of known dens in Alaska from the industry surveys this year. PBI said they have access to collar data for 5 or 6 polar bears denning in Svalbard, Norway that may also be available for comparison to images.

At the end of the technical discussion, PBI and Fairweather hung up and it was only Christopher, Patrick and Chris in the room with Steve. With just the federal agencies there, Steve asked a few more questions about efforts we could undertake this year to gather more information. He said he expects an application for seismic to be received in the next couple of months and that a decision on that application will have to be made this summer/early fall. He questioned whether an EA with an associated FONSI could be appropriate and indicated that there would not be time to complete an EIS. We also talked about the combined benefit of updated habitat mapping, more collared bears and den surveys collectively helping us identify important denning habitat which could better focus the areas that would need to be surveyed annually and Steve mentioned this may help decide what areas of the 1002 are should be off limits.

Steve indicated he would like to have further discussions about the timing of the NEPA document, MMPA authorizations, ESA consultations and other required determinations and authorizations. This was a general statement and not a specific request. We did make it clear that we were just speaking from our program perspective and not the lead or action agency.

Thanks and please let us know if you have any questions. Also, Christopher and Patrick please feel free to correct or supplement as you see fit. I just wanted to get these notes to Karen and Greg ASAP.

Mary

--

Mary Colligan  
Assistant Regional Director  
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1011 E. Tudor Road, MS-361  
Anchorage, AK 99503  
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0000011748



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-08T11:57:57-05:00  
**Importance:** Normal  
**Subject:** Re: 1002 map  
**Received:** 2018-01-08T11:58:05-05:00  
1983 Chandler Lake Agreement Appendices.pdf

Hi Greg,

I agree with Jim and that was my take as well. I discussed it with Doug Campbell and he has a different interpretation due to the new legislation and the maps. His thinking is that because the maps may exclude the native allotments from the Coastal Plain "1002 Area" and since it is legislation, it would override the Chandler Lake land exchange agreement. The Chandler Lake agreement is very direct in stating that ASRC would be allowed exploratory drilling beneath the coastal plain once Congress "enacts legislation that permits exploratory drilling within the coastal plain or that permits production, of oil and gas from the coastal plain or the ASRC, or both." (Appendix 2, Section B, pg. 5) The intent of the agreement is very clear.

However, Doug may have a point regarding the definition of the Coastal Plain as it stands now and how that may impact ASRC's activities.

Let me know your thoughts.

Thanks so much!  
Amee

On Sun, Jan 7, 2018 at 7:52 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Hi Amee,

Could you look over the Chandalar lake agreement that Doug referred to last week when you have a chance? Jim Kurth believes the agreement speaks to the corporation lands within the coastal plain. When the remainder of the coastal plain was opened by congress the corporation lands were agreed to be open as well is his take. This seems to make sense to me given status as private lands.

Thank you,

Greg

Sent from my iPhone

--

*Amee Howard*

*Congressional and Legislative Affairs*

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Anchorage, Alaska

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Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**Cc:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Doug Damberg[doug\_damberg@fws.gov]  
**From:** Crane, Drew  
**Sent:** 2018-01-08T18:37:28-05:00  
**Importance:** Normal  
**Subject:** Re: Coastal Plain 1002 Interagency Interdisciplinary Team - Continue, Delay or Extend?  
**Received:** 2018-01-08T18:37:37-05:00

Hi Mary,

Your summary is correct. I still see utility in having the team pull together the requested data, but maybe not on such an abbreviated timeline if we are not sure what process BLM is undertaking or to what extent they are willing to participate in this effort.

Thanks,

Drew Crane  
Deputy Chief of Refuges, Acting  
Alaska Region  
U.S. Fish and Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503  
907-786-3323

On Mon, Jan 8, 2018 at 1:43 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg and Karen The Coastal Plain 1002 Interagency Interdisciplinary Team met this morning from 9-11. USGS informed the group that their open file report, *Summary of Wildlife Related Research on the Coastal Plain of the ANWR 2002 2017*, should be available to the group by the end of the week. This document will be a tremendous source reference as it identifies published literature, organized by species or subject area.

As we discussed, the specific ask of the Team at this time is to develop briefs on the state of knowledge by subject area.

We developed a template for them to populate which focuses on what information is needed to make informed decisions, what we know already and identifies key information gaps and actions that could be taken to fill those gaps. We asked that the templates be populated by 1/15 only a week from now.

The group was concerned about the timeline a week is not much time as many folks are just getting back to their offices after holidays. Also, they suggested that the first phase be focused on exploration understanding development, production and transportation should be addressed later.

Serena Sweet, BLM, was their primary spokesperson and she said that BLM is still in the decision phase and there is a lot of uncertainty as to the path forward. The indication was that they may have a different approach to compiling information and a different timeframe than what we presented to the group today.

I am working to set up an oversight team meeting this week, but the invite for BLM went to Karen and she has not responded and I understand is headed to DC with Greg. Mark Miller, NSSI, responded but would be speaking more for NSSI than BLM.

Clearly BLM is in the driver's seat and I am concerned that they may be busy in house figuring out next steps and not ready to engage in an interagency effort at this time. That is understandable. But, given that, I am wondering if we either tell the Interagency Interdisciplinary Team to stand down or at a minimum extend the deadline by 1 month.

I have copied Doug and Drew who should feel free to correct or add to what I have said. I appreciate your thoughts as I am concerned we have sent folks off on a quick timeline priority action when it appears now that may not be the best course of action.

0000011751

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

**To:** Karen Clark[karen\_clark@fws.gov]; Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**Cc:** Sara Boario[sara\_boario@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-08T18:39:22-05:00  
**Importance:** Normal  
**Subject:** Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP - Due COB today  
**Received:** 2018-01-08T18:39:25-05:00  
[Arctic NWR \(Feb 2018\) oil gas development DTD comments.docx](#)

Hi Karen and Greg,

HQ - Congressional and Legislative Affairs provided us with a short window to review the draft FY19 briefing paper for the Secretary. For the Service's FY19 Budget briefings, Region 7 only had one regarding Arctic Refuge and the 1002. The HQ team used our briefing paper from last year and updated it for FY19. Doug Damberg took a look and added a reference/reminder of the original refuge purposes in ANILCA.

Please take a look and let me know if you are comfortable with me sending our comments back to HQ, requested by COB today. It is one page, hopefully a quick review.

Note - the Final versions of all FY19 Budget Briefing Papers for the Secretary will be sent through DTS as one large package for surnaming later this week.

Thanks so much!  
Amee

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

**From:** **Damberg, Doug** <doug\_damberg@fws.gov>  
**Date:** Mon, Jan 8, 2018 at 2:13 PM  
**Subject:** Re: Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP for your review  
**To:** "Howard, Amee" <amee\_howard@fws.gov>  
**Cc:** Sara Boario <sara\_boario@fws.gov>, Drew Crane <drew\_crane@fws.gov>, Socheata Lor <socheata\_lor@fws.gov>, Mary Colligan <mary\_colligan@fws.gov>

Amee:

I made track changes additions to the final bullet under 'next steps' to help make sure awareness is maintained around our responsibility to the original four ANILCA purposes. I made a small deletion in section 3 so the document should stay at one page in length.

Thx,  
d

Doug Damberg  
Refuge Supervisor, AK North Zone  
U.S. Fish and Wildlife Service  
1011 E. Tudor Rd.; Anchorage, AK 99503

0000011753

Office: (907) 786-3329  
Cell: (907) 947-6302

On Fri, Jan 5, 2018 at 11:03 AM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi All,

Please see Devin's note below. It seems like this may not be uploaded to DTS just yet and we have an opportunity to review. It will be uploaded to DTS next week as part of a much larger package in the "Sensitive" database. In any case, have your teams take a look. The BP can only be one page, so let me know your suggestions. We can do all the edits here, get it cleared through the Regional Director and I can send it back to Devin at HQ to get it uploaded within the larger package for the final final surnaming. The HQ team worked from last year's Budget BP that we provided.

Please let me know if you have questions on the process.

Thanks so much!  
Amee

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

From: **Helfrich, Devin** <[devin\\_helfrich@fws.gov](mailto:devin_helfrich@fws.gov)>  
Date: Fri, Jan 5, 2018 at 10:37 AM  
Subject: Arctic NWR BP for your review  
To: Amee Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>

Hi Amee,

Here is the **Arctic NWR** briefing paper for the region's review per our telephone chat.

Please send back any edits directly to me in the attached Word Doc.

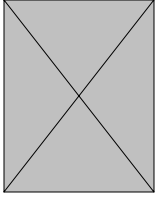
Deadline is **COB Monday** (Alaska Time).

Note: the BP must be **one page** in length, no exceptions.

Call me with any questions, thank you guys

Best,

**Devin Helfrich**  
Congressional Legislative Affairs Specialist  
U.S. Fish and Wildlife Service  
Office Direct: (703) 358-2130  
Mobile: (202) 365-5971



--

***Amee Howard***

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"Day in the Office"

--

***Amee Howard***

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"Day in the Office"

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**Cc:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Drew Crane[drew\_crane@fws.gov]  
**From:** Damberg, Doug  
**Sent:** 2018-01-08T18:39:22-05:00  
**Importance:** Normal  
**Subject:** Re: Coastal Plain 1002 Interagency Interdisciplinary Team - Continue, Delay or Extend?  
**Received:** 2018-01-08T18:39:29-05:00

Mary captured the main points well. I agree that we need to be on the same page as BLM if we are going to invest this effort. I would only add that there were questions about the ambiguity of the assignment including where it came from, the deadline, and the format - this could make it challenging to maximize engagement from other partner agencies.

Doug Damberg  
Refuge Supervisor, AK North Zone  
U.S. Fish and Wildlife Service  
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Office: (907) 786-3329  
Cell: (907) 947-6302

On Mon, Jan 8, 2018 at 1:43 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg and Karen The Coastal Plain 1002 Interagency Interdisciplinary Team met this morning from 9-11. USGS informed the group that their open file report, *Summary of Wildlife Related Research on the Coastal Plain of the ANWR 2002-2017*, should be available to the group by the end of the week. This document will be a tremendous source reference as it identifies published literature, organized by species or subject area.

As we discussed, the specific ask of the Team at this time is to develop briefs on the state of knowledge by subject area.

We developed a template for them to populate which focuses on what information is needed to make informed decisions, what we know already and identifies key information gaps and actions that could be taken to fill those gaps. We asked that the templates be populated by 1/15 only a week from now.

The group was concerned about the timeline a week is not much time as many folks are just getting back to their offices after holidays. Also, they suggested that the first phase be focused on exploration understanding development, production and transportation should be addressed later.

Serena Sweet, BLM, was their primary spokesperson and she said that BLM is still in the decision phase and there is a lot of uncertainty as to the path forward. The indication was that they may have a different approach to compiling information and a different timeframe than what we presented to the group today.

I am working to set up an oversight team meeting this week, but the invite for BLM went to Karen and she has not responded and I understand is headed to DC with Greg. Mark Miller, NSSI, responded but would be speaking more for NSSI than BLM.

Clearly BLM is in the driver's seat and I am concerned that they may be busy in house figuring out next steps and not ready to engage in an interagency effort at this time. That is understandable. But, given that, I am wondering if we either tell the Interagency Interdisciplinary Team to stand down or at a minimum extend the deadline by 1 month.

I have copied Doug and Drew who should feel free to correct or add to what I have said. I appreciate your thoughts as I am concerned we have sent folks off on a quick timeline priority action when it appears now that may not be the best course of action.

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

**To:** Karen Clark[karen\_clark@fws.gov]; Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**Cc:** Sara Boario[sara\_boario@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-08T19:24:39-05:00  
**Importance:** Normal  
**Subject:** Re: Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP - Due COB today  
**Received:** 2018-01-08T19:24:50-05:00  
[Arctic NWR \(Feb 2018\) oil gas development R7 comments.docx](#)

Hi All,

A few minor additions and edits to the FY19 Budget briefing paper on Arctic. Please disregard the earlier version.

Let me know your thoughts and edits.

Thanks so much!  
Amee

On Mon, Jan 8, 2018 at 2:39 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Karen and Greg,  
HQ - Congressional and Legislative Affairs provided us with a short window to review the draft FY19 briefing paper for the Secretary. For the Service's FY19 Budget briefings, Region 7 only had one regarding Arctic Refuge and the 1002. The HQ team used our briefing paper from last year and updated it for FY19. Doug Damberg took a look and added a reference/reminder of the original refuge purposes in ANILCA.

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Note - the Final versions of all FY19 Budget Briefing Papers for the Secretary will be sent through DTS as one large package for surnaming later this week.

Thanks so much!  
Amee

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**From:** **Damberg, Doug** <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>  
**Date:** Mon, Jan 8, 2018 at 2:13 PM  
**Subject:** Re: Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP for your review  
**To:** "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>  
**Cc:** Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Amee:

I made track changes additions to the final bullet under 'next steps' to help make sure awareness is maintained around our responsibility to the original four ANILCA purposes. I made a small deletion in section 3 so the document should stay at one page in length.

Thx,  
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, Jan 5, 2018 at 11:03 AM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi All,

Please see Devin's note below. It seems like this may not be uploaded to DTS just yet and we have an opportunity to review. It will be uploaded to DTS next week as part of a much larger package in the "Sensitive" database. In any case, have your teams take a look. The BP can only be one page, so let me know your suggestions. We can do all the edits here, get it cleared through the Regional Director and I can send it back to Devin at HQ to get it uploaded within the larger package for the final final surnaming. The HQ team worked from last year's Budget BP that we provided.

Please let me know if you have questions on the process.

Thanks so much!  
Amee

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From: **Helfrich, Devin** <[devin\\_helfrich@fws.gov](mailto:devin_helfrich@fws.gov)>

Date: Fri, Jan 5, 2018 at 10:37 AM

Subject: Arctic NWR BP for your review

To: Amee Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>

Hi Amee,

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Please send back any edits directly to me in the attached Word Doc.

Deadline is **COB Monday** (Alaska Time).

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0000011759

Call me with any questions, thank you guys

Best,

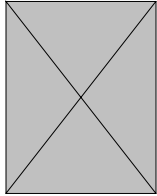
**Devin Helfrich**

Congressional Legislative Affairs Specialist

U.S. Fish and Wildlife Service

Office Direct: (703) 358-2130

Mobile: (202) 365-5971



--

***Amee Howard***

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

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"Day in the Office"

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**To:** Howard, Amee[amee\_howard@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**From:** Boario, Sara  
**Sent:** 2018-01-08T19:40:43-05:00  
**Importance:** Normal  
**Subject:** Re: Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP - Due COB today  
**Received:** 2018-01-08T19:40:48-05:00

I have a few more edits I'll walk over to you. thanks amee.

sb

On Mon, Jan 8, 2018 at 3:24 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

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Cc: Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

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Date: Fri, Jan 5, 2018 at 10:37 AM

Subject: Arctic NWR BP for your review

To: Amee Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>

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0000011763

Deadline is **COB Monday** (Alaska Time).

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Call me with any questions, thank you guys

Best,

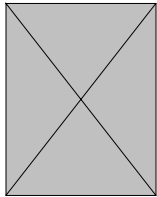
**Devin Helfrich**

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--

***Amee Howard***

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Sara D. Boario

Assistant Regional Director External Affairs

U.S. Fish and Wildlife Service, Alaska Region

Anchorage, Alaska

907 786 3431



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-08T20:36:26-05:00  
**Importance:** Normal  
**Subject:** Re: Review Requested - FY19 Budget Briefing Paper for Secretary- Arctic NWR BP - Due COB today  
**Received:** 2018-01-08T20:36:33-05:00  
[Arctic NWR \(Feb 2018\) oil gas development R7 comments v.2.docx](#)

Hi Karen and Greg,  
Here is the updated version. Let me know if we have hit the right balance.

Thanks so much!  
Amee

On Mon, Jan 8, 2018 at 3:34 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Amee,  
I think we should recognize the new purpose and then bring in the idea of the other four guiding the process as well.

Greg

Sent from my iPhone

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Subject: Arctic NWR BP for your review  
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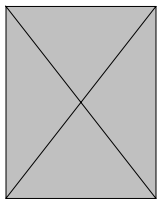
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**Devin Helfrich**  
Congressional Legislative Affairs Specialist  
U.S. Fish and Wildlife Service  
Office Direct: (703) 358-2130  
Mobile: (202) 365-5971



--

**Amee Howard**  
*Congressional and Legislative Affairs*

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<Arctic NWR (Feb 2018) oil gas development R7 comments.docx>

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**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Ted Murphy[t75murph@blm.gov]; Karen Mouritsen[kmourits@blm.gov]  
**From:** Wackowski, Stephen  
**Sent:** 2018-01-08T20:40:53-05:00  
**Importance:** Normal  
**Subject:** PCH  
**Received:** 2018-01-08T20:41:00-05:00

Sending to OS for consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

0000011770

**To:** Helfrich, Devin[devin\_helfrich@fws.gov]  
**Cc:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]; Drew Crane[drew\_crane@fws.gov]; Damberg, Doug[doug\_damberg@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-08T21:16:01-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic NWR BP for your review  
**Received:** 2018-01-08T21:16:06-05:00  
[Arctic NWR \(Feb 2018\) oil gas development R7 comments Final.docx](#)  
[Arctic NWR \(Feb 2018\) oil gas development R7 comments track changes.docx](#)

Hi Devin,

Attached are the Region 7 recommended edits for the Arctic NWR oil gas development briefing paper. I have attached a clean final version with our edits incorporated and I have also attached a track changes version with consolidated edits showing.

Let me know if you have any questions or need anything else from the R7 team on this one.

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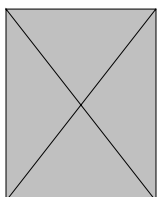
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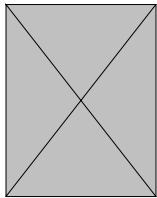


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**From:** Helfrich, Devin  
**Sent:** 2018-01-08T22:03:38-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic NWR BP for your review  
**Received:** 2018-01-08T22:04:01-05:00

Received Ameer and all, thank you guys!

Devin Helfrich

Congressional Legislative Affairs Specialist  
U.S. Fish and Wildlife Service  
Office Direct: (703) 358-2130  
Mobile: (202) 365-5971



On Mon, Jan 8, 2018 at 9:16 PM, Howard, Ameer <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

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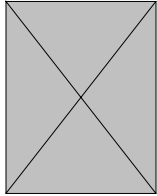
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**To:** karen\_clark@fws.gov[karen\_clark@fws.gov];  
amee\_howard@fws.gov[amee\_howard@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-09T09:42:55-05:00  
**Importance:** Normal  
**Subject:** Fwd: Surname Requested: Briefing Papers for Secretary's FY 19 Budget Hearings  
**Received:** 2018-01-09T09:43:02-05:00  
[ATT00001.htm](#)  
[Note to Reviewers - FY 2019 Sec Budget Hearings.doc](#)

FYI  
Sent from my iPhone

Begin forwarded message:

**From:** "Wainman, Barbara" <[barbara\\_wainman@fws.gov](mailto:barbara_wainman@fws.gov)>  
**Date:** January 9, 2018 at 5:19:40 AM AKST  
**To:** FWS Assistant Directors <[fws\\_assistant\\_directors@fws.gov](mailto:fws_assistant_directors@fws.gov)>, Robyn Thorson <[robyn\\_thorson@fws.gov](mailto:robyn_thorson@fws.gov)>, Amy Lueders <[amy\\_lueders@fws.gov](mailto:amy_lueders@fws.gov)>, "Melius, Tom" <[tom\\_melius@fws.gov](mailto:tom_melius@fws.gov)>, Michael Oetker <[michael\\_oetker@fws.gov](mailto:michael_oetker@fws.gov)>, "Weber, Wendi" <[wendi\\_weber@fws.gov](mailto:wendi_weber@fws.gov)>, Noreen Walsh <[Noreen\\_Walsh@fws.gov](mailto:Noreen_Walsh@fws.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Subject: Surname Requested: Briefing Papers for Secretary's FY 19 Budget Hearings**

We are starting to prepare for the Secretary's FY 2019 budget hearings and we were asked by the Department to provide briefing papers on topics that may be of interest to Members on House Natural Resources, Senate Energy and Natural Resources, and House and Senate Appropriations Committees.

CLA and Division of Budget have been coordinating on this request, and we've also been working closely with many of you and your staff to develop briefing papers. Please review and surname for your programs/regions by **COB Thursday1 January 10**. The briefing papers are in the sensitive database in DTS SEN006714. Since multiple programs/regions will be reviewing briefing papers at the same time, please send any edits to Angela Gustavson ([angela\\_gustavson@fws.gov](mailto:angela_gustavson@fws.gov)).

The attached Note to Reviewers includes a table that indicates which briefing papers your program or region should review/surname. Also, please note that the Department requested that briefing papers be limited to one page.

Thanks in advance for your help.

Barbara W. Wainman  
Assistant Director, External Affairs  
US Fish and Wildlife Service  
(202) 208 5256 (office)  
(571) 471 4159 (cell)

0000011775

**To:** Arthur, Stephen[stephen\_arthur@fws.gov]  
**Cc:** Steve Berendzen[steve\_berendzen@fws.gov]; drew\_crane@fws.gov[drew\_crane@fws.gov]; Joanna Fox[joanna\_fox@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-09T14:23:02-05:00  
**Importance:** Normal  
**Subject:** Re: Porcupine Caribou Herd Management and investigations.  
**Received:** 2018-01-09T14:23:12-05:00

Steve,

Thank you for the quick response. Our special assistant to the Secretary for Alaska has the impression that the Department of Fish and Game does all the caribou work. This will help with discussions.

Best,

Greg

Sent from my iPhone

On Jan 9, 2018, at 10:04 AM, Arthur, Stephen <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)> wrote:

Steve, Greg, et al,

The Arctic Refuge has been involved with monitoring the Porcupine Herd since the Arctic Range was first created. More specifically, since formal monitoring of the herd began in the late 1970s, the Refuge has been heavily involved in the radiocollaring and radiotracking studies, that have now transitioned primarily to satellite-linked GPS collars. During the 1002 studies of the 1980s, Refuge staff participated in studies that assessed calf production and survival rates, and identified causes of mortality, and contributed to the original modeling efforts that established the methods used to delineate calving ranges (led by the AK Science Center, which at the time was part of FWS). In the recent past (last 10 years or so) the Refuge has contributed funds to pay for the satellite radiotracking data, conducted aerial radiotracking flights about 3-4 times per year to assess survival rates and seasonal range use, assisted with locating caribou during photocensuses, and provided logistical support for calving surveys and capture efforts conducted by ADF&G and YTG staff. At least one Refuge biologist participates on the PCH Technical Committee; both Hollis and I attended the last meeting in March 2017. This is normally the responsibility of the Refuge ungulate biologist; since that position has been vacant I have been filling in. We are not currently conducting habitat studies. The main emphasis of the collaborating agencies has been on estimating survival, reproduction, and seasonal range use. The YTG does collect data on snow depth across the Yukon, which is used for estimating winter severity on the the winter range, and is also monitoring proposals for seismic exploration on part of the Yukon winter range. The YTG also collects data on harvest (subsistence and sport harvest) in Canada, where most of the harvest occurs. ADF&G monitors non-subsistence harvest in AK, and we contribute info. to that

effort. Monitoring subsistence harvest in AK has been difficult. Hollis was working on a proposal for FWS funding to support a cooperative effort with the villages of Kaktovik, Arctic Village, Venatie, and Ft. Yukon to formalize a procedure for collecting subsistence harvest data, but I believe that proposal was rejected early last year.

Let me know if you'd like more detail on any of this.

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 Mon, Jan 8, 2018 at 10:20 PM, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)> wrote:

Greg, yes we contribute to caribou surveys & studies; I'm not sure about habitat monitoring; I'm sure we've been involved in harvest surveys in the past not sure how recently; & we have traditionally had a biologist on the technical committee- that position is currently vacant, & I'm not aware that the technical committee has been meeting in the last year or so. I'll ask Joanna or Steve Arthur to clarify or correct anything I might have misrepresented

Sent from my iPhone

> On Jan 8, 2018, at 8:52 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:  
>  
> Steve,  
>  
> Do we contribute to the State Fish and Game monitoring and/or investigations concerning the Porcupine Herd? Do we do any habitat monitoring? Subsistence harvest monitoring? Have a place on the technical committee for the international agreement with Canada?  
>  
> Thanks,  
>  
> Greg  
>  
> Sent from my iPhone

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Devaris, Aimee  
**Sent:** 2018-01-09T15:00:00-05:00  
**Importance:** Normal  
**Subject:** Fwd: polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen Wackowski  
**Received:** 2018-01-09T15:00:19-05:00  
[polarbear maternal denning habitat in the ANWR1002 area 08Jan18.png](#)  
[polarbear maternal denning habitat in the ANWR1002 area to KML 09Jan18.kmz](#)

Sending to USGS for consultation



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

**From:** Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** Tue, Jan 9, 2018 at 10:53 AM  
**Subject:** Fwd: polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen Wackowski  
**To:** Stephen Wackowski <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Cc:** Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

Sending to USGS for consultation

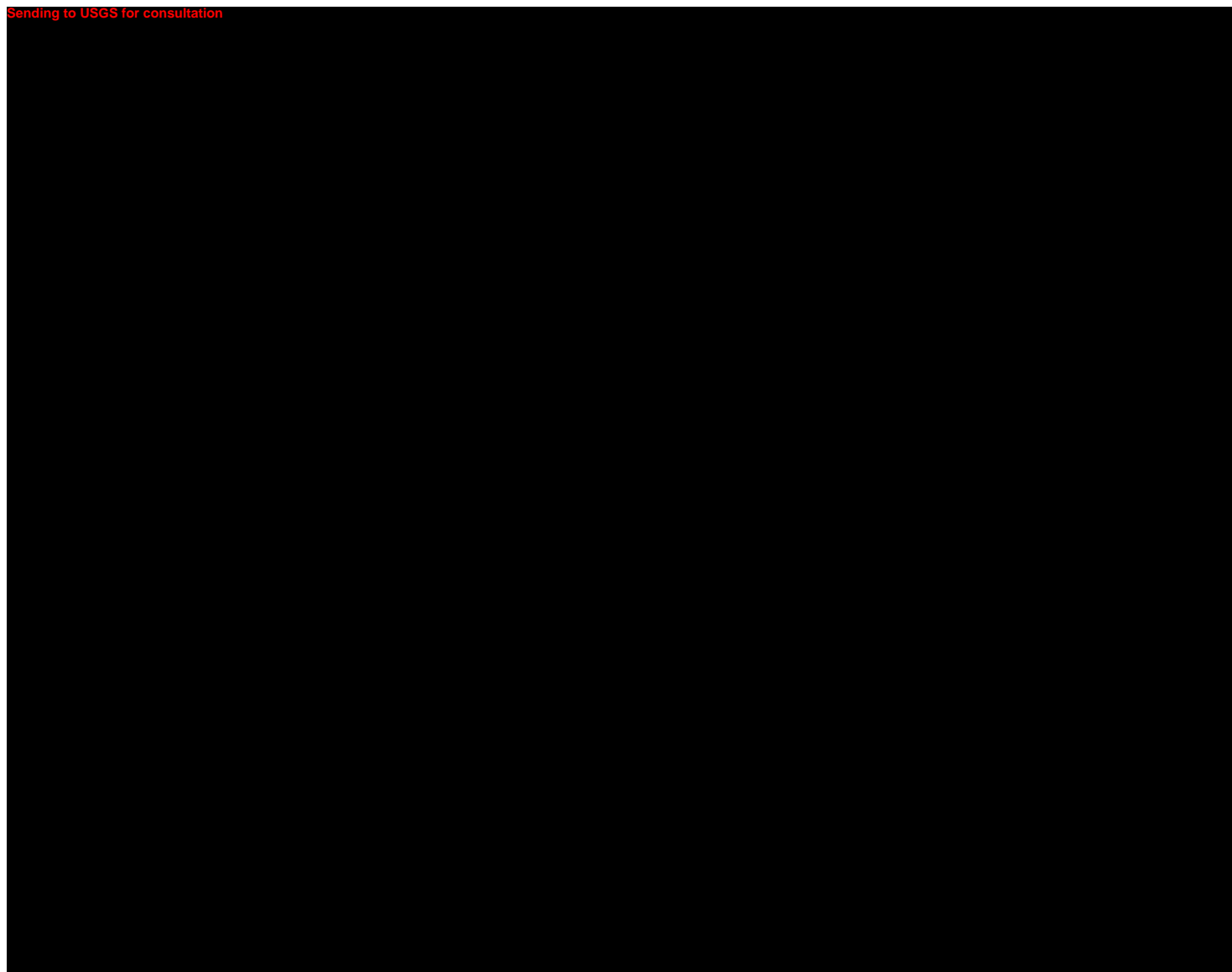


----- Forwarded message -----

**From:** Durner, George <[gdurner@usgs.gov](mailto:gdurner@usgs.gov)>  
**Date:** Tue, Jan 9, 2018 at 10:09 AM  
**Subject:** polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen Wackowski  
**To:** Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>  
**Cc:** Todd Atwood <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>

Sending to USGS for consultation





--

George Durner, Research Zoologist  
US Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508

PH: 907-786-7082

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive

Anchorage, Alaska  
907-786-7055

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055



**To:** Devaris, Aimee[adevaris@usgs.gov]  
**Cc:** mary\_colligan@fws.gov[mary\_colligan@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-09T16:05:46-05:00  
**Importance:** Normal  
**Subject:** Re: polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen Wackowski  
**Received:** 2018-01-09T16:05:55-05:00

Thanks Aimee. A lot of conversations are happening and not in a coordinated manner. Mary Colligan will be reaching out to you to discuss how we might be better at keeping folks in the loop of what all is going on. Science, technical, planning, legal, executive, department, three agencies, and our interested constituents are all having varying degrees of communications. I believe we need an executive/sr. management group for consistent communications on the variety of issues that are coming up.

The next couple of days should be interesting in the sept. I hope to catch up with Bill while I'm in MIB.

Best,

Greg

Sent from my iPhone

On Jan 9, 2018, at 12:00 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

Sending to USGS for consultation



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

**From:** Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>

**Date:** Tue, Jan 9, 2018 at 10:53 AM

**Subject:** Fwd: polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen Wackowski

**To:** Stephen Wackowski <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>

**Cc:** Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

Sending to USGS for consultation



Regards,  
Aimee

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

From: **Durner, George** <[gdurner@usgs.gov](mailto:gdurner@usgs.gov)>

Date: Tue, Jan 9, 2018 at 10:09 AM

Subject: polar bear maternal denning habitat in the ANWR 1002 area: data for Stephen  
Wackowski

To: Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>

Cc: Todd Atwood <[tatwood@usgs.gov](mailto:tatwood@usgs.gov)>

Sending to USGS for consultation



0000011782

--

George Durner, Research Zoologist  
US Geological Survey, Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508

PH: 907-786-7082

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

<polarbear\_maternal\_denning\_habitat in\_the\_ANWR1002\_area\_08Jan18.png>

<polarbear\_maternal\_denning\_habitat  
in\_the\_ANWR1002\_area\_to\_KML\_09Jan18.kmz>

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Berendzen, Steve  
**Sent:** 2018-01-09T16:35:53-05:00  
**Importance:** Normal  
**Subject:** Re: Porcupine Caribou Herd Management and investigations.  
**Received:** 2018-01-09T16:36:57-05:00

No problem, Greg - I check it before going to bed. Hope it didn't wake you when it went through to you :)

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

On Tue, Jan 9, 2018 at 12:28 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Steve,  
Thank you for the reply. I should have noted that there was no need to reply until the next day. My apology. Not much warrants immediate late evening replies. I much prefer people have a life outside of work that is free of the quirks of DC that seems to be becoming a 24-7 world.

Greg

Sent from my iPhone

On Jan 8, 2018, at 11:20 PM, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)> wrote:

Greg, yes we contribute to caribou surveys & studies; I'm not sure about habitat monitoring; I'm sure we've been involved in harvest surveys in the past not sure how recently; & we have traditionally had a biologist on the technical committee- that position is currently vacant, & I'm not aware that the technical committee has been meeting in the last year or so. I'll ask Joanna or Steve Arthur to clarify or correct anything I might have misrepresented

Sent from my iPhone

On Jan 8, 2018, at 8:52 PM, Greg Siekaniec  
<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Steve,

Do we contribute to the State Fish and Game monitoring and/or

investigations concerning the Porcupine Herd? Do we do any habitat monitoring? Subsistence harvest monitoring? Have a place on the technical committee for the international agreement with Canada?

Thanks,

Greg

Sent from my iPhone

**To:** Clark, Karen[karen\_clark@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-09T21:28:40-05:00  
**Importance:** Normal  
**Subject:** Re: Porcupine Caribou Herd Management and investigations (Arctic 1002)  
**Received:** 2018-01-09T21:28:45-05:00

Thanks Karen,  
Sorry, I did not note who he sent the email to that initiated my question to Arctic Refuge.  
I plan to dis USA with Steve when I see him here in DC.

Greg

Sent from my iPhone

On Jan 9, 2018, at 5:50 PM, Clark, Karen <karen\_clark@fws.gov> wrote:

Looks like we were both looking into the question- I should have copied you on my email to Doug yesterday after Steve W's email. Thought Doug's email here might be useful if you are planning to respond to Steve. If you'd like me to do anything from this end, just let me know!

Thanks, Karen

Karen P. Clark  
Deputy Regional Director  
U.S. Fish & Wildlife Service- Alaska Region  
1011 E Tudor Rd, MS 374  
Anchorage, AK 99503  
[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)  
907.786.3542 office  
907.786.3493 direct  
907.786.3306 fax

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

**From:** **Damberg, Doug** <doug\_damberg@fws.gov>  
**Date:** Tue, Jan 9, 2018 at 1:42 PM  
**Subject:** Fwd: Porcupine Caribou Herd Management and investigations (Arctic 1002)  
**To:** Karen Clark <karen\_clark@fws.gov>

Hey Karen:

It looks like a second email string was started up by Greg on the same topic. I contacted Steve Arthur for additional information and he forwarded (below) what he wrote up.

0000011786

The only thing I might add to what Steve wrote up (it's always worth mentioning) is that vacancies (i.e. reduction in funding) and additional new workload affect our capacity to do on-the-ground work with the PCH and other important resources on the refuge. Partnerships with the State and Canada, including the IPCB and TC, are a big help in ensuring that some level of work continues.

You asked about Bruce Dale as one of the members of the Int'l Porcupine Caribou Board (and Mitch as one of the co-leads): some of the information provided in the bulletin would have come from, or been produced in association with, the Technical Committee which is associated with the IPCB.

I think Steve has captured a lot of what you were looking for but please let me know if you want more details.

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

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

From: **Arthur, Stephen** <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>  
Date: Tue, Jan 9, 2018 at 10:37 AM  
Subject: Fwd: Porcupine Caribou Herd Management and investigations.  
To: Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Doug,  
I see you were not on the address list for this email train, but this might answer some of your 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

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

From: **Arthur, Stephen** <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>  
Date: Tue, Jan 9, 2018 at 9:04 AM  
Subject: Re: Porcupine Caribou Herd Management and investigations.  
To: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

Cc: Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "drew\_crane@fws.gov" <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

Steve, Greg, et al,

The Arctic Refuge has been involved with monitoring the Porcupine Herd since the Arctic Range was first created. More specifically, since formal monitoring of the herd began in the late 1970s, the Refuge has been heavily involved in the radiocollaring and radiotracking studies, that have now transitioned primarily to satellite-linked GPS collars. During the 1002 studies of the 1980s, Refuge staff participated in studies that assessed calf production and survival rates, and identified causes of mortality, and contributed to the original modeling efforts that established the methods used to delineate calving ranges (led by the AK Science Center, which at the time was part of FWS). In the recent past (last 10 years or so) the Refuge has contributed funds to pay for the satellite radiotracking data, conducted aerial radiotracking flights about 3-4 times per year to assess survival rates and seasonal range use, assisted with locating caribou during photocensuses, and provided logistical support for calving surveys and capture efforts conducted by ADF&G and YTG staff. At least one Refuge biologist participates on the PCH Technical Committee; both Hollis and I attended the last meeting in March 2017. This is normally the responsibility of the Refuge ungulate biologist; since that position has been vacant I have been filling in. We are not currently conducting habitat studies. The main emphasis of the collaborating agencies has been on estimating survival, reproduction, and seasonal range use. The YTG does collect data on snow depth across the Yukon, which is used for estimating winter severity on the the winter range, and is also monitoring proposals for seismic exploration on part of the Yukon winter range. The YTG also collects data on harvest (subsistence and sport harvest) in Canada, where most of the harvest occurs. ADF&G monitors non-subsistence harvest in AK, and we contribute info. to that effort. Monitoring subsistence harvest in AK has been difficult. Hollis was working on a proposal for FWS funding to support a cooperative effort with the villages of Kaktovik, Arctic Village, Venatie, and Ft. Yukon to formalize a procedure for collecting subsistence harvest data, but I believe that proposal was rejected early last year.

Let me know if you'd like more detail on any of this.

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 Mon, Jan 8, 2018 at 10:20 PM, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)> wrote:

0000011788



Greg, yes we contribute to caribou surveys & studies; I'm not sure about habitat monitoring; I'm sure we've been involved in harvest surveys in the past not sure how recently; & we have traditionally had a biologist on the technical committee- that position is currently vacant, & I'm not aware that the technical committee has been meeting in the last year or so. I'll ask Joanna or Steve Arthur to clarify or correct anything I might have misrepresented

Sent from my iPhone

- > On Jan 8, 2018, at 8:52 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:
- >
- > Steve,
- >
- > Do we contribute to the State Fish and Game monitoring and/or investigations concerning the Porcupine Herd? Do we do any habitat monitoring? Subsistence harvest monitoring? Have a place on the technical committee for the international agreement with Canada?
- >
- > Thanks,
- >
- > Greg
- >
- > Sent from my iPhone

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Mellinger, Larry  
**Sent:** 2018-01-10T06:58:35-05:00  
**Importance:** Normal  
**Subject:** Re: ANWR  
**Received:** 2018-01-10T06:58:37-05:00

Greg:  
I will be working out of my Office in Baltimore the rest of this week.

Please feel free to give me a call at your convenience at 410-252-5442.

Thanks.

Larry

On Tue, Jan 9, 2018 at 9:25 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Good evening Larry,  
I would very much like to discuss with you how we might move through establishing an oil and gas program for Arctic NWR.

I'm in town (DC) for a couple days and would welcome a few minutes to discuss.

I'll be at the Secretary's meeting tomorrow and Thursday morning.

Perhaps during a break or at lunch?

Greg

Sent from my iPhone

On Jan 9, 2018, at 8:47 PM, Mellinger, Larry <[larry.mellinger@sol.doi.gov](mailto:larry.mellinger@sol.doi.gov)> wrote:

Greg:  
Happy New Year! I hope you are doing well.

(b) (5) ACP  
[Redacted text block]

[Redacted text block]

(b) (5) ACP

If you have a small window of availability sometime this week for a brief telephone conversation, I think it would be helpful in going forward with the discussions I am having with my legal colleagues.

Thanks.

Larry

--

Lawrence P. Mellinger  
Attorney-Advisor  
Division of Parks and Wildlife  
Office of the Solicitor  
U.S. Department of the Interior  
410-252-5442  
202-208-3062

--

Lawrence P. Mellinger  
Attorney-Advisor  
Division of Parks and Wildlife  
Office of the Solicitor  
U.S. Department of the Interior  
410-252-5442  
202-208-3062

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Clark, Karen  
**Sent:** 2018-01-10T19:49:05-05:00  
**Importance:** Normal  
**Subject:** Fwd: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
**Received:** 2018-01-10T19:49:47-05:00  
[OMB comments for FWS on Q2 FY2018 quarterly report.docx](#)

Do you know anything on the status of this? I haven't seen this table before, so thought I would confirm with you.

Here is the part of the table for Arctic:

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Karen P. Clark  
Deputy Regional Director  
U.S. Fish & Wildlife Service- Alaska Region  
1011 E Tudor Rd, MS 374  
Anchorage, AK 99503  
[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)  
907.786.3542 office  
907.786.3493 direct  
907.786.3306 fax

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

From: **Morris, Charisa** <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
Date: Wed, Jan 10, 2018 at 3:32 PM  
Subject: Fwd: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
To: Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>  
Cc: Cynthia Martinez <[Cynthia\\_Martinez@fws.gov](mailto:Cynthia_Martinez@fws.gov)>, Shaun Sanchez <[shaun\\_sanchez@fws.gov](mailto:shaun_sanchez@fws.gov)>, Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Zachariah Gambill <[zachariah\\_gambill@fws.gov](mailto:zachariah_gambill@fws.gov)>, Kashyap Patel <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)>

FYI - I connected with Megan Apgar today, and SOI would like to know the status/location of the ANWR rule, in addition to the questions that are in the table. Last I heard, it may be with Dan Jorjani, but those on this thread know more than me.

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

From: **Craghead, Anissa** <[anissa\\_craghead@fws.gov](mailto:anissa_craghead@fws.gov)>  
Date: Tue, Jan 9, 2018 at 7:06 AM  
Subject: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
To: Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
Cc: Susan Wilkinson <[susan\\_wilkinson@fws.gov](mailto:susan_wilkinson@fws.gov)>, Katherine Garrity <[katherine\\_garrity@fws.gov](mailto:katherine_garrity@fws.gov)>

Good morning, Jim and Charisa.

Exec Sec provided FWS with OMB's comments on FWS actions on the January to March 90 day list. One of the rulemaking actions they want more information on is 1018 BC92, the ANWR action. (It's the last entry in the attachment.) We are to provide responses to Exec Sec using the attached template by Thursday, 1/11.

OMB's exact questions about this action are in the attachment. I don't know how you want to handle this if you'd like to speak directly to Megan Apgar, or if you'd like to include a response in the attachment. Please let me and Susan Wilkinson know.

Thanks,

Anissa

0000011793

*Anissa Craghead*  
*Senior Management Analyst, Division of Policy, Performance, and Management Programs*  
*U.S. Fish and Wildlife Service*  
*5275 Leesburg Pike, MS: BPHC*  
*Falls Church, VA 22041-3803*  
*Telephone: 703-358-2445*

--

**Charisa Morris@fws.gov** | Chief of Staff, Office of the Director | U.S. Fish & Wildlife  
Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters,  
please dial cell: 301-875-8937

**To:** Clark, Karen[karen\_clark@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-10T20:23:51-05:00  
**Importance:** Normal  
**Subject:** Re: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
**Received:** 2018-01-10T20:23:55-05:00

I do not know. Our EA is on hold. I asked Kurth and he was uncertain how to think about this. Perhaps I find out something tomorrow.

Sent from my iPhone

On Jan 10, 2018, at 7:49 PM, Clark, Karen <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)> wrote:

Do you know anything on the status of this? I haven't seen this table before, so thought I would confirm with you.  
Here is the part of the table for Arctic:

Sending to OMB for consultation



Sending to OMB for consultation

Karen P. Clark  
Deputy Regional Director  
U.S. Fish & Wildlife Service- Alaska Region  
1011 E Tudor Rd, MS 374  
Anchorage, AK 99503  
[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)  
907.786.3542 office  
907.786.3493 direct  
907.786.3306 fax

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

From: **Morris, Charisa** <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
Date: Wed, Jan 10, 2018 at 3:32 PM  
Subject: Fwd: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
To: Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>  
Cc: Cynthia\_Martinez <[Cynthia\\_Martinez@fws.gov](mailto:Cynthia_Martinez@fws.gov)>, Shaun Sanchez <[shaun\\_sanchez@fws.gov](mailto:shaun_sanchez@fws.gov)>, Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Zachariah Gambill <[zachariah\\_gambill@fws.gov](mailto:zachariah_gambill@fws.gov)>, Kashyap Patel <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)>

FYI - I connected with Megan Apgar today, and SOI would like to know the status/location of the ANWR rule, in addition to the questions that are in the table. Last I heard, it may be with Dan Jorjani, but those on this thread know more than me.

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

From: **Craghead, Anissa** <[anissa\\_craghead@fws.gov](mailto:anissa_craghead@fws.gov)>  
Date: Tue, Jan 9, 2018 at 7:06 AM  
Subject: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
To: Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
Cc: Susan Wilkinson <[susan\\_wilkinson@fws.gov](mailto:susan_wilkinson@fws.gov)>, Katherine Garrity <[katherine\\_garrity@fws.gov](mailto:katherine_garrity@fws.gov)>

Good morning, Jim and Charisa.  
Exec Sec provided FWS with OMB's comments on FWS actions on the January to March 90 day list.  
One of the rulemaking actions they want more information on is 1018 BC92, the ANWR action. (It's the

0000011796



last entry in the attachment.) We are to provide responses to Exec Sec using the attached template by Thursday, 1/11.

OMB's exact questions about this action are in the attachment. I don't know how you want to handle this if you'd like to speak directly to Megan Apgar, or if you'd like to include a response in the attachment. Please let me and Susan Wilkinson know.

Thanks,

Anissa

*Anissa Craghead  
Senior Management Analyst, Division of Policy, Performance, and Management Programs  
U.S. Fish and Wildlife Service  
5275 Leesburg Pike, MS: BPHC  
Falls Church, VA 22041-3803  
Telephone: 703-358-2445*

--

Charisa Morris@fws.gov | Chief of Staff, Office of the Director | U.S. Fish &  
Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 |  
For urgent matters, please dial cell: 301-875-8937

<OMB comments for FWS on Q2 FY2018 quarterly report.docx>

**To:** karen\_clark@fws.gov[karen\_clark@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-10T21:36:51-05:00  
**Importance:** Normal  
**Subject:** Fwd: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
**Received:** 2018-01-10T21:36:52-05:00

FYI

Sent from my iPhone

Begin forwarded message:

**From:** Jim Kurth <jim\_kurth@fws.gov>  
**Date:** January 10, 2018 at 9:29:34 PM EST  
**To:** "Craghead, Anissa" <anissa\_craghead@fws.gov>  
**Cc:** Charisa Morris <charisa\_morris@fws.gov>, Susan Wilkinson <susan\_wilkinson@fws.gov>, Katherine Garrity <katherine\_garrity@fws.gov>, Gregory Siekaniec <greg\_siekaniec@fws.gov>  
**Subject:** **Re: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List**

Congress approved industrial development of oil and gas resources in the coastal plain of the Arctic National Wildlife Refuge in the recent tax legislation. The development of this rule is on hold, and likely unnecessary, as the Department considers how to implement the direction provided in the legislation.

Sent from my iPad

On Jan 9, 2018, at 7:06 AM, Craghead, Anissa <anissa\_craghead@fws.gov> wrote:

Good morning, Jim and Charisa.  
Exec Sec provided FWS with OMB's comments on FWS actions on the January to March 90 day list.  
One of the rulemaking actions they want more information on is 1018 BC92, the ANWR action. (It's the last entry in the attachment.) We are to provide responses to Exec Sec using the attached template by Thursday, 1/11.

OMB's exact questions about this action are in the attachment. I don't know how you want to handle this if you'd like to speak directly to Megan Apgar, or if you'd like to include a response in the attachment.

Please let me and Susan Wilkinson know.

Thanks,

Anissa

0000011798

*I'm Anissa Craghead  
Senior Management Analyst, Division of Policy, Performance, and Management  
Programs  
U.S. Fish and Wildlife Service  
5275 Leesburg Pike, MS: BPHC  
Falls Church, VA 22041-3803  
Telephone: 703-358-2445*

<OMB comments for FWS on Q2 FY2018 quarterly report.docx>

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-11T15:21:39-05:00  
**Importance:** Normal  
**Subject:** Steve Wackowski FYI  
**Received:** 2018-01-11T15:21:46-05:00

Greg Just wanted to let you know that Steve was apparently in our office earlier today and stopped by to chat with Christopher. He was asking about the status of the FLIR contract but again stating he recognizes he has to recuse himself. Christopher told him the plan was for it to be advertised yesterday and we are still working towards a start work date of early Feb. One thing I just wanted to make sure you are aware of is that Steve said he may want to get some DOI officials on the planes. We did not specify that the selected aircraft has to be OAS certified as we do not intend to place any of our folks on the planes. I am not inclined to pull the notice back to specify that the planes need to be OAS certified as we are trying to move forward as quickly as possible and maximize the chances of getting this work done this year.

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

**To:** Bud Cribley[bud\_cribley@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-11T16:01:32-05:00  
**Importance:** Normal  
**Subject:** Fwd: ANWR  
**Received:** 2018-01-11T16:01:39-05:00

FYI  
Sent from my iPhone

Begin forwarded message:

**From:** "Mellinger, Larry" <larry.mellinger@sol.doi.gov>  
**Date:** January 9, 2018 at 8:47:26 PM EST  
**To:** Greg Siekaniec <greg\_siekaniec@fws.gov>  
**Subject:** ANWR

Greg:  
Happy New Year! I hope you are doing well.

(b) (5) ACP  
[Redacted text block containing multiple lines of blacked-out content]

If you have a small window of availability sometime this week for a brief telephone conversation, I think it would be helpful in going forward with the discussions I am having with my legal colleagues.

Thanks.

Larry

--  
Lawrence P. Mellinger  
Attorney-Advisor  
Division of Parks and Wildlife  
Office of the Solicitor

U.S. Department of the Interior  
410-252-5442  
202-208-3062

**To:** Bud Cribley[bud\_cribley@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-11T17:35:40-05:00  
**Importance:** Normal  
**Subject:** Fwd: Polar Bear Needs - Details  
**Received:** 2018-01-11T17:35:48-05:00  
[mime-attachment.html](#)  
[ATT00001.htm](#)  
[Polar Bear Study Ideas for 1002 - 180104 v3.docx](#)  
[ATT00002.htm](#)  
[mime-attachment.html](#)  
[ATT00003.htm](#)

FYI on the polar bear thinking and some early coating estimates. Please do not forward as this is still in Directors office.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** January 11, 2018 at 3:40:43 PM EST  
**To:** Greg Sheehan <[greg\\_j\\_sheehan@fws.gov](mailto:greg_j_sheehan@fws.gov)>  
**Cc:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Fwd: Polar Bear Needs - Details

Greg sent this draft in for our information. This explains cost for polar bear work in 1002 area. I believe Jason is expecting to get it after your review.

Sent from my iPhone

Begin forwarded message:

**From:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Date:** January 7, 2018 at 11:03:37 PM EST  
**To:** [jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)  
**Subject:** Fwd: Polar Bear Needs - Details

Jim,

The attached is our version of identifying the type of work that is needed to address polar bear considerations for the recent Arctic NWR oils and gas purpose. This is primarily to satisfy ESA species and critical habitat concerns as well as Marine Mammal Protection Act requirements. This is the type of effort we will need to put into

0000011803

polar bears that will support the seismic, surface exploration, lease sale planning, and eventual permitting.

This is not a one time and done effort. Thus, the recognition of recurring financial needs. We worked with USGS to develop this but I'm now getting feedback from Alaska USGS RD that she doesn't think their part is as demanding financially. I do not know how BLM fits in this discussion now that they are required to be lead.

As we discussed these efforts can be looked at as a windfall provision by scientists. I think the FWS noted needs are pretty good as this is a new demand for science on bears that we were not programmed to be seeking because there was no development or seismic permitting likely. Things are different now. Our Secretary's Rep here in Alaska was going to move this forward but he decided not to because of the questions that came up on his relationship with possible FLIR den detection survey company he used to be associated with before joining the Department.

This is for bears, we also have Caribou, water resources, fisheries, mig birds, and the required planning participation. Since we have been near zero in planning for several years we are not in a good place for this new demand. If we do not have good science our planning will be challenged and we will not be able to hold our own in court.

We could build into an out year budget request except the calls to begin now to show support for the recent congressional action by the Department complicates the matter.

I'm willing to discuss at your convenience. I do not know how you may want to move this to Jason Larabee since he is waiting for something on this from Steve Wackowski.

Hope your travel home went okay after the serious delays.

Greg



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Haugrud, Kevin[jack.haugrud@sol.doi.gov]; Morris, Charisa[charisa\_morris@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Cynthia\_Martinez[Cynthia\_Martinez@fws.gov]; Shaun Sanchez[shaun\_sanchez@fws.gov]; Jim Kurth[jim\_kurth@fws.gov]; Zachariah Gambill[zachariah\_gambill@fws.gov]; Kashyap Patel[kashyap\_patel@fws.gov]  
**From:** Bud Cribley  
**Sent:** 2018-01-11T18:59:09-05:00  
**Importance:** Normal  
**Subject:** Re: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
**Received:** 2018-01-11T18:59:21-05:00

LOL

Thank you Jack. I was hoping you would clean up my mess.

Bud

Sent from my iPhone

On Jan 11, 2018, at 5:34 PM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

Thank you Jack. I appreciate the additional clarity.  
Greg

Sent from my iPhone

On Jan 11, 2018, at 5:31 PM, Haugrud, Kevin <jack.haugrud@sol.doi.gov> wrote:

Hopefully I can clarify a bit. (b) (5) ACP

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] Jack

On Thu, Jan 11, 2018 at 4:46 PM, Cribley, Bud <bud\_cribley@fws.gov> wrote:

Charisa,

(b) (5) ACP, (b) (5) DPP  
[REDACTED]  
[REDACTED]  
[REDACTED] When we get that  
information we will be able to respond to these questions.

When and if I heard more I will share.

Bud

On Wed, Jan 10, 2018 at 7:32 PM, Morris, Charisa <charisa\_morris@fws.gov>

wrote:

FYI - I connected with Megan Apgar today, and SOI would like to know the status/location of the ANWR rule, in addition to the questions that are in the table. Last I heard, it may be with Dan Jorjani, but those on this thread know more than me.

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

From: **Craghead, Anissa** <[anissa\\_craghead@fws.gov](mailto:anissa_craghead@fws.gov)>

Date: Tue, Jan 9, 2018 at 7:06 AM

Subject: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List

To: Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>

Cc: Susan Wilkinson <[susan\\_wilkinson@fws.gov](mailto:susan_wilkinson@fws.gov)>, Katherine Garrity <[katherine\\_garrity@fws.gov](mailto:katherine_garrity@fws.gov)>

Good morning, Jim and Charisa.

Exec Sec provided FWS with OMB's comments on FWS actions on the January to March 90 day list. One of the rulemaking actions they want more information on is 1018 BC92, the ANWR action. (It's the last entry in the attachment.) We are to provide responses to Exec Sec using the attached template by Thursday, 1/11.

OMB's exact questions about this action are in the attachment. I don't know how you want to handle this if you'd like to speak directly to Megan Apgar, or if you'd like to include a response in the attachment.

Please let me and Susan Wilkinson know.

Thanks,

Anissa

*Anissa Craghead  
Senior Management Analyst, Division of Policy, Performance, and Management  
Programs  
U.S. Fish and Wildlife Service  
5275 Leesburg Pike, MS: BPHC  
Falls Church, VA 22041-3803  
Telephone: 703-358-2445*

--

[Charisa Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

--

0000011806

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](mailto:bud_cribley@fws.gov)

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Clark, Karen  
**Sent:** 2018-01-12T14:59:35-05:00  
**Importance:** Normal  
**Subject:** Re: Coastal Plain  
**Received:** 2018-01-12T15:00:27-05:00

I totally forgot about this- I'm sorry! You asked about this earlier in the week. I will check with the RDT now. I think most of them are the in the DCR session, so I may not hear back until after lunch.

Karen P. Clark  
Deputy Regional Director  
U.S. Fish & Wildlife Service- Alaska Region  
1011 E Tudor Rd, MS 374  
Anchorage, AK 99503  
[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)  
907.786.3542 office  
907.786.3493 direct  
907.786.3306 fax

On Fri, Jan 12, 2018 at 10:50 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Do have an idea of who should receive invites?

Thanks

Sent from my iPhone

Begin forwarded message:

**From:** "Sweet, Serena" <[ssweet@blm.gov](mailto:ssweet@blm.gov)>  
**Date:** January 12, 2018 at 1:13:38 PM CST  
**To:** [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)  
**Cc:** Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Subject:** Fwd: Coastal Plain

Sending to BLM for consultation



BLM-Alaska, Resources Division

Supervisory Planning  
&  
Environmental Coordinator  
Desk: 907-271-4543  
Cell: 907-223-3267

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

**From:** Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Date:** Thu, Jan 11, 2018 at 1:58 PM  
**Subject:** Fwd: Coastal Plain  
**To:** Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>

Sent from my iPhone

Begin forwarded message:

**From:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Date:** January 10, 2018 at 5:36:21 PM AKST  
**To:** "Murphy, Ted" <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Subject:** Re: Coastal Plain

Hi Ted,

I have given it some thought and have been confused by all the potential meetings and “groups” that need to start coordinating for the new assignment. Today Karen and I discussed that the 19th May be the day to try and pull an executive/sr. Manager team together to discuss the present state of knowledge and expectations.

For an oil and gas 101 I would envision our remnant planning group, our science (endangered species) team, a few Refuge folks and I would like to sit in as well. I would say that we could easily have 15 or more people.

Is this what you have in mind?

Thanks,

Greg

Sent from my iPhone

On Jan 10, 2018, at 8:44 PM, Murphy, Ted <[t75murph@blm.gov](mailto:t75murph@blm.gov)> wrote:

Sending to BLM for consultation



Ted

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

**To:** stephen\_wackowski@ios.doi.gov[stephen\_wackowski@ios.doi.gov]  
**Cc:** mary\_colligan@fws.gov[mary\_colligan@fws.gov]; karen\_clark@fws.gov[karen\_clark@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-12T16:13:37-05:00  
**Importance:** Normal  
**Subject:** Polar Bear science - Details  
**Received:** 2018-01-12T16:13:47-05:00  
[ATT00001.htm](#)  
[Polar Bear Study Ideas for 1002 - 180104 v3.docx](#)

Steve,

This is the latest on our Polar Bear Science paper that lays out the path ahead for having a body of science that will support the oil and gas program BLM environmental review/assessment, seismic permitting, surface exploration, Section seven consultation and Marine Mammal Act review.

This was provided to Greg Sheehan via Deputy Director Kurth just this week.

Likely why the discussion is coming up. I requested it be provided to Jason after our last conversation when you indicated that it had not gone forward from your office.

Mary Colligan can answer questions you may have on the attached and process for Section 7 consults and MMPA requirements.

Greg

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Stephen Wackowski[stephen\_wackowski@ios.doi.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-12T16:34:46-05:00  
**Importance:** Normal  
**Subject:** Re: Polar Bear science - Details  
**Received:** 2018-01-12T16:34:56-05:00

Hi Steve I just spoke with Greg and I just wanted to confirm that I am available and happy to answer any questions by email or phone over the weekend, on Monday, or whenever needed. My work cell phone number is 907 223 5945 and my personal cell is (b) (6)

Thank you,  
Mary

On Fri, Jan 12, 2018 at 12:13 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Steve,

This is the latest on our Polar Bear Science paper that lays out the path ahead for having a body of science that will support the oil and gas program BLM environmental review/assessment, seismic permitting, surface exploration, Section seven consultation and Marine Mammal Act review.

This was provided to Greg Sheehan via Deputy Director Kurth just this week.

Likely why the discussion is coming up. I requested it be provided to Jason after our last conversation when you indicated that it had not gone forward from your office.

Mary Colligan can answer questions you may have on the attached and process for Section 7 consults and MMPA requirements.

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



**To:** Devaris, Aimee[adevaris@usgs.gov]  
**Cc:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; John Pearce[jpearce@usgs.gov]; Christian Zimmerman[czimmerman@usgs.gov]; Steven Cohn[scohn@blm.gov]; Marlo Draper[mdraper@blm.gov]; Ted Murphy[t75murph@blm.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-01-13T14:06:03-05:00  
**Importance:** Normal  
**Subject:** Re: coordination  
**Received:** 2018-01-13T14:06:34-05:00

**Sending to BLM for Consultation**  
[Redacted]

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

On Thu, Jan 11, 2018 at 5:29 PM, Devaris, Aimee <adevaris@usgs.gov> wrote:

**Sending to USGS for Consultation**  
[Redacted]

Sending to USGS for Consultation

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Regards,  
Aimee

--  
**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov]; Jenifer Kohout[jenifer\_kohout@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-15T22:02:33-05:00  
**Importance:** Normal  
**Subject:** Re: Call with Steve Wackowski  
**Received:** 2018-01-15T22:02:35-05:00

Thank you Mary. (b) (5) DPP  
Greg

Sent from my iPhone

On Jan 15, 2018, at 8:58 PM, Colligan, Mary <mary\_colligan@fws.gov> wrote:

Steve called a little bit ago with a few polar bear and 1002 questions. He said he has a call tomorrow morning at 4:30 and wanted to verify some information before the call. He mainly was asking about what information we could obtain this year through the FLIR surveys, he acknowledged that the data he obtained from USGS indicated that if you utilized a 1 mile buffer around all potential modeled polar bear habitat in the 1002 area it accounted for >85% of the area, he asked about the status of the Southern Beaufort Sea subpopulation, and asked for me to review the determinations we have to make under the ESA and MMPA.

Steve said he would loop back to us after the call

--

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

**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]; Cynthia Jacobson[cynthia\_jacobson@fws.gov]; Douglas Mills[douglas\_e\_mills@fws.gov]; Eric Taylor[eric\_taylor@fws.gov]; Gene Peltola[gene\_peltola@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]; Ryan Noel[ryan\_noel@fws.gov]; Sarena Selbo[sarena\_selbo@fws.gov]; Tonyua Robinson[tonyua\_robinson@fws.gov]; Socheata Lor[socheata\_lor@fws.gov]; Doug McBride[doug\_mcbride@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-18T13:55:17-05:00  
**Importance:** Normal  
**Subject:** HQ Request - Region List of "Hot Topics" for FY2019 Budget Hearing prep - Due by COB Friday  
**Received:** 2018-01-18T13:55:25-05:00  
[5.11.17 Alaska Region List of potential.docx](#)

Hi All,

Our HQ Congressional & Legislative Affairs (CLA) team is starting the preliminary work to prepare for the FY2019 budget subcommittee hearings where Acting Director Sheehan may testify.

For this request, the CLA team is looking for a short list of Regional issues that we are hearing about from Members of Congress or staff in our Region.

CLA is particularly interested in issues that are of interest to Members of our authorizing or appropriations subcommittees (House Natural Resources, Senate EPW, and House and Senate Interior Appropriations). All three of the Alaska delegates are members of these subcommittees.

The CLA team will use the list of "Hot" topics to brief Greg Sheehan for these hearings, including in witness practice Q and A's. We may likely be asked to provide updated briefing papers, etc., should one of our topics catch HQ's interest.

CLA is not yet sure of the subcommittee level hearing schedule for FY 2019, but they hope to get some preliminary prep done over the next several weeks.

A first draft list follows:

1. Izembek NWR King Cove Road
2. Ivory Identification issues and impacts to Alaska Native art and handicrafts
3. Arctic NWR Oil & Gas exploration in the Coastal Plain
4. Establishment of the new Polar Bear Commission

5. Land Exchange with CIRI for the Sterling Highway MP 45 60 project (Cooper Landing bypass)
6. CAFF working group and Arctic Council participation
7. Kenai NWR regulations and associated lawsuit
8. B24D Liberator (WWII Plane) on Atka
9. Karluk Lake Compatibility Decision

Please take a minute to review and let me know if any other items may fit the request or if draft items offered above should be omitted.

I am tasked to provide a final list of items to CLA by COB Monday. Due to their deadline, I will need to hear back from interested programs by COB tomorrow (Friday). I have attached our list from last year, the FY18 request for your reference.

Let me know if you have any questions.

Thanks so much!

--

*Amee Howard*

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Sweet, Serena[ssweet@blm.gov]  
**Cc:** Cribley, Bud[bud\_cribley@fws.gov]; Karen Mouritsen[KMourits@blm.gov]; Ted Murphy[t75murph@blm.gov]; Steven Cohn[scohn@blm.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-01-18T16:27:01-05:00  
**Importance:** Normal  
**Subject:** Re: ANWR  
**Received:** 2018-01-18T16:27:08-05:00

Thank you Serena

Sent from my iPhone

On Jan 18, 2018, at 2:33 PM, Sweet, Serena <[ssweet@blm.gov](mailto:ssweet@blm.gov)> wrote:

Yes, they are on the way.

Serena Sweet  
BLM-Alaska, Resources Division

Supervisory Planning  
&  
Environmental Coordinator  
Desk: 907-271-4543  
Cell: 907-223-3267

On Thu, Jan 11, 2018 at 12:55 PM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Serena,

Would you please get a copy of the NPR A IAP EIS and the ROD sent over to Greg Siekaniec at FWS. Also send a copy of the GMT 1 EIS and ROD if you have an extra laying around.

Thanks,

Bud

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

**From:** **Greg Siekaniec** <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Date:** Thu, Jan 11, 2018 at 4:01 PM  
**Subject:** Fwd: ANWR  
**To:** Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>

FYI

Sent from my iPhone

Begin forwarded message:

0000011818

**From:** "Mellinger, Larry" <larry.mellinger@sol.doi.gov>  
**Date:** January 9, 2018 at 8:47:26 PM EST  
**To:** Greg Siekaniec <greg\_siekaniec@fws.gov>  
**Subject:** ANWR

Greg:  
Happy New Year! I hope you are doing well.

(b) (5) ACP  
[Redacted text block]

If you have a small window of availability sometime this week for a brief telephone conversation, I think it would be helpful in going forward with the discussions I am having with my legal colleagues.

Thanks.

Larry

--  
Lawrence P. Mellinger  
Attorney-Advisor  
Division of Parks and Wildlife  
Office of the Solicitor  
U.S. Department of the Interior  
410-252-5442  
202-208-3062

--  
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](mailto:bud_cribley@fws.gov)



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Mitch Ellis[mitch\_ellis@fws.gov]; Doug Damberg[doug\_damberg@fws.gov]  
**From:** Lor, Socheata  
**Sent:** 2018-01-19T14:25:20-05:00  
**Importance:** Normal  
**Subject:** Fwd: BLM Meeting Outomes  
**Received:** 2018-01-19T14:26:05-05:00  
[Supreme Court Decree Coastal Boundary.pdf](#)  
[Proposed Coastal Boundary Arctic National Wildlife 2001.pdf](#)

Greg/Karen,

Are you aware of the issues as described by Doug? Would you like a briefing?

Soch

~~~~~

*Socbeata Lor, Ph.D.  
Acting 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*

~~~~~

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

**From:** **Campbell, Douglas** <douglas\_campbell@fws.gov>  
**Date:** Thu, Jan 18, 2018 at 3:49 PM  
**Subject:** BLM Meeting Outomes  
**To:** Socheata Lor <socheata\_lor@fws.gov>

Hi Soch,

John Brewer and I met with BLM at their request to discuss two subjects - the status of King Cove Corporations ANCSA land entitlement conveyances and the maps prepared by USGS that are attached to and a part of the legislation opening the coastal plain of Arctic Refuge to oil and gas exploration and development.

Below is a synopsis of our discussion and recommendations that we brief the RD on two subjects related to the opening of Arctic Refuge Coastal Plain to oil and gas and followup actions.

King Cove Corporation ANCSA Land Entitlement

The was in regard to the potential land exchange agreement with King Cove Corporation and the road to Cold Bay. BLM wanted to be certain that our land status records etc. matched BLM's records in preparation for the potential land exchange. Our land status records do match BLM's.

BLM had, I think, general knowledge of what is in the land exchange agreement. They expect it to be signed on January 22, when the Corporation is in Washington DC attending a meeting, arranged by AFN, of the Alaska Native Village Corporation Association with the Secretary Zinke.

They mentioned that the agreement may require a real estate appraisal, that it may contain a list of lands the corporation will offer in exchange, and that the document is not specific to who will do the "staff work".

#### USGS Maps Arctic Refuge Coastal Plain

BLM agrees with our critique of the USGS prepared maps. Specifically the maps exclude the majority of Arctic Slope Regional Corporation's oil and gas ownership from the Coastal Plain/1002 Area as shown on the maps (the area shown on the maps is not consistent with the description of the 1002 Area in 50 CFR 67 ) and thus this area is not open to exploration and development of oil and gas.

The maps also do not accurately depict the coastal boundary of the Refuge. In several areas barrier islands that are refuge land are shown as being outside of the boundary. In addition it is not clear if the barrier islands are meant to be open to oil and gas development or not.

The consensus was for our cartographers to create a map that shows what we interpret the intent of the legislation to be, have BLM review and we pass the map on to the Solicitor's office for review and agreement. This was also recommended by the Solicitor's office, Mike Gieryic. We expect this needs RD approval.

The second brief is on the need to engage with the State to determine if we can reach an agreement on how to determine the coastal boundary of the Refuge as agreed upon by both parties and decreed by the Supreme court in the attachment that contains two documents. See page 9 of the first document and page 7a of the second.

Also attached is a proposal we made to the State that resulted in a short lived agreement on an administrative boundary.

Doug Campbell  
Chief Division of Realty  
U.S. Fish and Wildlife Service  
phone: (907) 786-3907  
fax: (907) 786-3901

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Eric Taylor[eric\_taylor@fws.gov]; Colligan, Mary[mary\_colligan@fws.gov]; Doug Damberg[doug\_damberg@fws.gov]  
**From:** Lor, Socheata  
**Sent:** 2018-01-19T15:38:44-05:00  
**Importance:** Normal  
**Subject:** Topics for 1002 discussion this afternoon  
**Received:** 2018-01-19T15:39:20-05:00  
Oil and Gas Coordinator R7 20180119.docx

Greg/Karen,

Here are some topics that Mary, Eric, and I thought we would discuss with you this afternoon:

Proposed Regional 1002 Coordinator (see attachment)  
Coordination with BLM: What are they doing, how we engage, who is their POC (Serena Sweet?)  
Update them on NSSI/Arctic LCC workshop plans?

Thank you!

Soch

~~~~~

*Socbeata Lor, Ph.D.  
Acting 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*

~~~~~

**To:** Howard, Amee[amee\_howard@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-01-23T15:07:58-05:00  
**Importance:** Normal  
**Subject:** Re: Review Request - Region List of "Hot Topics" for FY2019 Budget Hearing prep - Due Today  
**Received:** 2018-01-23T15:08:39-05:00

Amee,

Number 3 should probably reflect the recent legislation that established a purpose of: "(v) to provide for an oil and gas program on the Coastal Plain." This seems more appropriate than exploration in the coastal plain.

3. Arctic NWR - Oil & Gas exploration in the Coastal Plain (We already provided HQ with a budget briefing paper on this topic)

greg

On Tue, Jan 23, 2018 at 10:17 AM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi All,

We have been asked to provide a list of "Hot Topics/Issues" that Acting Director Sheehan may get questions on during the upcoming/Spring FY19 Budget hearing. The list below incorporates the draft sent out to the RDT and comments that I received back. The specific ask from the HQ team was to indicate topics that our delegates may ask about.....which covers a wide variety.

Please take a look at the draft list below and let me know what you would like me to forward on and what should be omitted.

A second draft list for this year follows:

1. Izembek NWR - King Cove Road
2. Ivory Identification issues and impacts to Alaska Native art and handicrafts
3. Arctic NWR - Oil & Gas exploration in the Coastal Plain (We already provided HQ with a budget briefing paper on this topic)
4. Establishment of the new Polar Bear Commission
5. Planning efforts with National/Departmental significance -
  - a. CIRI Land Exchange for Sterling Highway Project
  - b. DOI new five-year draft plan for offshore drilling leases
  - c. Kenai NWR - regulations and associated lawsuit
  - d. Pebble Mine
  - e. Donlin Mine
6. CAFF working group and Arctic Council participation

7. B24D Liberator (WWII Plane) on Atka
8. Karluk Lake Compatibility Decision
9. DOI Changes to implementation and enforcement of the Migratory Bird Treaty Act
10. Invasive Species Early Detection & Rapid Response (EDRR) framework for Alaska

Last year, for the FY18 Budget hearings, we forwarded the issues list below:

Recommended List of "Hot" issues for USFWS - Alaska Region

1. Izembek NWR – King Cove Road
2. Arctic NWR – Comprehensive Conservation Plan and potential oil exploration
3. CIRI Land Exchange for Sterling Highway Project
4. Collaborative Management with State, Tribes, and Partners
5. Federal Subsistence Management Program - Funding and continued service and support
6. Wildlife Trafficking - work at the port of Anchorage and Ivory education

Thanks so much!  
Amee

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

From: **Colligan, Mary** <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Date: Fri, Jan 19, 2018 at 12:52 PM

Subject: Re: HQ Request - Region List of "Hot Topics" for FY2019 Budget Hearing prep - Due by COB Friday

To: "Taylor, Eric" <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>

Cc: "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, Gregory Siekaniec <[gregory\\_siekaniec@fws.gov](mailto:gregory_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Cynthia Jacobson <[cynthia\\_jacobson@fws.gov](mailto:cynthia_jacobson@fws.gov)>, Douglas Mills <[douglas\\_e\\_mills@fws.gov](mailto:douglas_e_mills@fws.gov)>, Gene Peltola <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Ryan Noel <[ryan\\_noel@fws.gov](mailto:ryan_noel@fws.gov)>, Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>, Tonyua Robinson <[tonyua\\_robinson@fws.gov](mailto:tonyua_robinson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Doug McBride <[doug\\_mcbride@fws.gov](mailto:doug_mcbride@fws.gov)>

Eric's suggestions are great ones and we would add the following: Invasive Species Early Detection & Rapid Response (EDRR) framework for Alaska

On Thu, Jan 18, 2018 at 10:46 AM, Taylor, Eric <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)> wrote:

Hi Amee -

Thanks for your note. Four additional topics for consideration are listed below.

Because #s 2, 3 and 4 fall under Mary's responsibility and expertise, I'll defer to her thoughts and recommendations.

- 1) Department of the Interior Solicitor's Office issuing an opinion changing the way the U.S. Fish and Wildlife Service implements and enforces the Migratory Bird Treaty Act. It remains unclear how this opinion affects proposed oil and gas exploration, development production on the Arctic Refuge.
- 2) Department of Interior new, five-year draft plan for offshore drilling leases to include the Beaufort and Chukchi seas and other coasts except for the North Aleutian Basin, near Bristol Bay.
- 3) In December 2017, the Pebble Limited Partnership submitted a permit application to build a gold and copper mine in Southwest Alaska.
- 4) Donlin Mine Final EIS and the Service's 3a/3b elevation.

Regards,

Eric.

On Thu, Jan 18, 2018 at 9:55 AM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi All,

Our HQ Congressional & Legislative Affairs (CLA) team is starting the preliminary work to prepare for the FY2019 budget subcommittee hearings where Acting Director Sheehan may testify.

For this request, the CLA team is looking for a short list of Regional issues that we are hearing about from Members of Congress or staff in our Region.

CLA is particularly interested in issues that are of interest to Members of our authorizing or appropriations subcommittees (House Natural Resources, Senate EPW, and House and Senate Interior Appropriations). All three of the Alaska delegates are members of these subcommittees.

The CLA team will use the list of "Hot" topics to brief Greg Sheehan for these hearings, including in witness practice Q and A's. We may likely be asked to provide updated briefing papers, etc., should one of our topics catch HQ's interest.

CLA is not yet sure of the subcommittee-level hearing schedule for FY 2019, but they hope to get some preliminary prep done over the next several weeks.

A first draft list follows:

1. Izembek NWR - King Cove Road
2. Ivory Identification issues and impacts to Alaska Native art and handicrafts
3. Arctic NWR - Oil & Gas exploration in the Coastal Plain
4. Establishment of the new Polar Bear Commission
5. Land Exchange with CIRI for the Sterling Highway MP 45-60 project (Cooper Landing bypass)
6. CAFF working group and Arctic Council participation
7. Kenai NWR - regulations and associated lawsuit
8. B24D Liberator (WWII Plane) on Atka
9. Karluk Lake Compatibility Decision

Please take a minute to review and let me know if any other items may fit the request or if draft items offered above should be omitted.

I am tasked to provide a final list of items to CLA by COB Monday. Due to their deadline, I will need to hear back from interested programs by COB tomorrow (Friday). I have attached our list from last year, the FY18 request for your reference.

Let me know if you have any questions.

Thanks so much!

--

***Amee Howard***

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

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<https://www.fws.gov/alaska/>

"Day in the Office"

--

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

--

***Amee Howard***

*Congressional and Legislative Affairs*

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Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"



**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-23T16:11:36-05:00  
**Importance:** Normal  
**Subject:** Re: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List  
**Received:** 2018-01-23T16:18:24-05:00

Thanks Greg!

On Tue, Jan 23, 2018 at 10:51 AM, Siekaniec, Greg <greg\_siekaniec@fws.gov> wrote:

should have forwarded this to you earlier.

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

**From:** Haugrud, Kevin <jack.haugrud@sol.doi.gov>

**Date:** Thu, Jan 11, 2018 at 1:31 PM

**Subject:** Re: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List

**To:** "Cribley, Bud" <bud\_cribley@fws.gov>

**Cc:** "Morris, Charisa" <charisa\_morris@fws.gov>, Gregory Siekaniec <greg\_siekaniec@fws.gov>, Karen Clark <karen\_clark@fws.gov>, Cynthia Martinez <Cynthia\_Martinez@fws.gov>, Shaun Sanchez <shaun\_sanchez@fws.gov>, Jim Kurth <jim\_kurth@fws.gov>, Zachariah Gambill <zachariah\_gambill@fws.gov>, Kashyap Patel <kashyap\_patel@fws.gov>

Hopefully I can clarify a bit. (b) (5) ACP [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] Jack

On Thu, Jan 11, 2018 at 4:46 PM, Cribley, Bud <bud\_cribley@fws.gov> wrote:

Charisa,

(b) (5) ACP, (b) (5) DPP [REDACTED]  
[REDACTED]. When we get that information we will be able to respond to these questions.

When and if I heard more I will share.

Bud

On Wed, Jan 10, 2018 at 7:32 PM, Morris, Charisa <charisa\_morris@fws.gov> wrote:

FYI - I connected with Megan Apgar today, and SOI would like to know the status/location of the ANWR rule, in addition to the questions that are in the table. Last I heard, it may be with Dan Jorjani, but those on this thread know more than me.

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

From: **Craghead, Anissa** <[anissa\\_craghead@fws.gov](mailto:anissa_craghead@fws.gov)>

Date: Tue, Jan 9, 2018 at 7:06 AM

Subject: Due by CoB Wednesday, January 10: Responses to OMB Comments on the 90-day List

To: Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>

Cc: Susan Wilkinson <[susan\\_wilkinson@fws.gov](mailto:susan_wilkinson@fws.gov)>, Katherine Garrity <[katherine\\_garrity@fws.gov](mailto:katherine_garrity@fws.gov)>

Good morning, Jim and Charisa.

Exec Sec provided FWS with OMB's comments on FWS actions on the January to March 90 day list. One of the rulemaking actions they want more information on is 1018 BC92, the ANWR action. (It's the last entry in the attachment.) We are to provide responses to Exec Sec using the attached template by Thursday, 1/11.

OMB's exact questions about this action are in the attachment. I don't know how you want to handle this if you'd like to speak directly to Megan Apgar, or if you'd like to include a response in the attachment. Please let me and Susan Wilkinson know.

Thanks,

Anissa

*Anissa Craghead*  
*Senior Management Analyst, Division of Policy, Performance, and Management Programs*  
*U.S. Fish and Wildlife Service*  
*5275 Leesburg Pike, MS: BPHC*  
*Falls Church, VA 22041-3803*  
*Telephone: 703-358-2445*

--

[Charisa Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

--

**Bud C Cribley**  
Senior Advisor for Energy with the U.S. Fish & Wildlife Service  
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Cell # 907-717-5141  
Office # MIB 3341  
email: [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)

0000011830

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*Amee Howard*

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"Day in the Office"

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Devaris, Aimee[adevaris@usgs.gov]; Ted Murphy[t75murph@blm.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-01-23T20:35:36-05:00  
**Importance:** Normal  
**Subject:** Fwd: Workshop Follow-up: FWS Interagency, Interdisciplinary Resource Assessment Request - Suspense 15 Feb 2018  
**Received:** 2018-01-23T20:36:14-05:00  
[Table - Discipline Subjects & Interagency Teams 23Jan2018amUPDATED.docx](#)  
[REPORTING TEMPLATE.docx](#)  
[Coastal Plain 1002 Area Interdisciplinary Info Request UPDATED wRPT OUTLINE 9Jan2018v6.docx](#)

Sending to BLM for  
Consultation

[Redacted content]

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

----- Forwarded message -----  
**From:** **Martin, John** <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)>  
**Date:** Tue, Jan 23, 2018 at 8:12 AM  
**Subject:** Workshop Follow-up: FWS Interagency, Interdisciplinary Resource Assessment Request - Suspense 15 Feb 2018  
**To:** Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>  
**Cc:** Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Sarena

Per our brief discussions Fri 19 Jan 2018 during the workshop.

Per your request, find attached the Service's approach to providing DOI with the same, or similar, information as was discussed Fri during the workshop.

Please advise us whether we can respond jointly or if we will work separately due to differing reporting deadlines.

The attached narrative with *please read carefully* (in red type) provides the draft affected environment from our coastal plain 1002 area regulation EA (presently uncertain status). While brief and not covering much in depth or breadth, keep in mind that 50 CFR 37 required and EIS-level analysis with each exploration permit application. These discussion were intended as a starting point for teams to expand, adapt or discard.

The reporting template is just the nuts and bolts of the resource assessment needs. As noted, this has been envisioned as a bullet-type memo report.

Finally, I sent out the following as clarifications to the resource assessment needs template and reporting due to email traffic and some apparent misunderstandings.

1. We have been tasked to provide a succinct, state-of-the-knowledge summary of the discipline subjects along with any known information or data gaps that would encumber informed agency decisions relative to: "provide an oil and gas program on the coastal plain ... in a manner similar to the administration of lease sales under the Naval Petroleum Reserves Production Act ...."
2. As our responses regarding *where we are* and *what we need to know* are routed upward to DOI, this portfolio of all the respective subjects will be used at the agency-director level as a resource in moving forward, and in turn, as an information source when they are asked questions.
3. Our responses may include, but not limited to, recommendations regarding core areas, sensitive life history periods or events, movement corridors, population objectives or goals, etc.
4. Our purpose is not to make management decisions at this time but provide information upon which management decisions may be based.

If I may provide more information or answer any questions, please so advise.

Thanks

John

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Devaris, Aimee[adevaris@usgs.gov]; Stephen Wackowski[stephen\_wackowski@ios.doi.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-01-24T21:05:42-05:00  
**Importance:** Normal  
**Subject:** Fwd: 1-19-18 Arctic Leasing Workshop Presentations  
**Received:** 2018-01-24T21:06:39-05:00  
[BLM Oil and Gas Program Overview - Rob Brumbaugh.pdf](#)  
[Overview of Geophysical and Seismic Exploration - Donna Wixon.pdf](#)  
[Overview of Coastal Plain Oil and Gas Plan EIS - Nicole Hayes.pdf](#)  
[Overview of Leasing Process - Wayne Svejnoha.pdf](#)  
[Overview of APD Process \(Exploration and Production\) - Rob Brumbaugh.pdf](#)  
[Compliance and Monitoring \(Certification Process\) Zach Lyons & Donna Wixon.pdf](#)

Here are the presentations from the workshop last week. For those of you not at the workshop, we are glad to give you the 10 minute version of any or all of these presentations. Thanks,  
Karen

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** Serena Sweet <ssweet@blm.gov>  
**Date:** Fri, Jan 19, 2018 at 6:11 PM  
**Subject:** 1-19-18 Arctic Leasing Workshop Presentations  
**To:** Aimee Devaris <adevaris@usgs.gov>, Ameer Howard <amee\_howard@fws.gov>, Bradley Shults <bradley\_shults@fws.gov>, "Brumbaugh, Robert" <rbrumbau@blm.gov>, "Burns, Melissa" <melissa\_burns@fws.gov>, Casey Burns <ctburns@blm.gov>, Catherine Hillis <chillis@blm.gov>, Christian Zimmerman <czimmerman@usgs.gov>, Christopher Putnam <christopher\_putnam@fws.gov>, Dave Mushovic <dmushovi@blm.gov>, Debora Nigro <dnigro@blm.gov>, Diane Granfors <diane\_granfors@fws.gov>, Donna Wixon <dwixon@blm.gov>, Doug Damberg <doug\_damberg@fws.gov>, Douglass Cooper <douglass\_cooper@fws.gov>, Drew Crane <drew\_crane@fws.gov>, Elizabeth Labunski <elizabeth\_labunski@fws.gov>, Eric Taylor <eric\_taylor@fws.gov>, "Fritz, Stacey" <sfritz@blm.gov>, Greg Siekaniec <greg\_siekaniec@fws.gov>, Jessie Chmielowski <jchmielowski@blm.gov>, John Trawicki <john\_trawicki@fws.gov>, Jordan Muir <jordan\_muir@fws.gov>, Karen Clark <karen\_clark@fws.gov>, Karen Mouritsen <kmourits@blm.gov>, Kimberly Klein <kimberly\_klein@fws.gov>, Kyle James <kyle\_james@fws.gov>, Laura McDuffie <laura\_mcduffie@fws.gov>, Lesli Ellis-Wouters <lellis@blm.gov>, Margaret Perdue <margaret\_perdue@fws.gov>, Mark Miller <memiller@blm.gov>, Marlo Draper <mldraper@blm.gov>, "Martin, John" <john\_w\_martin@fws.gov>, Mary Colligan <mary\_colligan@fws.gov>, "Miriam (Nicole) Hayes" <mnhayes@blm.gov>, "Pearce, John" <jpearce@usgs.gov>, Richard Lanctot

<[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>, Robert Kaler <[robert\\_kaler@fws.gov](mailto:robert_kaler@fws.gov)>, Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, Ryan Noel <[ryan\\_noel@fws.gov](mailto:ryan_noel@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Sara Longan <[slongan@blm.gov](mailto:slongan@blm.gov)>, Sarah LaMarr <[slamarr@blm.gov](mailto:slamarr@blm.gov)>, Shelly Jacobson <[njones@blm.gov](mailto:njones@blm.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Stephen Wackowski <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>, Steven Cohn <[scohn@blm.gov](mailto:scohn@blm.gov)>, Tamara Zeller <[tamara\\_zeller@fws.gov](mailto:tamara_zeller@fws.gov)>, Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Wayne Svejnoha <[wsvejnoh@blm.gov](mailto:wsvejnoh@blm.gov)>, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>, Zachary Lyons <[zlyons@blm.gov](mailto:zlyons@blm.gov)>, [william\\_dove@ios.doi.gov](mailto:william_dove@ios.doi.gov)

Hello,

Thank you all for your participation in the Arctic Leasing Workshop today. Attached are the slides from the presentations and the notes will be sent out as soon as possible.

If there is anyone from your agency that participated in this workshop that I missed on this email please let me know so that I can them to our distribution list.

Please feel free to contact Nicole Hayes or myself if you have any questions.

Serena Sweet  
BLM-Alaska, Resources Division

Supervisory Planning  
&  
Environmental Coordinator  
Desk: 907-271-4543  
Cell: 907-223-3267

--

Serena Sweet Supervisory Planning & Environmental Coordinator BLM Alaska - Division of Resources [www.blm.gov/ak/planning](http://www.blm.gov/ak/planning) Desk: 907-271-4543 Cell: 907-223-3267

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-01-25T12:45:10-05:00  
**Importance:** Normal  
**Subject:** 1002 and Polar Bears  
**Received:** 2018-01-25T12:45:17-05:00

The 2 bids for conducting the FLIR work in the coming weeks have been reviewed and a vendor has been selected for a project cost of \$200K. We can award as soon as we have a cost code to charge this to I am not sure how we proceed so am seeking your assistance. Obviously this is very time sensitive as we want to get the flights started ASAP.

Secondly, I learned something new yesterday that I wanted to share. I expressed concern to you on the margins of the call yesterday that if ear tags were deployed by USGS this spring they would not still be active next denning season. I asked Patrick about that more and he informed me that USGS intends to have them delay in starting to transmit with the intent that the battery life will cover next denning season. Just wanted to share that new tidbit.

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



**To:** Howard, Amee[amee\_howard@fws.gov]  
**Cc:** Martin Kodis[martin\_kodis@fws.gov]; Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]  
**From:** Gustavson, Angela  
**Sent:** 2018-01-25T17:30:58-05:00  
**Importance:** Normal  
**Subject:** Re: Hot Topics for FY 19 Budget Hearing Preparation  
**Received:** 2018-01-25T17:31:50-05:00

Hi Amee,

Thanks, we appreciate you putting together this list of hot topics that may come up at the budget hearings. We'll let you know if there's any additional help we need with hearing preparation on these or other topics. Also, I wanted to let you know that the Department is drafting a briefing paper on Izembek NWR to prepare for the Secretary's budget hearings. OCL indicated we'll have an opportunity to fact-check it and we'll share it with you when we get it.

Thanks,

Angela

Angela Gustavson  
Deputy Chief  
Division of Congressional and Legislative Affairs  
U.S. Fish and Wildlife Service  
Office: 703-358-2253  
Mobile: 202-909-5105  
[angela\\_gustavson@fws.gov](mailto:angela_gustavson@fws.gov)

On Tue, Jan 23, 2018 at 3:52 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Angela,

With the Alaska Delegation sitting on significant committees, they could ask about a myriad of topics. We tried to keep things concise, but it is always interesting what ends up in the Interior appropriations bills. We included a few of those topics to the our list below since they could come up in conversation. Please let me know what stands out for you and if we need to get the Region 7 team working on more details.

1. Izembek NWR - King Cove Road
2. Ivory Identification issues and impacts to Alaska Native art and handicrafts
3. Arctic Refuge - to provide for an Oil & Gas program in the Coastal Plain
4. Establishment of the new Polar Bear Commission
5. Planning efforts with National/Departmental significance -
  - a. CIRI Land Exchange for Sterling Highway Project
  - b. DOI new five-year draft plan for offshore drilling leases
  - c. Kenai NWR - regulations and associated lawsuit
  - d. Pebble Mine
  - e. Donlin Mine
6. CAFF working group and Arctic Council participation

7. B24D Liberator (WWII Plane) on Atka
8. Karluk Lake Compatibility Determination
9. DOI Changes to implementation and enforcement of the Migratory Bird Treaty Act
10. Invasive Species Early Detection & Rapid Response (EDRR) framework for Alaska

Thanks so much!  
Amee

On Thu, Jan 18, 2018 at 7:55 AM, Gustavson, Angela <[angela\\_gustavson@fws.gov](mailto:angela_gustavson@fws.gov)> wrote:

Good afternoon,

Thank you for your help with the briefing papers to prepare for the Secretary's budget hearings. We're now also preparing for potential budget hearings that Greg may have. Budget hearings have not been scheduled yet, but in the past the FWS Director has testified before the House Natural Resources Federal Lands and Water, Power, and Oceans Subcommittees. In addition, the Director has testified before the House and Senate Interior Appropriations Subcommittees.

Please take a look at the Members on those Subcommittees and let me know if there are any hot topics within your region that you anticipate Members may bring up with Greg at a budget hearing. We have a number of issues identified already as you know through our budget briefing papers, so we're looking for additional issues in the region that would be of interest to those Subcommittee Members.

If you could let us know by COB Monday, January 22, that would be helpful.  
Thanks,

Angela

Angela Gustavson  
Deputy Chief  
Division of Congressional and Legislative Affairs  
U.S. Fish and Wildlife Service  
Office: 703-358-2253  
Mobile: 202-909-5105  
[angela\\_gustavson@fws.gov](mailto:angela_gustavson@fws.gov)

--

*Amee Howard*

*Congressional and Legislative Affairs*  
U.S. Fish & Wildlife Service  
Anchorage, Alaska  
Office: (907)786-3509  
Mobile: (907)229-8575  
<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Lor, Socheata  
**Sent:** 2018-01-26T19:51:48-05:00  
**Importance:** Normal  
**Subject:** Re: Role of the FWS in the Oil and Gas Program at ANWR  
**Received:** 2018-01-26T19:52:19-05:00

Yes, we'll get on your calendar early next week. Our planning staff have been working on these topics. Stephanie will be in Anchorage next week.

Soch

~~~~~  
*Socheata Lor, Ph.D.*  
*Acting 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, Jan 26, 2018 at 2:56 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Soch,  
Your popularity grows by leaps and bounds...

We should gather and discuss what we are thinking based on Larry providing us this feedback.

(b) (5) ACP, (b) (5) DPP  
[Redacted]

Perhaps I should schedule a call with Larry and us once we have an idea of how we wish to proceed so we can discuss if it fits with his sense of where this is headed and if he foresees any pitfalls along the way.

(b) (5) ACP, (b) (5) DPP  
[Redacted]

greg

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

From: **Mellinger, Larry** <larry.mellinger@sol.doi.gov>

Date: Fri, Jan 26, 2018 at 1:53 PM

Subject: Role of the FWS in the Oil and Gas Program at ANWR

To: Greg Siekaniec <greg\_siekaniec@fws.gov>

Cc: Jim Kurth <jim\_kurth@fws.gov>, "Martinez, Cynthia" <cynthia\_martinez@fws.gov>,

"Goeken, Richard" <richard.goeken@sol.doi.gov>, "Romanik, Peg"

<peg.romanik@sol.doi.gov>, Benjamin Jesup <benjamin.jesup@sol.doi.gov>

Greg:

As you are aware, (b) (5) ACP, (b) (5) DPP [Redacted]  
[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]  
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[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]

(b) (5) ACP, (b) (5) DPP

[Redacted]

[Redacted]

[Redacted]

Any guidance you could give me would be helpful, and I would be glad to discuss this further with you at your convenience.

Thanks.

Larry

--  
Lawrence P. Mellinger  
Attorney-Advisor  
Division of Parks and Wildlife  
Office of the Solicitor  
U.S. Department of the Interior  
410-252-5442  
202-208-3062

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-01-30T19:31:37-05:00  
**Importance:** Normal  
**Subject:** Updated Meeting Materials for Tomorrow's Congressional Meeting  
**Received:** 2018-01-30T19:31:49-05:00  
[1.31.18 Agenda - AK Delegation Staff Meeting - Internal.docx](#)  
[1.31.18 - Congressional Meeting Topics for Discussion.pdf](#)

Hi All,

Please find attached the updated Topics for discussion document and a notated version of the Agenda for internal use.

I have also put the attached documents in the Google File that was shared earlier.

Let me know if you have any questions.

Thanks so much!

Amee

--

*Amee Howard*

*Congressional and Legislative Affairs*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**From:** Google Calendar  
**Importance:** Normal  
**Subject:** Accepted: Wendy Loya\* Arctic Refuge oil & Gas Program role as POC @ Fri Feb 2, 2018 9:30am - 10am (AKST) (Regional Director's Office)  
**Start Date/Time:** 2018-02-02T13:30:00-05:00  
**End Date/Time:** 2018-02-02T14:00:00-05:00  
[invite.ics](#)

Greg Siekaniec has accepted this invitation.

**Wendy Loya\* Arctic Refuge oil & Gas Program role as POC**

Can you find 30 min in Greg's schedule for him and I to meet regarding my new role as he point of contact for Arctic Refuge oil and gas program? I am part of the meeting scheduled for 10am Friday 2/2, so if 930am tomorrow were available, that would be perfect.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

When  
Video call

Calendar

Who

Fri Feb 2, 2018 9:30am 10am Alaska Time

[https://plus.google.com/hangouts/\\_/doi.gov/doi.gov\\_4ugnr6](https://plus.google.com/hangouts/_/doi.gov/doi.gov_4ugnr6)

Regional Director's Office



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lynne santos@fws.gov  
greg siekaniec@fws.gov  
wendy loya@fws.gov  
karen clark@fws.gov

Invitation from [Google Calendar](#)

You are receiving this email at the account tauline\_davis@fws.gov because you are subscribed for invitation replies on calendar Regional Director's Office.

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

**From:** Google Calendar  
**Location:** FWS-FW7 Mary Smith Media Center/Regional Office  
**Importance:** Normal  
**Subject:** Accepted: Meeting: SOL Request - Information Regarding FWS Role in... @ Fri Feb 2, 2018 10am - 11am (AKST) (Regional Director's Office)  
**Start Date/Time:** 2018-02-02T14:00:00-05:00  
**End Date/Time:** 2018-02-02T15:00:00-05:00  
[invite.ics](#)

Greg Siekaniec has accepted this invitation.

**Meeting: SOL Request - Information Regarding FWS Role in Oil and Gas Program at Arctic Refuge - Need 1 Hour for the Meeting - Call in:** (b) (5) CIP or (b) (5) CIP **Participant:**

(b) (5) CIP

When Fri Feb 2, 2018 10am - 11am Alaska Time  
Where FWS FW7 Mary Smith Media Center/Regional Office  
([map](#))  
Video call [https://plus.google.com/hangouts/\\_/doi.gov/doi.gov](https://plus.google.com/hangouts/_/doi.gov/doi.gov)  
Calendar [4ugntr6](#)  
Who Regional Director's Office

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tauline davis@fws.gov  
stephanie brady@fws.gov  
karen clark@fws.gov  
wendy loya@fws.gov  
greg siekaniec@fws.gov  
socheata lor@fws.gov

Invitation from [Google Calendar](#)

You are receiving this email at the account [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov) because you are subscribed for invitation replies on calendar Regional Director's Office.

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.](#)

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Jim Kurth  
**Sent:** 2018-02-06T14:55:53-05:00  
**Importance:** Normal  
**Subject:** FLIR contract  
**Received:** 2018-02-06T14:55:59-05:00

Has it been awarded?

Sent from my iPhone

**To:** Jim Kurth[jim\_kurth@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-06T15:49:37-05:00  
**Importance:** Normal  
**Subject:** Re: FLIR contract  
**Received:** 2018-02-06T15:49:38-05:00

Yes, it has been issued/awarded.  
greg

On Tue, Feb 6, 2018 at 10:55 AM, Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)> wrote:

Has it been awarded?

Sent from my iPhone

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; karen\_clark@fws.gov[karen\_clark@fws.gov]  
**From:** Karen Mouritsen  
**Sent:** 2018-02-07T09:26:04-05:00  
**Importance:** Normal  
**Subject:** Fwd: Draft Communications Plan Coastal Plain 1002 Area EIS NOI  
**Received:** 2018-02-07T09:26:16-05:00  
[ATT00001.htm](#)  
[Communications Plan 1002 NOI 02 06 2018.docx](#)

We are to discuss with ASLM later today. I just want to add the message we give prior to issuance of NOI  
Sent from my iPad

Begin forwarded message:

**From:** "McIntosh, Stacie" <s05mcint@blm.gov>  
**Date:** February 6, 2018 at 4:04:56 PM AKST  
**To:** Jeff Krauss <jkrauss@blm.gov>, Beverly Winston <bwinston@blm.gov>  
**Cc:** Ted Murphy <t75murph@blm.gov>, Karen Mouritsen <kmourits@blm.gov>  
**Subject:** Draft Communications Plan Coastal Plain 1002 Area EIS NOI

Sending to BLM for  
Consultation

[Redacted]

[Redacted]

[Redacted]

--  
BLM Alaska  
Office of Communications  
(907) 271 4405 work  
(907) 378 3815 cell

**To:** Glaspell, Brian[brian\_glaspell@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-08T12:23:42-05:00  
**Importance:** Normal  
**Subject:** Re:  
**Received:** 2018-02-08T12:23:49-05:00

Brian,

Sorry for the tardy reply. In many ways we doing as you say, "hanging in" and looking to the future for better days. Thanks for sending a note and good to hear you have momentum in the conservation of place and wildlife. We are working to understand the new relationship with BLM and their assigned role of NEPA planning and administration of an oil and gas program for the coastal plain of Arctic NWR.

As Bob Dylan noted so many years ago... "the times they are a changing".

greg

On Thu, Jan 25, 2018 at 9:09 AM, Glaspell, Brian <[brian\\_glaspell@fws.gov](mailto:brian_glaspell@fws.gov)> wrote:

Hi Greg,

Hope you're doing well, all things considered. Just writing to say, "Hang in there."

I feel privileged and grateful to be working here, on the cusp of making some big changes and enjoying the support of the community and our many partners. Alaska seems like a no-holds-barred cage match by comparison! Not sure that I have much to offer any longer, but if there is anything I can do to support your efforts there, please let me know.

Take care

--Brian

Brian Glaspell  
Refuge Manager  
National Elk Refuge

307 201 5409 office  
307 690 0905 cell

P.O. Box 510; 675 E. Broadway  
Jackson, WY 83001  
[brian\\_glaspell@fws.gov](mailto:brian_glaspell@fws.gov)

**To:** Kurth, Jim[jim\_kurth@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-08T15:08:33-05:00  
**Importance:** Normal  
**Subject:** Re: polar bears  
**Received:** 2018-02-08T15:15:37-05:00

Yes, we will work the issue.

Greg

Sent from my iPhone

> On Feb 8, 2018, at 10:12 AM, Kurth, Jim <jim\_kurth@fws.gov> wrote:

>

> Jason requested a briefing paper on what we are doing with polar bears. I told him that you had submitted a draft plan developed by FWS, USGS, BLM, which he has seen. I told him that you had issued the contract for the FLIR work. I said that I didn't know where the other bureaus were with their pieces. I emphasized the need for development of better radio collars.

>

> Is it possible for you to work with the others to provide an update on the status of polar bear research/studies related to Arctic NWR?

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-08T16:11:51-05:00  
**Importance:** Normal  
**Subject:** Re: polar bears  
**Received:** 2018-02-08T17:42:49-05:00

Evidently there is a weekly meeting that must happen on Thursdays. I'll see if we can have a few days to work this matter.

greg

On Thu, Feb 8, 2018 at 12:02 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Sure when do you need it ?

On Thu, Feb 8, 2018 at 11:09 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Hi Mary,  
Can we pull this together per Jim's request.

Thanks,

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Kurth, Jim" <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** February 8, 2018 at 10:12:27 AM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** polar bears

Jason requested a briefing paper on what we are doing with polar bears. I told him that you had submitted a draft plan developed by FWS, USGS, BLM, which he has seen. I told him that you had issued the contract for the FLIR work. I said that I didn't know where the other bureaus were with their pieces. I emphasized the need for development of better radio collars. Is it possible for you to work with the others to provide an update on the status of polar bear research/studies related to Arctic NWR?

--

Mary Colligan  
Assistant Regional Director

0000011852



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

**To:** Mary Colligan[mary\_colligan@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-08T17:10:03-05:00  
**Importance:** Normal  
**Subject:** Fwd: polar bears  
**Received:** 2018-02-08T17:36:05-05:00

Monday is the requested day.

greg

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

**From:** **Jim Kurth** <jim\_kurth@fws.gov>  
**Date:** Thu, Feb 8, 2018 at 12:23 PM  
**Subject:** Re: polar bears  
**To:** "Siekaniec, Greg" <greg\_siekaniec@fws.gov>

If I could get it by Monday

Sent from my iPhone

On Feb 8, 2018, at 4:13 PM, Siekaniec, Greg <greg\_siekaniec@fws.gov> wrote:

Do you need this for next weeks meeting or is this a quick turnaround. I have asked folks to begin but it will take some discussions with USGS, etc.  
greg

On Thu, Feb 8, 2018 at 10:12 AM, Kurth, Jim <jim\_kurth@fws.gov> wrote:

Jason requested a briefing paper on what we are doing with polar bears. I told him that you had submitted a draft plan developed by FWS, USGS, BLM, which he has seen. I told him that you had issued the contract for the FLIR work. I said that I didn't know where the other bureaus were with their pieces. I emphasized the need for development of better radio collars.  
Is it possible for you to work with the others to provide an update on the status of polar bear research/studies related to Arctic NWR?

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]  
**From:** Jim Kurth  
**Sent:** 2018-02-08T17:54:00-05:00  
**Importance:** Normal  
**Subject:** Re: polar bears  
**Received:** 2018-02-08T17:54:57-05:00

Thanks

Sent from my iPhone

On Feb 8, 2018, at 5:13 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

I have folks working it.  
greg

On Thu, Feb 8, 2018 at 12:23 PM, Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)> wrote:

If I could get it by Monday

Sent from my iPhone

On Feb 8, 2018, at 4:13 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Do you need this for next weeks meeting or is this a quick turnaround. I have asked folks to begin but it will take some discussions with USGS, etc.  
greg

On Thu, Feb 8, 2018 at 10:12 AM, Kurth, Jim <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)> wrote:

Jason requested a briefing paper on what we are doing with polar bears. I told him that you had submitted a draft plan developed by FWS, USGS, BLM, which he has seen. I told him that you had issued the contract for the FLIR work. I said that I didn't know where the other bureaus were with their pieces. I emphasized the need for development of better radio collars.  
Is it possible for you to work with the others to provide an update on the status of polar bear research/studies related to Arctic NWR?

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Jenifer Kohout[jenifer\_kohout@fws.gov]; Patrick Lemons[patrick\_lemmons@fws.gov]; James Wilder[james\_wilder@fws.gov]; Atwood, Todd[tatwood@usgs.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-02-09T17:40:15-05:00  
**Importance:** Normal  
**Subject:** 1002 and Polar Bears  
**Received:** 2018-02-09T17:40:25-05:00  
[2018 Feb 9 Polar Bear Briefing Paper.docx](#)

Greg & Karen

Attached please find the requested polar bear briefing paper. This was compiled by the USGS and FWS polar bear leads. We did not put this in the paper, but it is worth noting that the expanded survey effort described in the paper is costing USGS approximately \$290K and the FLIR project will cost us about \$210K (\$200K for the contract \$10K for our staff travel for training the crew). In the brief, we do note that additional R&D on collars could be done if funding were available to support that effort.

Thanks and please let us know if you have any questions.  
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

**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-09T20:01:28-05:00  
**Importance:** Normal  
**Subject:** Re: 1002 and Polar Bears  
**Received:** 2018-02-09T20:01:34-05:00

Thanks Mary,

We should check with Ameer on current briefing format. Also, we have initiated some level of followup to the usgs science bibliography that we should probably note as an activity.

greg

On Fri, Feb 9, 2018 at 1:40 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg & Karen

Attached please find the requested polar bear briefing paper. This was compiled by the USGS and FWS polar bear leads. We did not put this in the paper, but it is worth noting that the expanded survey effort described in the paper is costing USGS approximately \$290K and the FLIR project will cost us about \$210K (\$200K for the contract \$10K for our staff travel for training the crew). In the brief, we do note that additional R&D on collars could be done if funding were available to support that effort.

Thanks and please let us know if you have any questions.

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

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Thorson, Robyn  
**Sent:** 2018-02-12T19:10:06-05:00  
**Importance:** Normal  
**Subject:** Re: thinking of you....  
**Received:** 2018-02-12T19:11:30-05:00

Oh, you're right (of course): in haste I was reading about increases in Refuges when I saw "zero zero zero" after the heading Subsistence. Haste makes waste.

And you're right about the Budget agreement in Congress "trumping" (pun intended) the President's budget. Or maybe not. But it's certainly not the appropriation death-knell that was predicated this time last year. Much drama ahead but it seems to be an exercise in tweaking rather than the guillotine. Gallows humor (more pun intended). :)

Arctic, Izembek, global warming's effects on the permafrost....you're far from DC but you seem to be on the cutting edge of issues. Nobody better for it, but I'm still sorry for the burden on you.

Thinking of you (I actually love winter in Anchorage).

RT

Robyn Thorson  
Regional Director, Pacific Region One  
Idaho, Oregon, Washington, Hawaii & Pacific Islands  
U.S. Fish & Wildlife Service  
911 NE 11th Avenue  
Portland, OR 97232  
503.231.6119

On Mon, Feb 12, 2018 at 3:28 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Hi Robyn,

I did not get subsistence being zeroed out when I read the comp table. Zero program increases in refuge portion and 47 increase from FY18 annualized in aquatic habitat portion. Hard to see all that is going on with Pres budget. The question is what did the senate and house agree to in the recent budget deal. This budget is likely moot. How balance between what congress did and what the department wants is another story.

We are hanging in on our issues front. Working to develop a planning team with BLM on Arctic NWR oil and gas program. Izembek law suit has already been filed.

Employees seem to be doing okay. We all know we need to step up and keep the conservation values as front and center around the proposed changes.

Thanks for the note and thinking of us.

Greg

Sent from my iPhone

On Feb 12, 2018, at 1:44 PM, Thorson, Robyn <[robyn\\_thorson@fws.gov](mailto:robyn_thorson@fws.gov)> wrote:

If I read the budget comp table correctly, Subsistence got zero-ed out. There is a high likelihood that I am mis-reading, but it prompted me to drop a line of sympathy. Do you think you have ENOUGH tough issues on your plate?... You're on my mind....thought I'd drop a line.

Robyn

Robyn Thorson  
Regional Director, Pacific Region One  
Idaho, Oregon, Washington, Hawaii & Pacific Islands  
U.S. Fish & Wildlife Service  
911 NE 11th Avenue  
Portland, OR 97232  
503.231.6119

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Jim Kurth[jim\_kurth@fws.gov]; Kashyap Patel[kashyap\_patel@fws.gov]  
**From:** Morris, Charisa  
**Sent:** 2018-02-13T12:00:27-05:00  
**Importance:** Normal  
**Subject:** Re: DUE 4pm ET today (2/13) - Area 1002 agenda item for the Secretary  
**Received:** 2018-02-13T12:01:17-05:00

Excellent - thank you, both!

On Tue, Feb 13, 2018 at 11:29 AM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Good Morning Charisa,  
I understand Deputy Kurth forwarded our briefing paper on polar bears that was provided yesterday. He indicated that it should take care of the request.

Thanks,

greg

On Tue, Feb 13, 2018 at 5:52 AM, Morris, Charisa <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)> wrote:

Good morning!

Jason, Dan, and Greg will be meeting with the Secretary on Thursday. Please fill out the "Area 1002 Polar Bear Study" section on the agenda template, which can be found here: [Click here to populate agenda.](#)

NPS topics are first; FWS follows (starting page 4). **Please complete your section by 4pm et today, Tuesday, February 13.** The responses do not need to be lengthy in order to be complete.

Let me know if you have any questions.

Thanks!  
Charisa

PS - I've copied the data you'll need to populate below, FYI - however, please fill this out within the actual google doc itself, linked above.

## **I. AREA 1002 POLAR BEAR STUDY**

Summarize the issue in 1-2 sentences.

### **a. ISSUE BACKGROUND**



Briefly describe the issue background.

**b. ACTIONS TAKEN BY HALLWAY**

Briefly describe actions being taken by the Assistant Secretary and relevant Bureau hallways.

**c. RECOMMENDATION BY THE DEPUTY SECRETARY**

Provide the Deputy Secretary's opinion.

**d. ACTION ITEM FOR SECRETARY (if applicable)**

If an action item exists, provide information requested in decision memo guidance. Please include constraints on action by the Secretary.

--

[Charisa Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

--

[Charisa Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

**To:** mary\_colligan@fws.gov[mary\_colligan@fws.gov];  
socheata\_lor@fws.gov[socheata\_lor@fws.gov]  
**Cc:** karen\_clark@fws.gov[karen\_clark@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-14T14:20:10-05:00  
**Importance:** Normal  
**Subject:** Fwd: Response requested ASAP: Meeting with Steve W. next week on LNG Air Quality and Visual & Noise issues  
**Received:** 2018-02-14T14:20:20-05:00  
[ATT00001.htm](#)  
[Visual Resources and Noise\\_AKLNG-6020-REG-YPW-DOC-00006.pdf](#)

We need to figure out how to reply to this request. Also, how we have provided information concerning air quality and visual/noise issues previously.  
Can we investigate and set up some time to discuss.

Greg

Sent from my iPhone

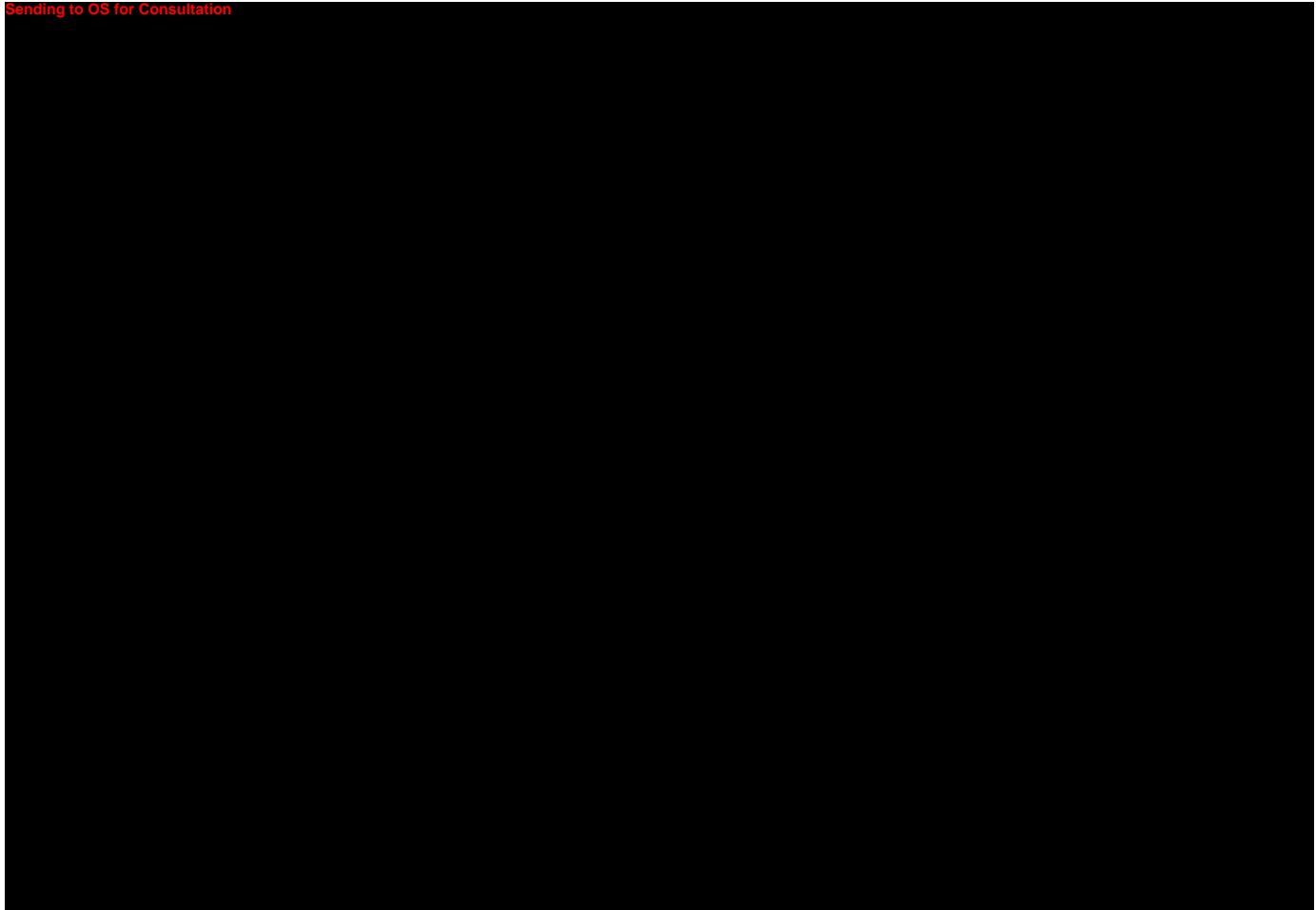
Begin forwarded message:

**From:** "Johnson, Philip" <[philip\\_johnson@ios.doi.gov](mailto:philip_johnson@ios.doi.gov)>  
**Date:** February 14, 2018 at 9:35:52 AM AKST  
**To:** Herbert Frost <[bert\\_frost@nps.gov](mailto:bert_frost@nps.gov)>, Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Cc:** Grace Cochon <[grace\\_cochon@ios.doi.gov](mailto:grace_cochon@ios.doi.gov)>  
**Subject:** Response requested ASAP: Meeting with Steve W. next week on LNG Air Quality and Visual & Noise issues

Sending to OS for Consultation



Sending to OS for Consultation



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](mailto:philip_johnson@ios.doi.gov)

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

From: **Wackowski, Stephen** <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
Date: Wed, Feb 14, 2018 at 4:37 AM  
Subject: Fwd: Air Quality and Visual & Noise whitepapers  
To: "Johnson, Philip" <[philip\\_johnson@ios.doi.gov](mailto:philip_johnson@ios.doi.gov)>

Sending to OS for Consultation



Sending to OS for Consultation

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

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

From: Ed Fogels <[EFogels@agdc.us](mailto:EFogels@agdc.us)>  
Date: Tue, Feb 13, 2018 at 6:11 PM  
Subject: Air Quality and Visual & Noise whitepapers  
To: "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>

Sending to OS for Consultation

Ed

Ed Fogels | Environmental , Regulatory, and Lands Manager | Alaska  
Gasline Development Corporation | T (907) 330-6359 | C (907) 830-9107  
| [efogels@agdc.us](mailto:efogels@agdc.us)

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the recipient) any review, use, distribution, copying or disclosure by you or others is strictly prohibited. Please notify sender by reply email or telephone and delete and/or destroy this message and all attachments.

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]

**From:** Karen Clark

**Sent:** 2018-02-14T15:58:02-05:00

**Importance:** Normal

**Subject:** FY19 green book FWS

**Received:** 2018-02-14T15:59:07-05:00

[ATT00001.txt](#)

[FY2019 FWS Budget Justification.pdf](#)

<https://www.fws.gov/budget/2019/FY2019%20FWS%20Budget%20Justification.pdf>

**To:** Herbert Frost[bert\_frost@nps.gov]; Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Mouritsen[kmourits@blm.gov]  
**Cc:** Cooper, Debora[Debora\_Cooper@nps.gov]; Brooke Merrell[Brooke\_Merrell@nps.gov]; Mary Colligan[mary\_colligan@fws.gov]; Melissa Burns[melissa\_burns@fws.gov]; Ted Murphy[t75murph@blm.gov]; Serena Sweet[ssweet@blm.gov]; Grace Cochon[grace\_cochon@ios.doi.gov]  
**From:** Johnson, Philip  
**Sent:** 2018-02-16T11:49:41-05:00  
**Importance:** Normal  
**Subject:** Fwd: Air Quality and Visual & Noise whitepapers  
**Received:** 2018-02-16T11:56:46-05:00  
[Visual Resources and Noise AKLNG-6020-REG-YPW-DOC-00006.pdf](#)  
[FLAG AQRV Rev0A 1-17-18.pdf](#)

Sending to OS for Consultation



**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](mailto:philip_johnson@ios.doi.gov)

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

**From:** Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Date:** Fri, Feb 16, 2018 at 7:17 AM  
**Subject:** Fwd: Air Quality and Visual & Noise whitepapers  
**To:** "Johnson, Philip" <[philip\\_johnson@ios.doi.gov](mailto:philip_johnson@ios.doi.gov)>

Sending to OS for Consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

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

From: **Ed Fogels** <[EFogels@agdc.us](mailto:EFogels@agdc.us)>

Date: Tue, Feb 13, 2018 at 6:11 PM

Subject: Air Quality and Visual & Noise whitepapers

To: "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>

Sending to OS for Consultation



Ed

**Ed Fogels** | Environmental , Regulatory, and Lands Manager | Alaska Gasline Development Corporation | T (907) 330-6359 | C (907) 830-9107 | [efogels@agdc.us](mailto:efogels@agdc.us)

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**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-02-20T17:11:02-05:00  
**Importance:** Normal  
**Subject:** Updated - 02.12.18 Polar Bear Research Briefing Paper  
**Received:** 2018-02-20T17:11:09-05:00  
02.12.18 BP Polar Bear Research - Updated 02.20.18.docx  
02.12.18 BP Polar Bear Research - Updated 02.20.18.pdf

Attached in Word and PDF.

Thanks so much!

Amee

--

*Amee Howard*

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Patel, Kashyap[kashyap\_patel@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-20T20:03:24-05:00  
**Importance:** Normal  
**Subject:** Re: Scanned image from MX-2600N  
**Received:** 2018-02-20T20:03:26-05:00  
02.12.18 BP Polar Bear Research - Updated 02.20.18.docx

Kashyap,

The brief has been updated per the questions you forwarded.

Greg

On Tue, Feb 20, 2018 at 10:41 AM, Patel, Kashyap <kashyap\_patel@fws.gov> wrote:

Hi Greg,

Greg had the attached written questions on the 1st page of the 1002 BP. Are you able to edit it to answer Greg's question(s)?

Very many thanks,

Kashyap

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

**From:** WSFR\_Sharp2600@fws.gov **WSFR\_Sharp2600@** <fws.gov>

**Date:** Tue, Feb 20, 2018 at 2:57 PM

**Subject:** Scanned image from MX-2600N

**To:** kashyap\_patel@fws.gov

**Reply to:** WSFR\_Sharp2600@fws.gov <WSFR\_Sharp2600@fws.gov>

**Device Name:** WSFR Sharp MX-2600N

**Device Model:** MX-2600N

**Location:** MIB 3342

**File Format:** PDF (Medium)

**Resolution:** 200dpi x 200dpi

Attached file is scanned image in PDF format.

Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.

Adobe(R)Reader(R) can be downloaded from the following URL:

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

--

[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service  
| 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-4923 |

**To:** Devaris, Aimee[adevaris@usgs.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-20T20:20:11-05:00  
**Importance:** Normal  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**Received:** 2018-02-20T20:20:15-05:00

Thank you Aimee

On Tue, Feb 20, 2018 at 2:18 PM, Devaris, Aimee <adevaris@usgs.gov> wrote:

Sending to USGS for  
Consultation

Aimee

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

**From:** Devaris, Aimee <adevaris@usgs.gov>  
**Date:** Tue, Feb 20, 2018 at 2:14 PM  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**To:** William Werkheiser <whwerkhe@usgs.gov>, "Applegate, David" <applegate@usgs.gov>  
**Cc:** "Kinsinger, Anne" <akinsinger@usgs.gov>, Geoffrey Plumlee <gplumlee@usgs.gov>, John Haines <jhaines@usgs.gov>, "Beard, Douglas" <dbeard@usgs.gov>, Christian Zimmerman <czimmerman@usgs.gov>, John Pearce <jpearce@usgs.gov>, Judy Nowakowski <jnowakowski@usgs.gov>, "Taylor, Joanne" <jctaylor@usgs.gov>

Sending to USGS for  
Consultation

Aimee

--  
Aimee M. Devaris  
Regional Director

U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**To:** Mary Colligan[mary\_colligan@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-20T20:20:27-05:00  
**Importance:** Normal  
**Subject:** Fwd: Updated information on anticipated USGS products in/near 1002 Area  
**Received:** 2018-02-20T20:20:29-05:00  
USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx

FYI

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

**From:** Devaris, Aimee <adevaris@usgs.gov>  
**Date:** Tue, Feb 20, 2018 at 2:18 PM  
**Subject:** Fwd: Updated information on anticipated USGS products in/near 1002 Area  
**To:** Karen Mouritsen <kmourits@blm.gov>, Gregory Siekaniec <greg\_siekaniec@fws.gov>

**Sending to USGS for Consultation**

[Redacted]

Aimee

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

**From:** Devaris, Aimee <adevaris@usgs.gov>  
**Date:** Tue, Feb 20, 2018 at 2:14 PM  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**To:** William Werkheiser <whwerkhe@usgs.gov>, "Applegate, David" <applegate@usgs.gov>  
**Cc:** "Kinsinger, Anne" <akinsinger@usgs.gov>, Geoffrey Plumlee <gplumlee@usgs.gov>, John Haines <jhaines@usgs.gov>, "Beard, Douglas" <dbeard@usgs.gov>, Christian Zimmerman <czimmerman@usgs.gov>, John Pearce <jpearce@usgs.gov>, Judy Nowakowski <jnowakowski@usgs.gov>, "Taylor, Joanne" <jctaylor@usgs.gov>

**Sending to USGS for Consultation**

[Redacted]

Aimee

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**To:** Karen Mouritsen[kmourits@blm.gov]  
**Cc:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Aimee Devaris  
**Sent:** 2018-02-21T10:24:07-05:00  
**Importance:** Normal  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**Received:** 2018-02-21T10:24:27-05:00

Hi Karen,  
Sure I see no reason not to.

Aimee

Sent from my iPhone

On Feb 21, 2018, at 6:14 AM, Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Thank you Aimee. I have a telephone check-in call with my assistant secretary at 12:30 today. Is it ok if I forward this to that office?  
Thank you.

Karen Mouritsen  
Acting State Director for Alaska  
Phone 907-271-5080  
Cell 202-329-2030

On Feb 20, 2018, at 2:18 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

Sending to USGS for  
consultation

[REDACTED]

Aimee

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

**From:** Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** Tue, Feb 20, 2018 at 2:14 PM  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**To:** William Werkheiser <[whwerkhe@usgs.gov](mailto:whwerkhe@usgs.gov)>, "Applegate, David" <[applegate@usgs.gov](mailto:applegate@usgs.gov)>  
**Cc:** "Kinsinger, Anne" <[akinsinger@usgs.gov](mailto:akinsinger@usgs.gov)>, Geoffrey Plumlee <[gplumlee@usgs.gov](mailto:gplumlee@usgs.gov)>, John Haines <[jhaines@usgs.gov](mailto:jhaines@usgs.gov)>, "Beard, Douglas" <[dbeard@usgs.gov](mailto:dbeard@usgs.gov)>, Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>, John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Judy Nowakowski <[jnowakowski@usgs.gov](mailto:jnowakowski@usgs.gov)>, "Taylor, Joanne"



<jctaylor@usgs.gov>

Sending to USGS for  
Consultation

[Redacted content]

Aimee

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

<USGS 1002 ongoing work to WS w pubs estimates for Dep  
Sec.xlsx>

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Taylor, Eric  
**Sent:** 2018-02-21T10:54:27-05:00  
**Importance:** Normal  
**Subject:** Re: Need final Writer/Reviewer designation by 130pm today for your staff  
**Received:** 2018-02-21T10:54:37-05:00

Thanks Greg. We'll make this work.

Pretty cool that Jessica Diggins and Kikkan Randall won the gold in the women's xc team sprint relay. Madeleine flies to Fairbanks this morning to compete in the State xc championships and while she will never compete at the Olympic level, it's none the less an inspiration.

Here's the link to the story....it will make you smile. <http://www.msn.com/en-us/sports/winter-olympics/cross-country-skiing-diggins-delivers-long-awaited-us-gold/ar-BBJoXNQ?li=BBnbfL&ocid=iehp>

Eric

On Wed, Feb 21, 2018 at 4:57 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Eric,

Thank you for the note. I believe we have a path forward that will provide the needed writing, review and compilation of the migratory bird section of the environmental planning.

I appreciate your looking out for field seasons and employees. We also need to continue with our conservation efforts for the Arctic Refuge coastal plain when we have unexpected demands due to legislated requirements that are on a fast track assignment.

Your willingness to balance the need for assessment survey data needed for completing the analysis is appreciated. It will be a heavy lift for many during this effort.

Greg

Sent from my iPhone

On Feb 20, 2018, at 7:14 PM, Taylor, Eric <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)> wrote:

Hello  
Greg

Please see the email from Wendy describing six MBM personnel as Writers of migratory bird sections in the EIS. I followed this up with a call and meeting with Wendy to discuss. When I discussed my concerns, she suggested I see you for a recommendation; thus, our quick chat this meeting and your follow up call with Steve.

MBM has field projects scheduled and we're in the process of interviewing field technicians and Directorate fellows; scheduling survey aircraft; and arranging travel, housing and other logistics. Further, writing sections of an EIS that will likely be the most scrutinized environmental assessment in recent times is a substantive task whereby authors must be able to defend and justify their assessments. (If the Arctic Refuge CCP received 600,000 comments, one can imagine what the 1002 oil and gas EIS will

generate.) Finally, because a draft EIS is scheduled by September 2018, authors have 6 months to compile data, review literature, conduct analyses, and write the EIS sections. This will jeopardize if not essentially eliminate the field season.

All that aside, I have maintained our shop will provide our survey data in whatever format(s) desired, conduct analyses, produce maps, and serve as reviewers. However, I would prefer another FWS Program or contractor take the lead in writing EIS migratory bird sections.

I'll end in saying we all did not see this happening a few months ago. Our program is most willing to engage in the EIS and support Steve's team. If indeed we need to cancel our surveys, field projects, and other responsibilities, I will do so. However, I am trying to find an alternative whereby MBM does not assume authorship responsibilities of EIS migratory bird sections.

Eric

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Date: Tue, Feb 20, 2018 at 10:55 AM

Subject: Need final Writer/Reviewer designation by 130pm today for your staff

To: Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>

Hi Eric,

This slipped in while you were away and I'd like to get it back to BLM at our meeting today. It is simply confirming that staff on the list from FWS are confirmed for their role in the EIS and committed to doing what is needed, when it is needed. Clearly this is not ideal for any staff with field work, but I hope that we will know what we need to do by mid-March and experts can get a jump on their sections.

What I need from you is confirmation that you, Rick, Jim, Steve, Michael and Julian can serve as Writers for Bird sections by area of expertise and Reviewers of other bird sections as needed.

Christopher Latty (W/R), Roy Churchwell (W/R) Eric Taylor , Rick Lanctot\*, Jim Johnson, Steve Lewis, Michael Swaim, Julian Fischer, Ted Swem (R)

Thanks!

0000011879

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**To:** Lor, Socheata[socheata\_lor@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-21T12:32:13-05:00  
**Importance:** Normal  
**Subject:** Re: Role of the FWS in the Oil and Gas Program at ANWR  
**Received:** 2018-02-21T12:32:21-05:00

Larry,  
Do you have time for a call today?

Thanks,

Greg

907-250-1787

Sent from my iPhone

On Jan 30, 2018, at 1:28 PM, Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)> wrote:

Greg,

Stephanie is working on the response (bullets) so that we can go over them with you when we meet. I just sent Tauline an email to ask for a time with you and Karen.

Soch

~~~~~  
*Socheata Lor, Ph.D.*  
*Acting 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, Jan 26, 2018 at 2:56 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Soch,  
Your popularity grows by leaps and bounds...

We should gather and discuss what we are thinking based on Larry providing us this feedback. (b) (5) DPP, (b) (5) ACP

Perhaps I should schedule a call with Larry and us once we have an idea of how we wish

to proceed so we can discuss if it fits with his sense of where this is headed and if he foresees any pitfalls along the way.

(b) (5) DPP, (b) (5) ACP

greg

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

From: **Mellinger, Larry** <larry.mellinger@sol.doi.gov>

Date: Fri, Jan 26, 2018 at 1:53 PM

Subject: Role of the FWS in the Oil and Gas Program at ANWR

To: Greg Siekaniec <greg\_siekaniec@fws.gov>

Cc: Jim Kurth <jim\_kurth@fws.gov>, "Martinez, Cynthia"

<cynthia\_martinez@fws.gov>, "Goeken, Richard"

<richard.goeken@sol.doi.gov>, "Romanik, Peg" <peg.romanik@sol.doi.gov>,

Benjamin Jesup <benjamin.jesup@sol.doi.gov>

Greg:

As you are aware, (b) (5) DPP, (b) (5) ACP

[Redacted]

(b) (5) DPP, (b) (5) ACP  
[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Any guidance you could give me would be helpful, and I would be glad to discuss this further with you at your convenience.

Thanks.

Larry

--  
Lawrence P. Mellinger  
Attorney-Advisor

Division of Parks and Wildlife  
Office of the Solicitor  
U.S. Department of the Interior  
410-252-5442  
202-208-3062



**To:** mary\_colligan@fws.gov[mary\_colligan@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-21T14:31:57-05:00  
**Importance:** Normal  
**Subject:** Fwd: For the 4:30 Eastern time mtg with ASLM  
**Received:** 2018-02-21T14:32:37-05:00  
[mime-attachment.html](#)  
[ATT00001.htm](#)  
[USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx](#)  
[ATT00002.htm](#)

FYI this is where the deputy secretary raised question about FWS research and reports that we did not make evident.

Let's discuss when you have a minute.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Date:** February 21, 2018 at 9:53:11 AM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Fwd: For the 4:30 Eastern time mtg with ASLM

This was the list DB talked to me about.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

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

**From:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Date:** Wed, Feb 21, 2018 at 11:26 AM  
**Subject:** For the 4:30 Eastern time mtg with ASLM  
**To:** Jeff Brune <[jbrune@blm.gov](mailto:jbrune@blm.gov)>, [pmali@blm.gov](mailto:pmali@blm.gov), Michael Nedd <[mnedd@blm.gov](mailto:mnedd@blm.gov)>  
**Cc:** Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>, [mnhayes@blm.gov](mailto:mnhayes@blm.gov), [adevaris@usgs.gov](mailto:adevaris@usgs.gov),  
Stephen Wackowski <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>

Sending to BLM for consultation

0000011885

Sending to BLM for consultation

Sent from my iPad

Begin forwarded message:

**From:** "Devaris, Aimee" <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** February 20, 2018 at 2:18:31 PM AKST  
**To:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Gregory Siekaniec  
<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Fwd: Updated information on anticipated USGS products in/near  
1002 Area

Sending to USGS for consultation

Aimee

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

**From:** Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Date:** Tue, Feb 20, 2018 at 2:14 PM  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**To:** William Werkheiser <[whwerkhe@usgs.gov](mailto:whwerkhe@usgs.gov)>, "Applegate, David"  
<[applegate@usgs.gov](mailto:applegate@usgs.gov)>  
**Cc:** "Kinsinger, Anne" <[akinsinger@usgs.gov](mailto:akinsinger@usgs.gov)>, Geoffrey Plumlee  
<[gplumlee@usgs.gov](mailto:gplumlee@usgs.gov)>, John Haines <[jhaines@usgs.gov](mailto:jhaines@usgs.gov)>, "Beard,  
Douglas" <[dbeard@usgs.gov](mailto:dbeard@usgs.gov)>, Christian Zimmerman  
<[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>, John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>, Judy  
Nowakowski <[jnowakowski@usgs.gov](mailto:jnowakowski@usgs.gov)>, "Taylor, Joanne"  
<[jctaylor@usgs.gov](mailto:jctaylor@usgs.gov)>

Sending to USGS for consultation

Aimee

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

**To:** Clark, Karen[karen\_clark@fws.gov]  
**Cc:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**From:** Selbo, Sarena  
**Sent:** 2018-02-21T15:48:39-05:00  
**Importance:** Normal  
**Subject:** talking points for your Deputy meeting  
**Received:** 2018-02-21T15:48:48-05:00

Hi Karen. Seth just gave us a heads up that the Deputies Team may have an agenda topic added about the status of SA in each region. I have included a couple talking points that you could use below if you like. Please let me know if you have any questions. Thanks!

- Partners from all 5 AK LCCs agreed in November to keep the collaboratives active regardless of FWS funding. There is a transition team working towards that goal.

- Two LCCs have moved coordinator roles outside of the FWS (Northwest Boreal and Aleutian and Bering Sea Islands).

- All Science Applications staff are working on regional priorities and/or core program priorities (i.e. landscape conservation design, coastal resilience planning, invasive species, engagement with native communities, etc)

- As an example, Arctic LCCs staff have pivoted to lead coordination and science planning for the Arctic National Wildlife Refuge coastal plain oil development.

- Sarena Selbo, SA ARD will be transferring out of the region in May. We are currently having discussion as an RDT about filling highest priority vacancies in the region and where SA staff may fit those needs if interested.

--

Sarena M. Selbo  
Assistant Regional Director  
Science Applications - Alaska Region  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, Alaska 99503  
907-786-3380

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-02-21T17:29:47-05:00  
**Importance:** Normal  
**Subject:** Re: For the 4:30 Eastern time mtg with ASLM  
**Received:** 2018-02-21T17:29:54-05:00

Greg This is interesting. From what Steve had said, I have envisioned this to be much a more inclusive and exhaustive inventory. A spreadsheet like this of work in the 1002 area should not be that difficult for us to develop and maintain. I can add it to our agenda for our internal discussion on Friday if you would like. I assume you won't be there given the FSB meeting. But if you want us to develop and maintain something like this, I can pitch that to the group and we can come up with a plan.

Thanks,  
Mary

On Wed, Feb 21, 2018 at 10:31 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

FYI this is where the deputy secretary raised question about FWS research and reports that we did not make evident.  
Let's discuss when you have a minute.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Date:** February 21, 2018 at 9:53:11 AM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Fwd: For the 4:30 Eastern time mtg with ASLM

This was the list DB talked to me about.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

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

**From:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Date:** Wed, Feb 21, 2018 at 11:26 AM  
**Subject:** For the 4:30 Eastern time mtg with ASLM  
**To:** Jeff Brune <[jbrune@blm.gov](mailto:jbrune@blm.gov)>, [pmali@blm.gov](mailto:pmali@blm.gov), Michael Nedd <[mnedd@blm.gov](mailto:mnedd@blm.gov)>

Cc: Ted Murphy <t75murph@blm.gov>, mnhayes@blm.gov, adevaris@usgs.gov,  
Stephen Wackowski <stephen\_wackowski@ios.doi.gov>

Sending to BLM for consultation

Sent from my iPad

Begin forwarded message:

**From:** "Devaris, Aimee" <adevaris@usgs.gov>  
**Date:** February 20, 2018 at 2:18:31 PM AKST  
**To:** Karen Mouritsen <kmourits@blm.gov>, Gregory Siekaniec  
<greg\_siekaniec@fws.gov>  
**Subject:** Fwd: Updated information on anticipated USGS products in/near  
1002 Area

Sending to USGS for consultation

Aimee

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

**From:** Devaris, Aimee <adevaris@usgs.gov>  
**Date:** Tue, Feb 20, 2018 at 2:14 PM  
**Subject:** Re: Updated information on anticipated USGS products in/near 1002 Area  
**To:** William Werkheiser <whwerkhe@usgs.gov>, "Applegate, David"  
<applegate@usgs.gov>  
**Cc:** "Kinsinger, Anne" <akinsinger@usgs.gov>, Geoffrey Plumlee  
<gplumlee@usgs.gov>, John Haines <jhaines@usgs.gov>, "Beard,  
Douglas" <dbeard@usgs.gov>, Christian Zimmerman  
<czimmerman@usgs.gov>, John Pearce <jpearce@usgs.gov>, Judy  
Nowakowski <jnowakowski@usgs.gov>, "Taylor, Joanne"  
<jctaylor@usgs.gov>

Sending to USGS for consultation

Aimee

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055

--

**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

**To:** Howard, Ameer[amee\_howard@fws.gov]  
**Cc:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Patel, Kashyap  
**Sent:** 2018-02-21T17:38:17-05:00  
**Importance:** Normal  
**Subject:** Re: Information Memorandum for Deputy Secretary - Update on Polar Bear Research  
**Received:** 2018-02-21T17:38:55-05:00

Thank you! I appreciate you confirming, and will take this the rest of the way.

On Wed, Feb 21, 2018 at 5:27 PM, Howard, Ameer <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Kashyap,

Greg is at an offsite meeting and asked that I respond to your earlier inquiry. We have reviewed the Google doc and agree it represents the information provided from the Region 7 team. We do not have any additional information to offer for Section III - Actions Taken by Hallway.

Thank you for your coordination and assistance. Please let us know if we can provide anything further.

Best,  
Ameer

On Wed, Feb 21, 2018 at 10:23 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Ameer,  
Can you verify and address the question on section III?

Thank you,

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Patel, Kashyap" <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)>  
**Date:** February 21, 2018 at 10:20:50 AM AKST  
**To:** "Siekaniec, Greg" <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Cc:** "Morris, Charisa" <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
**Subject:** Re: Scanned image from MX-2600N

Hi Greg,



I apologize, but I need to iterate one more round with you.

Because this BP was a DepSec request, I should have provided you the new requested format as a template. I went ahead and copied your BP content in but:

- 1) I want to make sure it's good with you, and;
- 2) see if you had any language for Section III. If not, I can see what I can find out from folks here.

[https://docs.google.com/document/d/1euBaBiYe8m28P28LNa3eGe1jLVJICH6tJtg5g0T3cmc/edit?usp\\_sharing](https://docs.google.com/document/d/1euBaBiYe8m28P28LNa3eGe1jLVJICH6tJtg5g0T3cmc/edit?usp_sharing)

Thanks for your patience!  
Kashyap

On Tue, Feb 20, 2018 at 8:03 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Kashyap,

The brief has been updated per the questions you forwarded.

Greg

On Tue, Feb 20, 2018 at 10:41 AM, Patel, Kashyap <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)> wrote:

Hi Greg,  
Greg had the attached written questions on the 1st page of the 1002 BP. Are you able to edit it to answer Greg's question(s)?

Very many thanks,  
Kashyap

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

From: [WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov) [WSFR\\_Sharp2600@](mailto:WSFR_Sharp2600@fws.gov) <[fws.gov](mailto:fws.gov)>

Date: Tue, Feb 20, 2018 at 2:57 PM

Subject: Scanned image from MX-2600N

To: [kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)

Reply to: [WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov) <[WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov)>

Device Name: WSFR Sharp MX-2600N

Device Model: MX-2600N

Location: MIB 3342

File Format: PDF (Medium)

Resolution: 200dpi x 200dpi

Attached file is scanned image in PDF format.

Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.

Adobe(R)Reader(R) can be downloaded from the following URL:

Adobe, the Adobe logo, Acrobat, the Adobe PDF logo, and Reader are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and other countries.

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

--

[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

--

[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

--

***Amee Howard***

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

--

[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

**To:** Karen Mouritsen[kmourits@blm.gov]; Greg Siekaniec[greg\_siekaniec@fws.gov]; Aimee Devaris[adevaris@usgs.gov]; James Kendall[james.kendall@boem.gov]; Mark Fesmire[mark.fesmire@bsee.gov]; Lynn Polacca[lynn.polacca@bia.gov]; Herbert Frost[bert\_frost@nps.gov]; Cynthia Jacobson[cynthia\_jacobson@fws.gov]; Gene Peltola[gene\_peltola@fws.gov]; Sara Longan[slongan@blm.gov]  
**Cc:** Travnicek, Andrea[andrea\_travnicek@ios.doi.gov]; Jason Larrabee[jason\_larrabee@ios.doi.gov]; Joseph Balash[joseph\_balash@ios.doi.gov]  
**From:** Wackowski, Stephen  
**Sent:** 2018-02-21T20:56:24-05:00  
**Importance:** Normal  
**Subject:** Arctic Science data call  
**Received:** 2018-02-21T20:56:29-05:00  
[USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx](#)

Sending to OS for consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

**To:** Taylor, Eric[eric\_taylor@fws.gov]  
**Cc:** Steve Berendzen[Steve\_Berendzen@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-22T01:16:47-05:00  
**Importance:** Normal  
**Subject:** Re: MBM roles in the Arctic Refuge 1002 EIS  
**Received:** 2018-02-22T01:16:49-05:00

Eric,

Thanks you for sending a note to employees and setting the expectation that we need to rise to the department and bureau priority of and planning for an oil and gas program on the coastal plain of Arctic Refuge.

Greg

Sent from my iPhone

On Feb 21, 2018, at 9:25 AM, Taylor, Eric <eric\_taylor@fws.gov> wrote:

Hello Greg and Steve -

My note to MBM Section Supervisors is below. If I have characterized something wrong, please tell me.

Thanks for working through this.

Eric

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

**From:** Taylor, Eric <eric\_taylor@fws.gov>  
**Date:** Wed, Feb 21, 2018 at 8:57 AM  
**Subject:** MBM roles in the Arctic Refuge 1002 EIS  
**To:** Julian Fischer <Julian\_Fischer@fws.gov>, Jordan Muir <Jordan\_Muir@fws.gov>, Jim A Johnson <Jim\_A\_Johnson@fws.gov>, Richard Lanctot <Richard\_Lanctot@fws.gov>, Kathy Kuletz <Kathy\_Kuletz@fws.gov>, Erik Osnas <erik\_osnas@fws.gov>, Tamara Zeller <Tamara\_Zeller@fws.gov>

Good Morning

I am writing to clarify Migratory Bird Management's roles in the Arctic Refuge 1002 Oil and Gas Lease Sale EIS because in the past few weeks, I've read conflicting notes about lead and authorship of waterfowl, land bird, shorebird, raptor and seabird sections. In an attempt to clarify expectations and responsibilities, I spoke with Steve Berendzen, Arctic Refuge Manager and met with Wendy Loya, Arctic Program Coordinator. Yesterday, when six MBM employees were identified as lead authors for EIS sections, I met with Greg and followed up with emails to Greg and Steve last night and this morning.

0000011896

The decision is that Migratory Bird Management will: (i) provide our survey data; (ii) conduct analyses, (iii) produce maps, and (iv) serve as reviewers. Writing EIS migratory bird sections will be the responsibility of the Arctic Refuge, Fisheries and Ecological Services, and/or a contractor. However, it is my expectation that our program will provide Arctic Refuge the support necessary to complete the EIS within the time frame set by the Department. If that means we are requested to provide additional assistance other than the four tasks I've outlined above, please make it happen. If you believe this is substantively impacting your current responsibilities and work load, please come see me.

I'll close by saying no one in the Fish and Wildlife Service expected the Arctic Refuge to be open to oil and gas leasing, exploration and development. Because this is a Department and Bureau priority, all Service Programs are expected to provide timely assistance. I believe we have a productive and reasonable path forward.

Please see me if you have questions or concerns.

Eric

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Jim Kurth[jim\_kurth@fws.gov]; Bud Cribley[bud\_cribley@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Kashyap Patel[kashyap\_patel@fws.gov]  
**From:** Morris, Charisa  
**Sent:** 2018-02-22T09:51:04-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic CCP  
**Received:** 2018-02-22T09:51:53-05:00

+ Jim and Bud

On Thu, Feb 22, 2018 at 7:41 AM, Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)> wrote:

Your schedule is a bear this week! Thanks for trying to connect yesterday. Greg is under the impression we can simply take out “old” language, and would not necessarily have to replace it with new language. This would remove the constraint of having to wait until specific new details emerge from BLM/NEPA analysis. Let me know if this approach is possible.

Thanks!

Charisa

Sent from my iPhone

On Feb 22, 2018, at 1:10 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Sorry we missed. I should have some information on your question soon. I have federal subsistence board meetings this week. Runs all day through Friday.

Wrapped up this evening at 8:30 pm.

Greg

Sent from my iPhone

On Feb 21, 2018, at 9:40 AM, Morris, Charisa <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)> wrote:

Giving you a call now. If I miss you, call me on my cell when you get a chance.

On Wed, Feb 21, 2018 at 12:11 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Hi Charisa,

We do not have a solid plan as of yet. We are still trying to determine if we can accompany the CCP revision in concert with the EIS for Leasing. As of now we still do not have a understanding of when the notice of intent will be published, how we might incorporate the ccp revision into the same notice or time frame, and if the revision is needed prior to or in concert with the EIS release

and/or how the geophysical permitting will be handled. There are still a lot of questions that need answers.

Right now I'm not part of the BLM/HQ discussions on how all this proceeds.

Greg

Sent from my iPhone

On Feb 21, 2018, at 7:59 AM, Morris, Charisa <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)> wrote:

Good morning, Greg and Karen!  
Greg inquired about the status of the ANWR CCP during this morning's check-in; he has the intention of sending something up for review within the next month or two, and needs to know if we're on track to align with that timeline. Please send a timeline, along with a summary of what you plan to modify, by Friday COB. Let me know if this deadline is unreasonable (I'm hoping you already have this information on hand).

I hope all's been well up north (and in sunny San Diego, for Karen)!  
Charisa

--

[Charisa\\_Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348](#) | [Washington, DC 20240](#) | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

--

[Charisa\\_Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348](#) | [Washington, DC 20240](#) | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

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[Charisa\\_Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348](#) | [Washington, DC 20240](#) | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

**To:** Howard, Ameer[amee\_howard@fws.gov]  
**Cc:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Patel, Kashyap  
**Sent:** 2018-02-22T12:13:04-05:00  
**Importance:** Normal  
**Subject:** Re: Information Memorandum for Deputy Secretary - Update on Polar Bear Research  
**Received:** 2018-02-22T12:13:44-05:00

Hi Ameer,  
I apologize I overlooked the attachment mentioned in the intro. Do you have that handy, or a DCN # if not?

Thanks,  
Kashyap

On Wed, Feb 21, 2018 at 5:27 PM, Howard, Ameer <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Kashyap,  
Greg is at an offsite meeting and asked that I respond to your earlier inquiry. We have reviewed the Google doc and agree it represents the information provided from the Region 7 team. We do not have any additional information to offer for Section III - Actions Taken by Hallway.

Thank you for your coordination and assistance. Please let us know if we can provide anything further.

Best,  
Ameer

On Wed, Feb 21, 2018 at 10:23 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Ameer,  
Can you verify and address the question on section III?

Thank you,

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Patel, Kashyap" <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)>  
**Date:** February 21, 2018 at 10:20:50 AM AKST  
**To:** "Siekaniec, Greg" <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>



**Cc:** "Morris, Charisa" <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
**Subject: Re: Scanned image from MX-2600N**

Hi Greg,  
I apologize, but I need to iterate one more round with you.

Because this BP was a DepSec request, I should have provided you the new requested format as a template. I went ahead and copied your BP content in but:

- 1) I want to make sure it's good with you, and;
- 2) see if you had any language for Section III. If not, I can see what I can find out from folks here.

[https://docs.google.com/document/d/1euBaBiYe8m28P28LNa3eGe1jLVJICH6tJtg5g0T3cmc/edit?usp\\_sharing](https://docs.google.com/document/d/1euBaBiYe8m28P28LNa3eGe1jLVJICH6tJtg5g0T3cmc/edit?usp_sharing)

Thanks for your patience!  
Kashyap

On Tue, Feb 20, 2018 at 8:03 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Kashyap,

The brief has been updated per the questions you forwarded.

Greg

On Tue, Feb 20, 2018 at 10:41 AM, Patel, Kashyap <[kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)> wrote:

Hi Greg,  
Greg had the attached written questions on the 1st page of the 1002 BP. Are you able to edit it to answer Greg's question(s)?

Very many thanks,  
Kashyap

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

From: [WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov) **WSFR\_Sharp2600@** <[fws.gov](mailto:fws.gov)>

Date: Tue, Feb 20, 2018 at 2:57 PM

Subject: Scanned image from MX-2600N

To: [kashyap\\_patel@fws.gov](mailto:kashyap_patel@fws.gov)

Reply to: [WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov) <[WSFR\\_Sharp2600@fws.gov](mailto:WSFR_Sharp2600@fws.gov)>

Device Name: WSFR Sharp MX-2600N

Device Model: MX-2600N

Location: MIB 3342

File Format: PDF (Medium)

Resolution: 200dpi x 200dpi

Attached file is scanned image in PDF format.

Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.

Adobe(R)Reader(R) can be downloaded from the following URL:

Adobe, the Adobe logo, Acrobat, the Adobe PDF logo, and Reader are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and other countries.

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

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[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

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[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

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***Amee Howard***

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

--

[Kashyap\\_Patel@fws.gov](mailto:Kashyap_Patel@fws.gov) | acting Deputy Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | [1849 C Street NW, Room 3348 | Washington, DC 20240](#) | (202) 208-4923 |

0000011902

**To:** amee\_howard@fws.gov[amee\_howard@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-23T12:15:37-05:00  
**Importance:** Normal  
**Subject:** Fwd: Arctic CCP  
**Received:** 2018-02-23T12:15:44-05:00  
[ATT00001.htm](#)  
[Draft Arctic CCP Decision Memorandum 02232018.docx](#)

Amee,

This is the brief put together for the Arctic Refuge CCP revision due to recent Tax legislation I'm not sure we are ready for a decision brief but an informational brief. We are not certain this would be acceptable to our principle director.

Let's discuss when we can find a few minutes. I need to send COB today or early Monday.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
**Date:** February 23, 2018 at 7:57:05 AM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Cc:** Amee Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>  
**Subject:** Re: Arctic CCP

Greg,

Attached is the BP. Let me know if you have questions or edits.

Soch

~~~~~

*Socheata Lor, Ph.D.  
Acting 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 Thu, Feb 22, 2018 at 8:30 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Soch,  
Who should I work with to see this through. HQ requested by Monday.

Thanks,

Greg

Sent from my iPhone

On Feb 22, 2018, at 7:57 AM, Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)> wrote:

Hi Greg,

Yes, we'll put it into a BP. These thoughts have not been shared with the planning team (BLM included). Just thoughts among Stephanie, Ella, myself; and yesterday, we discussed within our FWS POC working group. We can discuss further with you on Friday at our bi weekly meeting.

Soch

~~~~~  
*Socbeata Lor, Ph.D.*  
*Acting 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 Thu, Feb 22, 2018 at 7:21 AM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Thank you Soch. Can you put this into a brief for our director?  
Also, I would like to share with BLM. Or, have we been sharing these thoughts via the planning team?  
Greg

Sent from my iPhone

On Feb 21, 2018, at 3:11 PM, Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)> wrote:

Hi Greg,

Stephanie has been in communication with Ella Wagner, the Service's NEPA expert, and here are their collective recommendations, knowing what we know now:

- State in the BLM EIS that one of the purpose and needs of the action is to meet the new purpose of the refuge system. Also, somewhere in the proposed action state that the refuge is revising the CCP to come into compliance with the new legislation and this leasing action.
- Write a Memorandum, or a note to the file that states we are revising the CCP to align with the new legislation to open the 1002 area of the Arctic to leasing. Explain that BLM will be the lead agency on the lease and the role of the Service, if/when we know, in management of that area. Outline topics/issues that we are aware of currently that will need to be revised in the CCP in order to not conflict with leasing. Then explain how the impacts of the revision of the CCP to align with the legislation are being analyzed in BLM EIS, in which we are a cooperating agency. Also, explain in that Memorandum that we will further revise the CCP and conduct further environmental analysis in compliance with NEPA for the 1002 area (only, not the entire refuge) when more information is available on the time, place, and manner of those leases and how they will impact the refuge.

If you'd like more details, let me know.

Soch

~~~~~

*Socbeata Lor, Ph.D.*  
*Acting 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*

~~~~~

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<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Soch,

I'm being asked if we have figured out our approach to amending the Arctic Refuge CCP.

Do we have any thoughts pulled together as to what we need to do to begin? I know originally we were wanting to know what BLM is proposing and whether we can blend into the overall process.

Can you discuss with planning folks?

Thanks,

Greg  
Sent from my iPhone

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-02-23T12:56:22-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic CCP  
**Received:** 2018-02-23T12:57:07-05:00  
02.23.18 Draft - Arctic CCP Revision Update.docx

Hi Greg,

Here is the Info version of the Arctic CCP Revision Update BP. Let me know if you would like me to run it by Soch. We may need add some contacts for BLM or not. I am heading into the 1002 bi-weekly to listen in.

Thanks so much!  
Amee

On Fri, Feb 23, 2018 at 8:15 AM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

Amee,

This is the brief put together for the Arctic Refuge CCP revision due to recent Tax legislation I'm not sure we are ready for a decision brief but an informational brief. We are not certain this would be acceptable to our principle director.

Let's discuss when we can find a few minutes. I need to send COB today or early Monday.

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Sent from my iPhone

Begin forwarded message:

**From:** "Lor, Socheata" <socheata\_lor@fws.gov>  
**Date:** February 23, 2018 at 7:57:05 AM AKST  
**To:** Greg Siekaniec <greg\_siekaniec@fws.gov>  
**Cc:** Amee Howard <amee\_howard@fws.gov>  
**Subject:** Re: Arctic CCP

Greg,

Attached is the BP. Let me know if you have questions or edits.

Soch

~~~~~  
*Socheata Lor, Ph.D.*

*Acting 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*

~~~~~

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Sent from my iPhone

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Soch

~~~~~

*Socheata Lor, Ph.D.  
Acting 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*

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Also, I would like to share with BLM. Or, have we been sharing  
these thoughts via the planning team?

Greg

Sent from my iPhone

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Hi Greg,

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- State in the BLM EIS that one of the purpose and needs of the action is to meet the new purpose of the refuge system. Also, somewhere in the proposed action state that the refuge is revising the CCP to come into compliance with the new legislation and this leasing action.
- Write a Memorandum, or a note to the file that states we are revising the CCP to align with the new legislation to open the 1002 area of the Arctic to leasing. Explain that BLM will be the lead agency on the lease and the role of the Service, if/when we know, in management of that area. Outline topics/issues that we are aware of currently that will need to be revised in the CCP in order to not conflict with leasing. Then explain how the impacts of the revision of the CCP to align with the legislation are being analyzed in BLM EIS, in which we are a cooperating agency. Also, explain in that Memorandum that we will further revise the CCP and conduct further environmental analysis in compliance with NEPA for the 1002 area (only, not the entire refuge) when more information is available on the time, place, and manner of those leases and how they will impact the refuge.

If you'd like more details, let me know.

Soch

~~~~~

*Socheata Lor, Ph.D.*  
*Acting 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*  
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<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Soch,

I'm being asked if we have figured out our approach to amending the Arctic Refuge CCP.

Do we have any thoughts pulled together as to what we need to do to begin? I know originally we were wanting to know what BLM is proposing and whether we can blend into the overall process.

Can you discuss with planning folks?

Thanks,

Greg  
Sent from my iPhone

--  
***Amea Howard***  
*Congressional and State Liaison*  
U.S. Fish & Wildlife Service  
Anchorage, Alaska  
Office: (907)786-3509  
Mobile: (907)229-8575  
<https://www.fws.gov/alaska/>  
"Day in the Office"

**To:** Howard, Ameer[amee\_howard@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-26T16:27:20-05:00  
**Importance:** Normal  
**Subject:** Fwd: Arctic Refuge CCP Brief per our discussion  
**Received:** 2018-02-26T16:27:33-05:00

FYI - for future since we have already sent the brief to Charisa.  
greg

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

**From:** Berendzen, Steve <steve\_berendzen@fws.gov>  
**Date:** Mon, Feb 26, 2018 at 11:59 AM  
**Subject:** Re: Arctic Refuge CCP Brief per our discussion  
**To:** "Siekaniec, Greg" <greg\_siekaniec@fws.gov>  
**Cc:** Joanna Fox <joanna\_fox@fws.gov>

Thanks, Greg - in addition to the Wilderness Stewardship and Visitor Use plan, the Refuge Inventory and Monitoring Plan was prioritized with equal importance. We have a couple suggested revisions for the background section - the first paragraph has the Inventory and Monitoring included, and in the last paragraph, we identified relevance of the Hulahula River as follows:

In 2015, the Record of Decision (ROD) for the Arctic Refuge CCP/EIS was signed. The preferred alternative was Alternative E which adopted the goals and objectives and the revised management policies and guidelines outlined in Chapter 2. Specifically, it recommended the Brooks Range, Porcupine Plateau, and the Coastal Plain Wilderness Study Areas for Wilderness designation; recommended the Atigun, Hulahula, Kongakut, and Marsh Fork Canning Rivers for inclusion in the National Wild and Scenic Rivers System; directed the Refuge to initiate Inventory and Monitoring, Visitor Use Management, and Wilderness Stewardship step-down plans; and provided interim management measures for the Kongakut River.

Following the release of the Final Arctic Refuge CCP/EIS and ROD, President Obama forwarded the proposed Wilderness and Wild and Scenic River designations to Congress. Congress did not act on the proposal.

In December 2017, the Tax Cuts and Jobs Act (Tax Act) was passed adding a fifth purpose to Alaska National Lands Conservation Act (ANILCA) for Arctic National Wildlife Refuge to provide for an oil and gas program on the Coastal Plain. The "Coastal Plain" cited in the Tax Act and in the Coastal Plain Wilderness Study Area proposal are the same. and the Hulahula River, which was recommended for inclusion in the National Wild and Scenic Rivers System, flows through the Coastal Plain.

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

On Mon, Feb 26, 2018 at 11:04 AM, Siekaniec, Greg <greg\_siekaniec@fws.gov> wrote:

FYI

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

**From:** Siekaniec, Greg <greg\_siekaniec@fws.gov>  
**Date:** Mon, Feb 26, 2018 at 8:12 AM

Subject: Fwd: Arctic Refuge CCP Brief per our discussion  
To: "Howard, Ameer" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>

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

From: **Siekaniiec, Greg** <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>  
Date: Fri, Feb 23, 2018 at 5:17 PM  
Subject: Arctic Refuge CCP Brief per our discussion  
To: Charisa Morris <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>

Charisa,

We wrapped this up this afternoon as we discussed. Please provide for the Monday conference call that I note has been scheduled.

Thank you,

greg

**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]; Leonetti, Crystal[crystal\_leonetti@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-02-26T19:43:23-05:00  
**Importance:** Normal  
**Subject:** Fwd: Urgent Department Request: Briefing papers request for Deputy Secretary/ASLM visit  
**Received:** 2018-02-26T19:44:26-05:00  
[BP ASTAC Communications Tower ARH .docx](#)  
[BP ATV Use On Arctic NWR ARH.docx](#)  
[BP Polar Bear Science-Research Update ARH.docx](#)  
[BP Polar Bear Viewing Management ARH.docx](#)  
[BP Subsistence Moose Hunt - Kaktovik ARH.docx](#)

Hi Greg,

Here are the draft briefing papers that we have to fulfill Steve Wackowski's request. In his request he listed " Any ongoing issues with ICAS or NVB" and directed the question to us and BLM and BIA. Below Mary responded with an update, however it may not warrant a briefing paper. Please take a look at Mary's response and the draft documents attached below. Steve's request list is also below with FWS relevant briefing papers highlighted. No one had reports of recent interactions with Arctic Village. I am double checking with OSM to see if anything came up at the recent Eastern Interior Regional Advisory Council meeting.

Let me know if you have edits.

Thanks so much!  
Amee

On Thu, Feb 22, 2018 at 8:56 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Amee I have attached an updated briefing paper on the FLIR surveys.

Steve's list includes "Any ongoing issues with ICAS or NVB" I am not sure if these are worth including or not, but for your consideration:

NVB & NSB: The Native Village of Barrow is the last of the 15 polar bear hunting villages to pass a resolution to adopt the constitution for the Alaska Nannuut Co Management Council, the successor entity to the ANC. The NVB still has to designate their representative to the ANCC. Charlie Brower is the Executive Director of the Tribal Council for the NVB. He is the former Chair of the ANC and has been appointed by the President to serve as the Alaska Native Commissioner to the U.S. Russia Polar Bear Commission. Charlie has been only marginally involved in the formation of the ANCC and members of the ANC and the NSB have asserted that Charlie Brower does not represent the Alaska Native community and indicated they are interested in recommending a different individual to serve as the Alaska Native Commissioner. We have advised the ANCC that they can submit a recommendation, now that they have met the criteria in the MMPA to be the successor entity. However, we have also informed them that the process for Presidential appointment, particularly prior to the expiration of an existing 4 year appointment, typically takes a significant amount of time and the outcome may be unpredictable. As they were working towards their formation, the individuals involved in the creation of the ANCC did submit a recommendation that the Secretary of Interior appoint Taqulik Hepa, Director of the NSB Wildlife Department, serve as the Alternate Alaska Native Commissioner. We forwarded that recommendation to headquarters. The ANCC and NSB would like at least a new Alternate, and perhaps a new Commissioner, appointed prior to the planned July 2018 US Russia Commission meeting.

ICAS: Not sure if this is worth mentioning....but recently George Edwardson of ICAS showed up at the Polar Bear Range States meeting without requesting to be part of the US Delegation or to attend the meeting as an observer.

There is a deadline for applications for observer status weeks in advance of the meeting so that the Heads of Delegation from the Range States (Greenland, Norway, Russia, Canada and the US) can review and agree upon a list of approved observers. Given that ICAS had not requested observer status and just showed up at the meeting, we could not authorize them to participate as an observer. We did allow them to attend the meeting as part of the US delegation this was an accommodation we made despite the fact they had not requested to be part of the delegation, had not participated in any delegation meetings, etc. Despite discussing this situation with Mr. Edwardson multiple times, he chose to voice a protest at the end of the meeting when we did not allow him to make a statement as an observer. For the record, ICAS has participated in the discussions leading up to the formation of the new ANCC. There has been some tension between the NSB and ICAS during those discussions.

On Thu, Feb 22, 2018 at 11:55 AM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi All,

The request below is from Steve Wackowski regarding Briefing Papers for an upcoming visit by Deputy Secretary David Bernhardt and Assistant Secretary for Lands and Minerals - Joe Balash. They are scheduled to be in Alaska March 4th through March 9th.

Steve has requested briefing memos from all DOI agencies. Below, I have highlighted the list items where we are identified. I have also attached relevant briefings that we have already crafted that may be easy to update or borrow information from. We will definitely need to bring the Arctic Refuge team into the mix as well.

Greg has asked that I help coordinate this effort. Steve has requested that BPs be sent directly to Leisa Monson at his office by COB March 1st. I am not certain where that puts us for our process. Do we need to run these through DTS to Headquarters or can will they be approved here only?

It is a tight turn around. I am happy to assist with editing and drafting, if needed. Once each program has final drafts, I can organize them for Greg's review. **Please have them to me by COB Monday.** That will give us Tuesday to finalize everything and package them up for Steve/Leisa.

If HQ needs to approve, then we will need to adjust the timeline accordingly, please advise.

Special Note\*\* Next week - Karen, Sara, Mary, and Soch will all be on travel for meetings. I will be on leave starting Wednesday, Feb 28th.

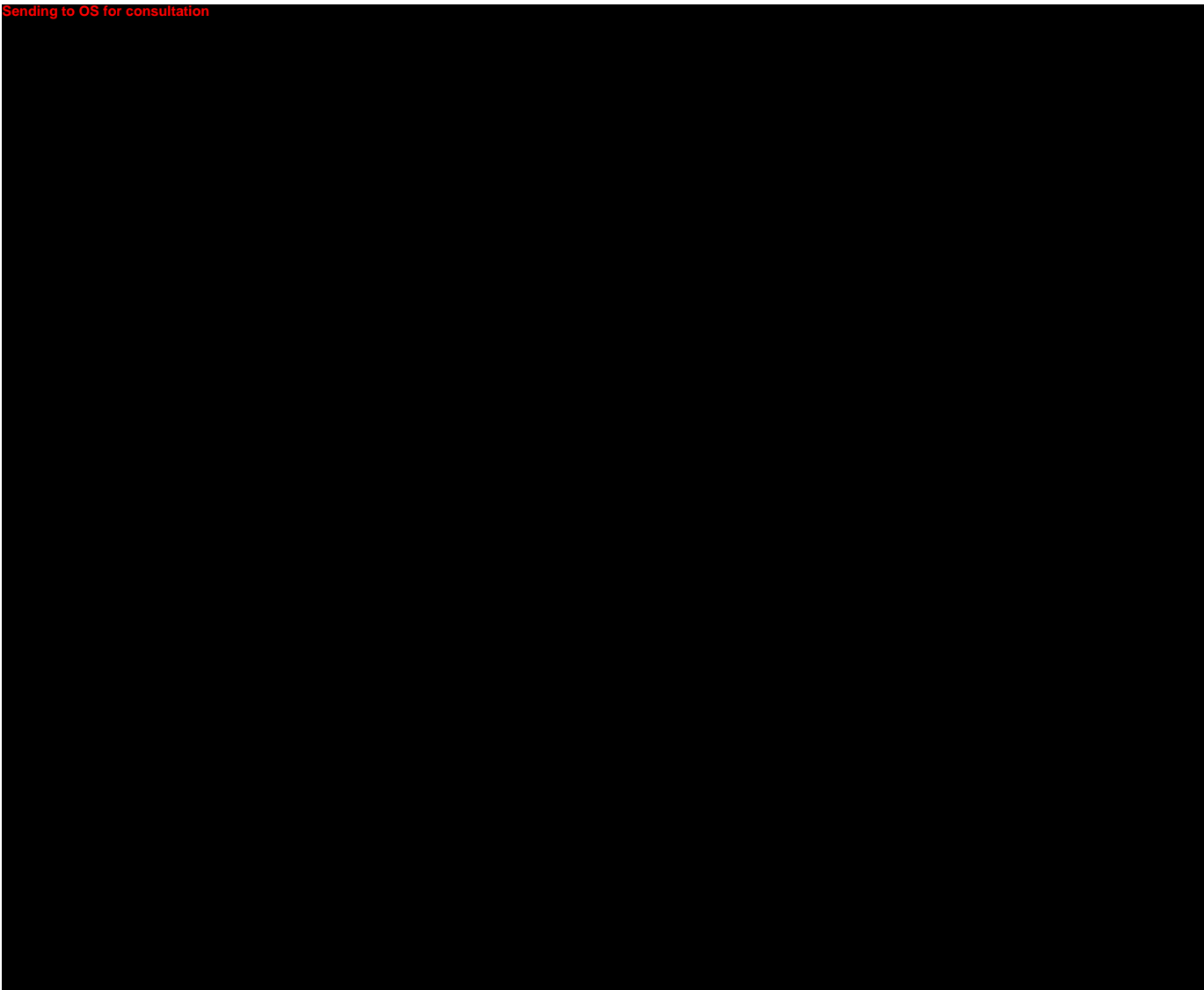
Thanks so much!  
Amee

On Feb 21, 2018, at 6:38 PM, Wackowski, Stephen  
<[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sending to OS for consultation



Sending to OS for consultation



My Best,

Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

--

*Amee Howard*

*Congressional and State Liaison*  
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Anchorage, Alaska  
Office: (907)786-3509



Mobile: (907)229-8575  
<https://www.fws.gov/alaska/>  
"Day in the Office"

--

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

--

*Amee Howard*  
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Office: (907)786-3509  
Mobile: (907)229-8575  
<https://www.fws.gov/alaska/>  
"Day in the Office"

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-02-27T12:20:29-05:00  
**Importance:** Normal  
**Subject:** Fwd: Draft Invite Letters  
**Received:** 2018-02-27T12:21:02-05:00  
Native Corporation Consultation Invite - DRAFT.GS.docx

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** **Seidlitz, Joseph (Gene)** <gseidlit@blm.gov>  
**Date:** Mon, Feb 26, 2018 at 1:28 PM  
**Subject:** Re: Draft Invite Letters  
**To:** "Murphy, Ted" <t75murph@blm.gov>  
**Cc:** Joseph Balash <joseph\_balash@ios.doi.gov>, Michael Nedd <mnedd@blm.gov>, Karen Mouritsen <kmourits@blm.gov>, "Wackowski, Stephen" <stephen\_wackowski@ios.doi.gov>, Kevin Haugrud <jack.haugrud@sol.doi.gov>, Michael Gieryic <mike.gieryic@sol.doi.gov>, Jeff Brune <jbrune@blm.gov>, Kathleen Benedetto <kbenedetto@blm.gov>, "Miriam (Nicole) Hayes" <mnhayes@blm.gov>, Serena Sweet <ssweet@blm.gov>, "Ellis-Wouters, Lesli" <lellis@blm.gov>

All,  
Thanks.

My suggested edits are in track changes. Since the letters are very similar I am only attaching one document/letter but my comments pertain to all three letters.

Best  
Gene

Gene Seidlitz  
ASLM Analyst-Liaison  
202 208 4555 (O)  
775 304 1008 (C)

On Mon, Feb 26, 2018 at 1:00 PM, Murphy, Ted <t75murph@blm.gov> wrote:

Hello,

0000011918

Attached are the draft Consultation and Cooperating Agency invitations. At the bottom of each are the potential recipients.

Thanks, Ted

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-02-27T12:32:26-05:00  
**Importance:** Normal  
**Subject:** Fwd: Draft Invite Letters  
**Received:** 2018-02-27T12:33:52-05:00  
[Native Corporation Consultation Invite - DRAFT.docx](#)  
[Tribal Consultation Invite-DRAFT.docx](#)  
[CA Invitation - DRAFT.docx](#)

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** **Murphy, Ted** <t75murph@blm.gov>  
**Date:** Mon, Feb 26, 2018 at 9:00 AM  
**Subject:** Draft Invite Letters  
**To:** Joseph Balash <joseph\_balash@ios.doi.gov>, Michael Nedd <mnedd@blm.gov>, Karen Mouritsen <kmourits@blm.gov>  
**Cc:** "Seidlitz, Joseph (Gene)" <gseidlit@blm.gov>, "Wackowski, Stephen" <stephen\_wackowski@ios.doi.gov>, Kevin Haugrud <jack.haugrud@sol.doi.gov>, Michael Gieryic <mike.gieryic@sol.doi.gov>, Jeff Brune <jbrune@blm.gov>, Kathleen Benedetto <kbenedetto@blm.gov>, "Miriam (Nicole) Hayes" <mnhayes@blm.gov>, Serena Sweet <ssweet@blm.gov>, Ted Murphy <t75murph@blm.gov>, "Ellis-Wouters, Lesli" <lellis@blm.gov>

Hello,

Attached are the draft Consultation and Cooperating Agency invitations. At the bottom of each are the potential recipients.

Thanks, Ted

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

0000011920

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Wackowski, Stephen  
**Sent:** 2018-02-27T13:26:34-05:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain EIS FR NOTICE - EXPEDITE SURNAME REVIEW  
**Received:** 2018-02-27T13:26:38-05:00  
[Coastal Plain NOI AKSO Signed Routing Sheet.pdf](#)  
[ANWR 1002 Coastal Plain Plan Follow-Up Paper map.pdf](#)  
[Coastal Plain EIS NOI 2.21.18 CLEAN.docx](#)  
[Coastal Plain NOI BP 2.21.18 CLEAN.docx](#)  
[Coastal Plain NOI News Release 2.21.18 CLEAN.docx](#)  
[Communications Plan NOI 2.22.18 CLEAN.docx](#)  
[DOI BP Coastal Plain NOI 2.22.18 CLEAN.docx](#)  
[Coastal Plain NOI Budget Signature 2.21.18.pdf](#)

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
907-271-5485

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

**From:** **Laubenstein, Karen** <klaubens@blm.gov>  
**Date:** Mon, Feb 26, 2018 at 7:19 PM  
**Subject:** Coastal Plain EIS FR NOTICE - EXPEDITE SURNAME REVIEW  
**To:** Stephen Wackowski <stephen\_wackowski@ios.doi.gov>, Lesia Monson <lesia\_monson@ios.doi.gov>  
**Cc:** "Ellis-Wouters, Lesli" <lellis@blm.gov>

Sending to BLM for consultation



Thank you!

-Karen

--

**Karen J. Laubenstein**  
State Writer-Editor and Printing Specialist  
Office of Communications  
Alaska State Office (AK912)  
Bureau of Land Management  
222 W. 7th Avenue #13  
Anchorage, AK 99513  
(907) 271-3318; fax (907) 271-5421; cell (907) 854-7702

0000011921

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Friend us on Facebook [Bureau of Land Management-Alaska](#)

*Explore BLM-Alaska -- it's an awesome experience!!!*

**To:** Howard, Amee[amee\_howard@fws.gov]  
**Cc:** Lemons, Patrick[patrick\_lemons@fws.gov]; Colligan, Mary[mary\_colligan@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-27T16:44:09-05:00  
**Importance:** Normal  
**Subject:** Re: Bibliography  
**Received:** 2018-02-27T16:44:16-05:00

Let's discuss this afternoon.

Sent from my iPhone

On Feb 27, 2018, at 12:13 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Patrick,  
Thank you for checking into the bibliography. I will make the minor edit to the briefing paper, back to the Service is currently compiling a bibliography and that it is in the works. The Deputy Secretary may likely have an interest in seeing it in the future.

Thanks again!  
Amee

On Tue, Feb 27, 2018 at 9:42 AM, Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)> wrote:

Hi Ameen,  
I apologize to add to your workload here but it appears that numerous publications are missing from this list in which employees from our office were co-authors. Most of the work is directly applicable to the request sent from Billy Dove to Jim Kurth on January 30th. Below is a list of what I've found in the last hour but I stopped adding to the list once I realized how extensive it is so perhaps I'm missing something here. It's my understanding that Greg needs a list of all publications we have been involved with that would be relative to the NPR-A and 1002 Areas? If that is the case, there are many critical publications missing from the list Greg sent around yesterday regarding polar bears. Let me know and I'll work with my staff to turn this around ASAP. Can you tell me when you need it finalized as unfortunately 2 of our polar bear experts are in Moscow this week. We'll do the best we can to pull this together quickly so just let me know what you need.

- Regehr E.V., R.R. Wilson, K.D. Rode, M.C. Runge, and H. Stern. 2017. Harvesting wildlife affected by climate change: a modelling and management approach for polar bears. *Journal of Applied Ecology* 54:1534-1543.
- Griswold J, T. McDonald, M. Branigan, E.V. Regehr, and S. Amstrup. 2017. Southern and Northern Beaufort Sea Polar Bear Subpopulation Estimates under a

Proposed Boundary Shift. Government of the Northwest Territories, Manuscript Report No. 278.

- Wilson, R.R., C. Perham, D.P. French-McCay, and R. Balouskas. 2018. Potential impacts of offshore oil spills on polar bears in the Chukchi Sea. *Environmental Pollution* 235:652-659.
- Ware J.V., K.D. Rode, J.F. Bromaghin, D.C. Douglas, R.R. Wilson, E.V. Regehr, S.C. Amstrup, G.M. Durner, A.M. Pagano, J. Olson, C.T. Robbins, and H.T. Jansen. 2017. Habitat degradation affects the summer activity of polar bears. *Oecologia* 184: 87-99.
- Durner, G.M., D.C. Douglas, S.E. Albeke, J.P. Whiteman, S.C. Amstrup, E. Richardson, R.R. Wilson, and M. Ben-David. 2017. Increased Arctic sea ice drift alters adult female polar bear movements and energetics. *Global Change Biology* 23:3460-3473.
- Wilder, J.M., D. Vongraven, T. Atwood, B. Hansen, A. Jessen, A. Kochnev, G. York, R. Vallender, D. Hedman and M. Gibbons. 2017. Polar bear attacks on humans: Implications of a changing climate. *Wildlife Society Bulletin* 41: 537-547.
- Olson, J.W., K. D. Rode, D. Eggett, T.S. Smith, R.R. Wilson, G. Durner, A. Fischbach, T. Atwood, and D.C. Douglas. 2017. Identifying maternal denning of polar bears using temperature: denning substrate in relation to sea ice in the southern Beaufort Sea. *Marine Ecology Progress Series* 564:211-224.
- French McCay, D., R. Balouskus, J. Ducharme, M. Schroeder Gearon, Y. Kim, S. Zamorski, Z. Li, J. Rowe, C. Perham, and R. Wilson. 2017. Potential exposures of wildlife to oil from hypothetical discharges in the Chukchi and Beaufort Seas. *Proceedings of the 40th AMOP Technical Seminary on Environmental Contamination and Response*. Environment Canada, Ottawa, Canada.
- Rode, K.D., R.R. Wilson, D.C. Douglas, V. Muhlenbruch, T.C. Atwood, E.V. Regehr, E. Richardson, N. Pilfold, A. Derocher, G. Durner, I. Stirling, S. Amstrup, M. St. Martin, A. Pagano, E. Peacock, and K. Simac. 2018. Spring fasting behavior among polar bears provides an index of ecosystem productivity. *Global Change Biology* 24:410-423.
- Wiig, O., E.W. Born, K.L. Laidre, R. Dietz, M.V. Jensen, G.M. Durner, A.M. Pagano, E. Regehr, M. St. Martin, S. Atkinson, and M. Dyck. 2017. Performance and retention of lightweight satellite radio tags applied to the ears of polar bears (*Ursus maritimus*). *Animal Biotelemetry*
- Rode, K. D., R. R. Wilson, D. C. Douglas, V. L. Muhlenbruch, T. C. Atwood, E. V. Regehr, E. S. Richardson, N. W. Pilfold, A. E. Derocher, G. M. Durner, I. Stirling, S. C. Amstrup, M. St. Martin, A. M. Pagano, and K. S. Simac. 2018. Spring fasting behavior in a marine apex predator provides an index of ecosystem productivity. *Global Change Biology* 24(1):410-423.
- Rode, K. D., J. W. Olson, D. L. Eggett, D. C. Douglas, G. M. Durner, T. C. Atwood, E. V. Regehr, R. R. Wilson, T. S. Smith, and M. St. Martin. 2018. Den phenology and reproductive success of polar bears in a changing climate. *Journal of Mammalogy* 99(1):16-26.
- Ware, J. V., K. D. Rode, J. F. Bromaghin, D. C. Douglas, R. R. Wilson, E. V. Regehr, S. C. Amstrup, G. M. Durner, A. M. Pagano, J. W. Olson, C. T. Robbins, and H. T. Jansen. 2017. Habitat degradation affects the summer activity



of polar bears. *Oecologia* 184(1):87-89.  
- Olson, J. W., K. D. Rode, D. L. Eggett, T. S. Smith, R. R. Wilson, G. M. Durner, A. S. Fischbach, T. C. Atwood, and D. C. Douglas. 2017. Collar temperature sensor data reveal long-term patterns in southern Beaufort Sea polar bear den distribution on pack ice and land. *Marine Ecology Progress Series* 564:211-224.  
- Continued....

On Mon, Feb 26, 2018 at 4:05 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

FYI

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

From: **Siekaniec, Greg** <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

Date: Thu, Feb 15, 2018 at 2:30 PM

Subject: Fwd: Bibliography

To: Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>

Cc: Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Jim,

Per your request. Wendy and several others did well in pulling this together. Please note the description of coverage provided by Wendy that follows.

Please call if you have questions.

Greg

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Date: Thu, Feb 15, 2018 at 2:02 PM

Subject: Bibliography

To: Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>

Hi Greg and Karen,

Attached is an updated Bibliography of FWS research in the Arctic Coastal Plain 1002 area and broader Arctic Landscape, in response to the email chain below.

John Martin led compilation of the bibliography with input and review from Arctic Refuge staff, Migratory Birds and many others. This effort includes and updates the bibliography that Jim Kurth referred to being on the Arctic Refuge website. It is difficult to put boundaries on a FWS bibliography, as finding publications often requires knowing who

was employed by the FWS when. There is overlap with the recently provided USGS bibliography for the 1002 area (that was attached to William Dove's original email). The FWS bibliography is also inclusive of many of the citations in the Arctic Coastal Plain research summaries by Douglas et al. 2002 and Pearce et al. 2018, where co-authorship by FWS or the transfer of personnel from FWS to USGS in 1996 occurred. We believe this bibliography is sufficiently complete to provide guidance towards the primary studies that FWS has led or collaborated on as co-authors for the Arctic Coastal Plain.

Thank you, please let me know if you have further questions,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic National Wildlife Refuge 1002 Coastal Plain Program

Office of Science Applications

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Jim Kurth <jim\_kurth@fws.gov>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <greg\_siekaniec@fws.gov>  
**Subject:** Fwd: Bibliography

Greg,

See below. Can you have someone pull this together. I know we had an extensive bibliography on the Arctic website but I don't think it has been kept up to date.

jim

Sent from my iPhone

0000011926

Begin forwarded message:

**From:** "Dove, William" <[william\\_dove@ios.doi.gov](mailto:william_dove@ios.doi.gov)>  
**Date:** January 30, 2018 at 5:08:59 PM EST  
**To:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Cc:** Greg Sheehan <[Greg\\_J\\_Sheehan@fws.gov](mailto:Greg_J_Sheehan@fws.gov)>  
**Subject:** **Bibliography**

Jim,

I am trying to put together a bibliography on any science that we have produced on the NPR-A and the 1002 area.

We were hoping to get this information from FWS, Greg said that you might be able to help with this. I have attached the document that USGS for reference. Should you have any questions please let me know.

Best,

Billy

**Billy Dove** | *Special Assistant*

Office of the Assistant Secretary

Land and Minerals Management

U.S. Department of the Interior

--

Patrick Lemons, Ph.D.  
Chief, Marine Mammals Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503  
Work: 907-786-3668  
Cell: 907-717-6787  
Fax: 907-786-3816  
e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

0000011927

--

*Amee Howard*

*Congressional and State Liaison*

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Anchorage, Alaska

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Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Leonetti, Crystal[crystal\_leonetti@fws.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-02-27T19:22:33-05:00  
**Importance:** Normal  
**Subject:** Information and Briefing Papers for Deputy Secretary Bernhardt's Visit - Due to Leisa Monson  
COB Thursday  
**Received:** 2018-02-27T19:22:37-05:00  
[BP Subsistence Moose Hunt - Kaktovik 02.27.18.docx](#)  
[BP Polar Bear Viewing Management 02.27.18.docx](#)  
[BP Polar Bear Science-Research Update 02.27.18.docx](#)  
[BP ATV Use On Arctic NWR 02.27.18.docx](#)  
[BP ASTAC Communications Tower 02.27.18 .docx](#)

Hi Greg and Crystal,

Attached below are the Briefing Papers on the topics requested by Steve Wackowski for Deputy Secretary Bernhardt's upcoming visit. Also below, are summaries on two topics that did not seem to warrant briefing papers, but good information for your consideration. Any briefing papers are due to Leisa Monson by COB Thursday, March 1st.

1. Interaction with Arctic Village:

From OSM:

We have had minimal engagement with Arctic Village regarding the Red Sheep Creek/Cane Creek proposal. Here's a brief summary.

Wildlife Proposal WP18-56 requests that the Federal public lands closure in the Arctic Village Sheep Management Area, which currently restricts sheep harvest on Federal public lands to residents of Arctic Village, Venetie, Fort Yukon and Kaktovik, be rescinded. OSM hosted Tribal consultations for this and other proposals from the Eastern Interior region in September 2017, but no representatives from Arctic Village participated in the call. At the Eastern Interior Regional Advisory Council Meeting in November 2017, a representative from the Arctic Village Council spoke in opposition to the proposal. In addition, an elder from the community and an individual with family ties to the community also noted their opposition to the proposal. Opposition is centered around the longstanding cultural ties to the area, along with concerns about increased plane traffic and associated wildlife disturbances.

No other programs have had recent contact with Arctic Village to report for Deputy Secretary Bernhardt's visit.

2. Steve's list includes "Any ongoing issues with ICAS or NVB" Mary was not sure if these are worth including or not, but for your consideration:

NVB & NSB: The Native Village of Barrow is the last of the 15 polar bear hunting villages to pass a resolution to adopt the constitution for the Alaska Nannuut Co-Management Council, the successor entity to the ANC. The NVB still has to designate their representative to the ANCC. Charlie Brower is the Executive Director of the Tribal Council for the NVB. He is the former Chair of the ANC and has been appointed by the President to serve as the Alaska Native Commissioner to the U.S. Russia Polar Bear Commission. Charlie has been only marginally involved in the formation of the ANCC and members of the ANC and the NSB have asserted that Charlie Brower does not represent the Alaska Native community and indicated they are interested in recommending a different individual to serve as the Alaska Native Commissioner. We have advised the ANCC that they can submit a recommendation, now that they have met the criteria in the MMPA to be the successor entity. However, we have also informed them that the process for Presidential appointment, particularly prior to the expiration of an existing 4-year appointment, typically takes a significant amount of time and the outcome may be unpredictable. As they were working towards their formation, the individuals involved in the creation of

the ANCC did submit a recommendation that the Secretary of Interior appoint Taquik Hepa, Director of the NSB Wildlife Department, serve as the Alternate Alaska Native Commissioner. We forwarded that recommendation to headquarters. The ANCC and NSB would like at least a new Alternate, and perhaps a new Commissioner, appointed prior to the planned July 2018 US Russia Commission meeting.

ICAS: Not sure if this is worth mentioning....but recently George Edwardson of ICAS showed up at the Polar Bear Range States meeting without requesting to be part of the US Delegation or to attend the meeting as an observer. There is a deadline for applications for observer status weeks in advance of the meeting so that the Heads of Delegation from the Range States (Greenland, Norway, Russia, Canada and the US) can review and agree upon a list of approved observers. Given that ICAS had not requested observer status and just showed up at the meeting, we could not authorize them to participate as an observer. We did allow them to attend the meeting as part of the US delegation - this was an accommodation we made despite the fact they had not requested to be part of the delegation, had not participated in any delegation meetings, etc. Despite discussing this situation with Mr. Edwardson multiple times, he chose to voice a protest at the end of the meeting when we did not allow him to make a statement as an observer. For the record, ICAS has participated in the discussions leading up to the formation of the new ANCC. There has been some tension between the NSB and ICAS during those discussions.

Thanks so much!  
Amee

--

*Amee Howard*

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Leonetti, Crystal[crystal\_leonetti@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-02-27T19:24:54-05:00  
**Importance:** Normal  
**Subject:** One more thing for Deputy Secretary Info/BP's  
**Received:** 2018-02-27T19:25:04-05:00  
02.12.18 BP Attachment - Polar Bear Info Needs.docx

Hi Greg and Crystal,  
Attached are the Polar Bear Info Needs that go with the BP on Polar Bear Research.

Thanks so much!  
Amee

--

*Amee Howard*

*Congressional and State Liaison*  
U.S. Fish & Wildlife Service  
Anchorage, Alaska  
Office: (907)786-3509  
Mobile: (907)229-8575  
<https://www.fws.gov/alaska/>  
"Day in the Office"

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Leonetti, Crystal  
**Sent:** 2018-02-28T18:15:29-05:00  
**Importance:** Normal  
**Subject:** Briefing Paper package #1 for Steve W.  
**Received:** 2018-02-28T18:16:43-05:00  
[BP ASTAC Communications Tower 02.27.18 .docx](#)  
[BP ATV Use On Arctic NWR 02.27.18.docx](#)  
[BP Polar Bear Science Reseach Update 2.27.18 with info attachment.pdf](#)  
[BP Polar Bear Viewing Management 02.27.18.docx](#)  
[BP Subsistence Moose Hunt - Kaktovik 02.27.18.docx](#)



**To:** Colligan, Mary[mary\_colligan@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-02-28T18:18:08-05:00  
**Importance:** Normal  
**Subject:** Re: MMPA Incidental Take Regulations and 1002 Area  
**Received:** 2018-02-28T18:19:10-05:00

Thanks Mary. Let's discuss the options with the intent of initiating the needed steps.  
Greg

Sent from my iPhone

On Feb 28, 2018, at 1:28 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

Greg Earlier this week, Ken Lord contacted us with a question about (b) (5) ACP  
[Redacted text block containing multiple lines of blacked-out content]

We have informed Ken that we have made everyone aware of this situation and are working to provide some alternatives and options to you for review and then for sharing with BLM and beyond. Ken informed us that he raised this to our attention because the issue came up on a call earlier this week with Principal Deputy Secretary Sheehan and "some other DC folks." He said he was asked to follow up with us after that call.

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

**To:** Wackowski, Stephen[stephen\_wackowski@ios.doi.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-02-28T18:43:31-05:00  
**Importance:** Normal  
**Subject:** Fwd: Briefing Paper package #1 for Steve W.  
**Received:** 2018-02-28T18:44:35-05:00  
[BP ASTAC Communications Tower 02.27.18 .docx](#)  
[BP ATV Use On Arctic NWR 02.27.18.docx](#)  
[BP Polar Bear Science Reseach Update 2.27.18 with info attachment.pdf](#)  
[BP Polar Bear Viewing Management 02.27.18.docx](#)  
[BP Subsistence Moose Hunt - Kaktovik 02.27.18.docx](#)

Steve,

Here are five of the briefs you requested for the coming week with Deputy Secretary and Assistant Secretary. We will have a couple more coming tomorrow but I thought you might want to get a few ahead of time for review.

greg

**To:** Bert Frost[bert\_frost@nps.gov]; Siekaniec, Greg[greg\_siekaniec@fws.gov]; Karen Mouritsen[kmourits@blm.gov]; James Kendall[james.kendall@boem.gov]  
**From:** Wackowski, Stephen  
**Sent:** 2018-03-04T18:18:14-05:00  
**Importance:** Normal  
**Subject:** schedule as of today  
**Received:** 2018-03-04T18:18:22-05:00  
Bernhardt Balash Alaska March 2018 draft itinerary.pdf

Just an fyi--here is the schedule current as of today.

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Sat, Mar 3, 2018 at 8:58 PM, Monson, Lesia <[lesia\\_monson@ios.doi.gov](mailto:lesia_monson@ios.doi.gov)> wrote:

Dear Directors:

Deputy Secretary Bernhardt would like to meet with the DOI Fairbanks-based staff when he's in Fairbanks on Wednesday, March 7. We've reserved the auditorium at the Noel Wien Library. Will you please distribute this invitation to your Fairbanks employees?

To DOI Fairbanks employees:

Deputy Secretary of the Interior David Bernhardt will be visiting Fairbanks next week. On behalf of the Deputy Secretary, I would like to invite you to attend an all-employees meeting, **Wednesday, March 7, at 2:00pm**, at the following location:

**Fairbanks North Star Borough**  
**Noel Wien Library**  
**1215 Cowles Street**  
**Fairbanks, AK**  
**Wednesday, March 7**  
**2:00 - 3:00pm**

This event will be an opportunity to hear directly from Deputy Secretary Bernhardt about DOI priorities affecting bureaus in Alaska. There will also be an opportunity to ask questions. This meeting is not mandatory.

Thank you.

Lesia Monson  
Department of the Interior  
Office of the Secretary  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

**To:** greg\_siekaniec@fws.gov[greg\_siekaniec@fws.gov]; Doug Damberg[doug\_damberg@fws.gov]  
**Cc:** Socheata Lor[socheata\_lor@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Mitch Ellis  
**Sent:** 2018-03-05T09:57:03-05:00  
**Importance:** Normal  
**Subject:** Fwd: More on PCH information needs  
**Received:** 2018-03-05T09:57:14-05:00

Did we respond to Bruce? Seems a response is in order as well as direction to Arctic staff on the Technical Committee's role. Doug - can you follow up with Greg and Karen?

Sent from my iPhone

Begin forwarded message:

**From:** "Dale, Bruce W (DFG)" <bruce.dale@alaska.gov>  
**Date:** March 2, 2018 at 7:19:50 PM MST  
**To:** "Christine.Cleghorn@gov.yk.ca" <Christine.Cleghorn@gov.yk.ca>, "greg\_siekaniec@fws.gov" <greg\_siekaniec@fws.gov>, "mitch\_ellis@fws.gov" <mitch\_ellis@fws.gov>, "craig.machtans@canada.ca" <craig.machtans@canada.ca>  
**Cc:** "Gladziszewski, Maria (DFG)" <maria.gladziszewski@alaska.gov>, "Bruning, Darren L (DFG)" <darren.bruning@alaska.gov>  
**Subject:** RE: More on PCH information needs

Thanks Christine  
Same here. Have a great weekend.

Bruce

----- Original message -----

**From:** Christine.Cleghorn@gov.yk.ca  
**Date:** 3/2/2018 5:11 PM (GMT-09:00)  
**To:** "Dale, Bruce W (DFG)" <bruce.dale@alaska.gov>, greg\_siekaniec@fws.gov, mitch\_ellis@fws.gov, craig.machtans@canada.ca  
**Cc:** "Gladziszewski, Maria (DFG)" <maria.gladziszewski@alaska.gov>, "Bruning, Darren L (DFG)" <darren.bruning@alaska.gov>  
**Subject:** RE: More on PCH information needs

Thank you Bruce. We continue to be willing to collaborate as neighbours, outside of PCTC, on this herd.

I have copied Craig Machtans from CWS here to ensure it gets to the new CWS member.

Christine



**Christine Cleghorn**  
Director  
Environment | Fish and Wildlife  
T 867-667-5715 | [Yukon.ca](http://Yukon.ca)

---

**From:** Dale, Bruce W (DFG) [<mailto:bruce.dale@alaska.gov>]  
**Sent:** Friday, March 02, 2018 4:18 PM  
**To:** Greg Siekaniec; Christine.Cleghorn; Mitch Ellis  
**Cc:** Gladyszewski, Maria (DFG); Bruning, Darren L (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice

A large, solid black rectangular redaction box covers the majority of the page content below the email header.

Bruce Dale  
Director  
Division of Wildlife Conservation  
Alaska Department of Fish and Game  
1800 Glenn Highway, Suite 4

0000011938

Palmer, AK 99645

907-861-2101

---

**From:** Bruning, Darren L (DFG)  
**Sent:** Friday, March 02, 2018 2:56 PM  
**To:** Dale, Bruce W (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



---

**From:** Caikoski, Jason R (DFG)  
**Sent:** Friday, March 02, 2018 2:45 PM  
**To:** Bruning, Darren L (DFG)  
**Cc:** Lenart, Elizabeth (DFG); Parker McNeill, Doreen I (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



=====  
Jason Caikoski  
Wildlife Biologist  
Alaska Dept. of Fish and Game  
1300 College Road  
Fairbanks, AK 99701  
(907) 459-7300  
e-mail: [jason.caikoski@alaska.gov](mailto:jason.caikoski@alaska.gov)  
=====

**From:** Arthur, Stephen [[mailto:stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, March 02, 2018 2:28 PM  
**To:** Stotyn, Shannon (EC)  
**Cc:** [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca); [Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); Troy Hegel ([Troy.Hegel@gov.yk.ca](mailto:Troy.Hegel@gov.yk.ca)); Don Russell ([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG); ian mcdonald ([ian.mcdonald@pc.gc.ca](mailto:ian.mcdonald@pc.gc.ca)); martin kienzler; [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca)  
**Subject:** Re: More on PCH information needs

PCTC:

Is there interest in setting up a conference call in the next couple of weeks? At this point, I think the main thing to discuss is what level of involvement does the PCTC want to have in handling the various calls for data (and potentially some additional analyses) that I expect we will be hearing in the near future as the BLM proceeds with developing an EIS for additional exploration (3D seismic) and leasing of the 1002 area. If folks think that would be worthwhile, let me know and we will try and find a time that works for most of us.

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 Fri, Feb 23, 2018 at 11:20 AM, Stotyn, Shannon (EC)

<[shannon.stotyn@canada.ca](mailto:shannon.stotyn@canada.ca)> wrote:

Hi Stephen,

I just wanted to make sure you include the Parks Canada reps on the PCTC correspondence and Martin Keinzler as well. I will forward this request to them.

[ian.mcdonald@pc.gc.ca](mailto:ian.mcdonald@pc.gc.ca), [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca), [Martin.Kienzler@gov.yk.ca](mailto:Martin.Kienzler@gov.yk.ca)

What would be the most ideal format for this meeting? Teleconference or face to face?

Thanks!

Shannon

**From:** Arthur, Stephen [[mailto:stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]

**Sent:** February 22, 2018 2:42 PM

**To:** Stotyn, Shannon (EC); [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca); [Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); [Troy Hegel \(Troy.Hegel@gov.yk.ca\)](mailto:Troy.Hegel@gov.yk.ca); [Don Russell \(drussell@yukoncollege.yk.ca\)](mailto:Don.Russell@yukoncollege.yk.ca); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG)

**Subject:** More on PCH information needs

PCTC members:

I have been asked to identify specific areas of high value to caribou within the 1002 area of the Arctic Refuge. In the past, the PCTC has taken the position that entire area is important, because calving areas vary from year to year and it is impossible to predict which area will be most valuable in a particular year. However, the USFWS and BLM are going to be tasked with recommending specific stipulations, required operating procedures (ROPs), and best management practices (BMPs) for establishing a program for oil and gas production in the



area, and this may include identifying areas that warrant special management stipulations of some kind. In the short term, this means preparing an Environmental Impact Statement that specifies what types of activities can be conducted in each area and under what conditions, similar to what has been prepared for the NPR-A area further west (see attached maps).

It seems to me we (PCTC) should be most concerned with identifying calving areas and insect relief habitat (for example, the coast of Camden Bay was used by large groups of caribou for insect relief during some years of the late 80s and early 90s). So my question for the group is: do we want to examine the telemetry data in more detail to prioritize certain areas within the 1002, or should we continue to consider the entire area as equally valuable to caribou, and propose some overall stipulations that would mitigate impacts across the entire area?

I have a short timeline to respond to this request (about a week) so I don't expect a final answer on this, but I do want to get some feedback from the group before I head down the wrong path, so any thoughts you may have would be very welcome.

Do we need to convene a meeting to discuss how to handle this sort of information request (I expect there will be more to come...)?

Steve

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

The logo for Yukon, featuring the word "Yukon" in a bold, sans-serif font. Above the letter "o" is a stylized sunburst or starburst graphic. To the right of the text is a vertical line.

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Clark, Karen[karen\_clark@fws.gov]  
**Cc:** Mary Colligan[mary\_colligan@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov];  
Christopher Putnam[christopher\_putnam@fws.gov]  
**From:** Crane, Drew  
**Sent:** 2018-03-05T17:04:00-05:00  
**Importance:** Normal  
**Subject:** 1002 MMPA Take Authorization Scenarios  
**Received:** 2018-03-05T17:04:12-05:00  
[MMPA-ESA ITA Options - V3.docx](#)

Hi Greg and Karen,

Attached are the MMPA authorization scenarios we discussed this morning. Let us know if you have any questions or if you would like any additional information.

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

**To:** Crane, Drew[drew\_crane@fws.gov]  
**Cc:** Clark, Karen[karen\_clark@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]; Patrick Lemons[patrick\_lemons@fws.gov]; Christopher Putnam[christopher\_putnam@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-03-07T11:51:01-05:00  
**Importance:** Normal  
**Subject:** Re: 1002 MMPA Take Authorization Scenarios  
**Received:** 2018-03-07T11:51:24-05:00

Thank you Drew

Sent from my iPhone

On Mar 5, 2018, at 1:04 PM, Crane, Drew <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)> wrote:

Hi Greg and Karen,  
Attached are the MMPA authorization scenarios we discussed this morning. Let us know if you have any questions or if you would like any additional information.

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

<MMPA-ESA ITA Options - V3.docx>

**To:** Damberg, Doug[doug\_damberg@fws.gov]  
**Cc:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Socheata Lor[socheata\_lor@fws.gov]  
**From:** Mitch Ellis  
**Sent:** 2018-03-07T13:00:11-05:00  
**Importance:** Normal  
**Subject:** Re: More on PCH information needs  
**Received:** 2018-03-07T13:00:20-05:00

Thanks Doug. Yes, the re-appointment of Bruce is news to me. I did receive Canada's co-chair appointment notice. You were copied on that, right? I'll check and forward if you didn't.

Sent from my iPad

On Mar 7, 2018, at 10:21 AM, Damberg, Doug <doug\_damberg@fws.gov> wrote:

I haven't heard of other U.S. appointments or re-appointments. In the past, I believe that a re-appointment (any appointment, for that matter) was done based on a FWS request - and we didn't generate that from here.

I spent some time yesterday looking at the IPCB International Conservation Agreement, the IPCB Rules and Procedures, and the Porcupine Caribou Technical Committee's Terms of Reference, in addition to talking with Gilbert. I'm also looking for some more background information that might inform the discussion.

(b) (5) DPP

[REDACTED]

[REDACTED]

[REDACTED]

We can talk through this when you

are back or I can write up the main points.

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 Wed, Mar 7, 2018 at 7:56 AM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

I spoke with Bruce and asked if his thoughts were (b) (5) DPP

[REDACTED]

[REDACTED] In fact, he shared with me that he recently received his reappointment to the board from the Secretary. I have not heard of any US appointments so this seems a bit odd.

Mitch do you have any information as to status of other appointments? If this is the case we can reengage the board and give this issue consideration.

Greg

0000011944

Sent from my iPhone

Begin forwarded message:

**From:** "Machtans, Craig (EC)" <[craig.machtans@canada.ca](mailto:craig.machtans@canada.ca)>  
**Date:** March 5, 2018 at 9:35:34 AM AKST  
**To:** "Dale, Bruce W (DFG)" <[bruce.dale@alaska.gov](mailto:bruce.dale@alaska.gov)>, "[Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)" <[Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)>, "[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)" <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)" <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, "MacDonald2, Bruce (EC)" <[bruce.macdonald2@canada.ca](mailto:bruce.macdonald2@canada.ca)>  
**Cc:** "Gladziszewski, Maria (DFG)" <[maria.gladziszewski@alaska.gov](mailto:maria.gladziszewski@alaska.gov)>, "Bruning, Darren L (DFG)" <[darren.bruning@alaska.gov](mailto:darren.bruning@alaska.gov)>  
**Subject:** RE: More on PCH information needs

Sending to CWS for submitter notice



Manager, Northern Region (Whitehorse), Canadian Wildlife Service  
Environment and Climate Change Canada / Government of Canada  
[craig.machtans@canada.ca](mailto: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

0000011945

[craig.machtans@canada.ca](mailto:craig.machtans@canada.ca) / Tél.: 867-393-6706 / Télécopieur 867-393-7970

---

**From:** Dale, Bruce W (DFG) [<mailto:bruce.dale@alaska.gov>]  
**Sent:** March 2, 2018 6:20 PM  
**To:** [Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca); [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov); [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov);  
Machtans, Craig (EC)  
**Cc:** Gladziszewski, Maria (DFG); Bruning, Darren L (DFG)  
**Subject:** RE: More on PCH information needs

Thanks Christine

Same here. Have a great weekend.

Bruce

----- Original message -----

**From:** [Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)

**Date:** 3/2/2018 5:11 PM (GMT-09:00)

**To:** "Dale, Bruce W (DFG)" <[bruce.dale@alaska.gov](mailto:bruce.dale@alaska.gov)>, [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov),  
[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov), [craig.machtans@canada.ca](mailto:craig.machtans@canada.ca)

**Cc:** "Gladziszewski, Maria (DFG)" <[maria.gladziszewski@alaska.gov](mailto:maria.gladziszewski@alaska.gov)>, "Bruning,  
Darren L (DFG)" <[darren.bruning@alaska.gov](mailto:darren.bruning@alaska.gov)>

**Subject:** RE: More on PCH information needs

0000011946

Thank you Bruce. We continue to be willing to collaborate as neighbours, outside of PCTC, on this herd.

I have copied Craig Machtans from CWS here to ensure it gets to the new CWS member.

Christine



**Christine Cleghorn**

Director

Environment | Fish and Wildlife

T 867-667-5715 | [Yukon.ca](http://Yukon.ca)

---

**From:** Dale, Bruce W (DFG) [<mailto:bruce.dale@alaska.gov>]

**Sent:** Friday, March 02, 2018 4:18 PM

**To:** Greg Siekaniec; Christine.Cleghorn; Mitch Ellis

**Cc:** Gladyszewski, Maria (DFG); Bruning, Darren L (DFG)

**Subject:** FW: More on PCH information needs

All,

Sending to AF&G for submitter notice

A large black rectangular redaction box covers the majority of the email body content below the header.

0000011947

Sending to AF&G for submitter notice

Bruce Dale

Director

Division of Wildlife Conservation

Alaska Department of Fish and Game

1800 Glenn Highway, Suite 4

Palmer, AK 99645

-

907-861-2101

0000011948



---

**From:** Bruning, Darren L (DFG)  
**Sent:** Friday, March 02, 2018 2:56 PM  
**To:** Dale, Bruce W (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



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**From:** Caikoski, Jason R (DFG)  
**Sent:** Friday, March 02, 2018 2:45 PM  
**To:** Bruning, Darren L (DFG)  
**Cc:** Lenart, Elizabeth (DFG); Parker McNeill, Doreen I (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



=====

Jason Caikoski  
Wildlife Biologist  
Alaska Dept. of Fish and Game  
1300 College Road  
Fairbanks, AK 99701  
(907) 459-7300  
e-mail: [jason.caikoski@alaska.gov](mailto:jason.caikoski@alaska.gov)

=====  
**From:** Arthur, Stephen [[mailto:stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, March 02, 2018 2:28 PM  
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**Cc:** [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca); [Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); Troy Hegel ([Troy.Hegel@gov.yk.ca](mailto:Troy.Hegel@gov.yk.ca)); Don Russell ([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG); [ian\\_mcdonald@pc.gc.ca](mailto:ian_mcdonald@pc.gc.ca); martin kienzler; [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca)  
**Subject:** Re: More on PCH information needs

PCTC:

Is there interest in setting up a conference call in the next couple of weeks? At this point, I think the main thing to discuss is what level of involvement does the PCTC want to have in handling the various calls for data (and potentially some additional analyses) that I expect we will be hearing in the near future as the BLM proceeds with developing an EIS for additional exploration (3D seismic) and leasing of the 1002 area. If folks think that would be worthwhile, let me know and we will try and find a time that works for most of us.

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 Fri, Feb 23, 2018 at 11:20 AM, Stotyn, Shannon (EC) <[shannon.stotyn@canada.ca](mailto:shannon.stotyn@canada.ca)> wrote:

Hi Stephen,

0000011950

I just wanted to make sure you include the Parks Canada reps on the PCTC correspondence and Martin Keinzler as well. I will forward this request to them.

[ian.mcdonald@pc.gc.ca](mailto:ian.mcdonald@pc.gc.ca), [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca), [Martin.Kienzler@gov.yk.ca](mailto:Martin.Kienzler@gov.yk.ca)

What would be the most ideal format for this meeting? Teleconference or face to face?

Thanks!

Shannon

**From:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]

**Sent:** February 22, 2018 2:42 PM

**To:** Stotyn, Shannon (EC); [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca);

[Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); Troy Hegel ([Troy.Hegel@gov.yk.ca](mailto:Troy.Hegel@gov.yk.ca)); Don Russell

([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG)

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we want to examine the telemetry data in more detail to prioritize certain areas within the 1002, or should we continue to consider the entire area as equally valuable to caribou, and propose some overall stipulations that would mitigate impacts across the entire area?

I have a short timeline to respond to this request (about a week) so I don't expect a final answer on this, but I do want to get some feedback from the group before I head down the wrong path, so any thoughts you may have would be very welcome.

Do we need to convene a meeting to discuss how to handle this sort of information request (I expect there will be more to come...)?

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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*

**To:** Damberg, Doug[doug\_damberg@fws.gov]  
**Cc:** Mitch Ellis[mitch\_ellis@fws.gov]; Socheata Lor[socheata\_lor@fws.gov]  
**From:** Greg Siekaniec  
**Sent:** 2018-03-07T15:33:50-05:00  
**Importance:** Normal  
**Subject:** Re: More on PCH information needs  
**Received:** 2018-03-07T15:57:23-05:00

Let's schedule a discussion for next week. Thank you.  
Greg

Sent from my iPhone

On Mar 7, 2018, at 9:21 AM, Damberg, Doug <doug\_damberg@fws.gov> wrote:

I haven't heard of other U.S. appointments or re-appointments. In the past, I believe that a re-appointment (any appointment, for that matter) was done based on a FWS request - and we didn't generate that from here.

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(b) (5) DPP  
[Redacted]  
[Redacted]  
[Redacted]. We can talk through this when you

are back or I can write up the main points.

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

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[Redacted]

[Redacted] In fact, he shared with me that he recently received his reappointment to the board from the Secretary. I have not heard of any US appointments so this seems a bit odd.

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Greg

Sent from my iPhone

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**From:** "Machtans, Craig (EC)" <[craig.machtans@canada.ca](mailto:craig.machtans@canada.ca)>  
**Date:** March 5, 2018 at 9:35:34 AM AKST  
**To:** "Dale, Bruce W (DFG)" <[bruce.dale@alaska.gov](mailto:bruce.dale@alaska.gov)>, "[Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)" <[Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)>, "[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)" <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)" <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, "MacDonald2, Bruce (EC)" <[bruce.macdonald2@canada.ca](mailto:bruce.macdonald2@canada.ca)>  
**Cc:** "Gladziszewski, Maria (DFG)" <[maria.gladziszewski@alaska.gov](mailto:maria.gladziszewski@alaska.gov)>, "Bruning, Darren L (DFG)" <[darren.bruning@alaska.gov](mailto:darren.bruning@alaska.gov)>  
**Subject:** RE: More on PCH information needs

Sending to CWS for submitter notice



Manager, Northern Region (Whitehorse), Canadian Wildlife Service  
Environment and Climate Change Canada / Government of Canada  
[craig.machtans@canada.ca](mailto: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

0000011954

[craig.machtans@canada.ca](mailto:craig.machtans@canada.ca) / Tél.: 867-393-6706 / Télécopieur 867-393-7970

---

**From:** Dale, Bruce W (DFG) [<mailto:bruce.dale@alaska.gov>]  
**Sent:** March 2, 2018 6:20 PM  
**To:** [Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca); [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov); [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov);  
Machtans, Craig (EC)  
**Cc:** Gladziszewski, Maria (DFG); Bruning, Darren L (DFG)  
**Subject:** RE: More on PCH information needs

Thanks Christine

Same here. Have a great weekend.

Bruce

----- Original message -----

From: [Christine.Cleghorn@gov.yk.ca](mailto:Christine.Cleghorn@gov.yk.ca)

Date: 3/2/2018 5:11 PM (GMT-09:00)

To: "Dale, Bruce W (DFG)" <[bruce.dale@alaska.gov](mailto:bruce.dale@alaska.gov)>, [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov),  
[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov), [craig.machtans@canada.ca](mailto:craig.machtans@canada.ca)

Cc: "Gladziszewski, Maria (DFG)" <[maria.gladziszewski@alaska.gov](mailto:maria.gladziszewski@alaska.gov)>, "Bruning,  
Darren L (DFG)" <[darren.bruning@alaska.gov](mailto:darren.bruning@alaska.gov)>

Subject: RE: More on PCH information needs

0000011955

Thank you Bruce. We continue to be willing to collaborate as neighbours, outside of PCTC, on this herd.

I have copied Craig Machtans from CWS here to ensure it gets to the new CWS member.

Christine



**Christine Cleghorn**

Director

Environment | Fish and Wildlife

T 867-667-5715 | [Yukon.ca](http://Yukon.ca)

---

**From:** Dale, Bruce W (DFG) [<mailto:bruce.dale@alaska.gov>]

**Sent:** Friday, March 02, 2018 4:18 PM

**To:** Greg Siekaniec; Christine.Cleghorn; Mitch Ellis

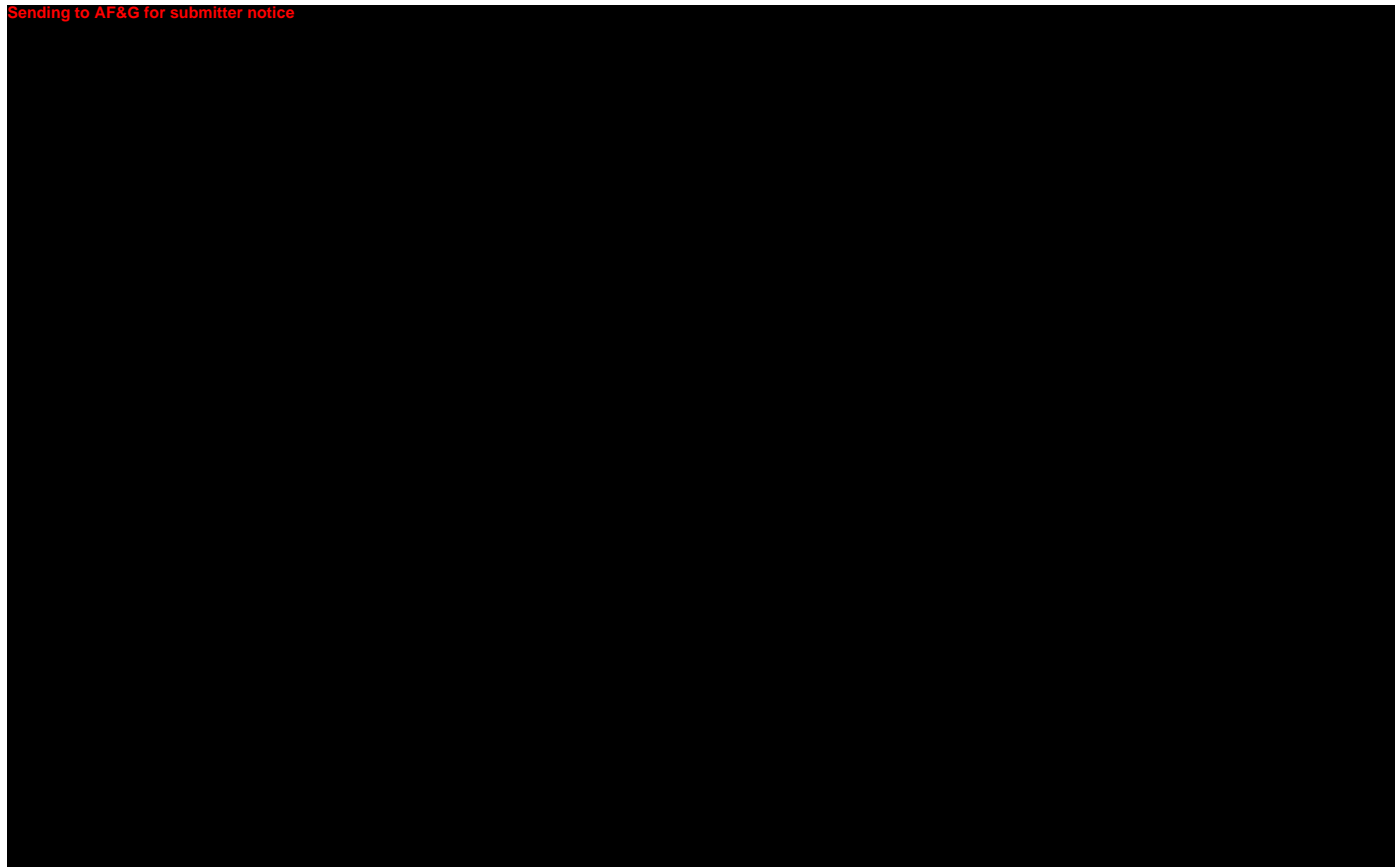
**Cc:** Gladyszewski, Maria (DFG); Bruning, Darren L (DFG)

**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice

A large black rectangular redaction box covers the majority of the lower half of the page, obscuring all text and graphics that would otherwise be present.





Bruce Dale  
Director  
Division of Wildlife Conservation  
Alaska Department of Fish and Game  
1800 Glenn Highway, Suite 4  
Palmer, AK 99645

-

907-861-2101

---

**From:** Bruning, Darren L (DFG)  
**Sent:** Friday, March 02, 2018 2:56 PM  
**To:** Dale, Bruce W (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



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**From:** Caikoski, Jason R (DFG)  
**Sent:** Friday, March 02, 2018 2:45 PM  
**To:** Bruning, Darren L (DFG)  
**Cc:** Lenart, Elizabeth (DFG); Parker McNeill, Doreen I (DFG)  
**Subject:** FW: More on PCH information needs

Sending to AF&G for submitter notice



=====

Jason Caikoski  
Wildlife Biologist  
Alaska Dept. of Fish and Game  
1300 College Road  
Fairbanks, AK 99701  
(907) 459-7300  
e-mail: [jason.caikoski@alaska.gov](mailto:jason.caikoski@alaska.gov)

=====  
**From:** Arthur, Stephen [[mailto:stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, March 02, 2018 2:28 PM  
**To:** Stotyn, Shannon (EC)  
**Cc:** [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca); [Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); Troy Hegel ([Troy.Hegel@gov.yk.ca](mailto:Troy.Hegel@gov.yk.ca)); Don Russell ([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG); [ian\\_mcdonald@pc.gc.ca](mailto:ian_mcdonald@pc.gc.ca); martin kienzler; [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca)  
**Subject:** Re: More on PCH information needs

PCTC:

Is there interest in setting up a conference call in the next couple of weeks? At this point, I think the main thing to discuss is what level of involvement does the PCTC want to have in handling the various calls for data (and potentially some additional analyses) that I expect we will be hearing in the near future as the BLM proceeds with developing an EIS for additional exploration (3D seismic) and leasing of the 1002 area. If folks think that would be worthwhile, let me know and we will try and find a time that works for most of us.

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 Fri, Feb 23, 2018 at 11:20 AM, Stotyn, Shannon (EC) <[shannon.stotyn@canada.ca](mailto:shannon.stotyn@canada.ca)> wrote:

Hi Stephen,

0000011959

I just wanted to make sure you include the Parks Canada reps on the PCTC correspondence and Martin Keinzler as well. I will forward this request to them.

[ian.mcdonald@pc.gc.ca](mailto:ian.mcdonald@pc.gc.ca), [david.tavares@pc.gc.ca](mailto:david.tavares@pc.gc.ca), [Martin.Kienzler@gov.yk.ca](mailto:Martin.Kienzler@gov.yk.ca)

What would be the most ideal format for this meeting? Teleconference or face to face?

Thanks!

Shannon

**From:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]

**Sent:** February 22, 2018 2:42 PM

**To:** Stotyn, Shannon (EC); [Mike.Suitor@gov.yk.ca](mailto:Mike.Suitor@gov.yk.ca); [Marsha\\_Branigan@gov.nt.ca](mailto:Marsha_Branigan@gov.nt.ca);

[Tracy\\_Davison@gov.nt.ca](mailto:Tracy_Davison@gov.nt.ca); Troy Hegel ([Troy.Hegel@gov.yk.ca](mailto:Troy.Hegel@gov.yk.ca)); Don Russell

([drussell@yukoncollege.yk.ca](mailto:drussell@yukoncollege.yk.ca)); Brad Griffith; Caikoski, Jason R (DFG); Lenart, Elizabeth (DFG)

**Subject:** More on PCH information needs

PCTC members:

I have been asked to identify specific areas of high value to caribou within the 1002 area of the Arctic Refuge. In the past, the PCTC has taken the position that entire area is important, because calving areas vary from year to year and it is impossible to predict which area will be most valuable in a particular year. However, the USFWS and BLM are going to be tasked with recommending specific stipulations, required operating procedures (ROPs), and best management practices (BMPs) for establishing an program for oil and gas production in the area, and this may include identifying areas that warrant special management stipulations of some kind. In the short term, this means preparing an Environmental Impact Statement that specifies what types of activities can be conducted in each area and under what conditions, similar to what has been prepared for the NPR-A area further west (see attached maps).

It seems to me we (PCTC) should be most concerned with identifying calving areas and insect relief habitat (for example, the coast of Camden Bay was used by large groups of caribou for insect relief during some years of the late 80s and early 90s). So my question for the group is: do

we want to examine the telemetry data in more detail to prioritize certain areas within the 1002, or should we continue to consider the entire area as equally valuable to caribou, and propose some overall stipulations that would mitigate impacts across the entire area?

I have a short timeline to respond to this request (about a week) so I don't expect a final answer on this, but I do want to get some feedback from the group before I head down the wrong path, so any thoughts you may have would be very welcome.

Do we need to convene a meeting to discuss how to handle this sort of information request (I expect there will be more to come...)?

Steve

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist*

*Arctic National Wildlife Refuge*

*101 12th Ave., Room 236*

*Fairbanks, AK 99701*

*(907)455-1830*

**To:** adevaris@usgs.gov[adevaris@usgs.gov]; karen\_clark@fws.gov[karen\_clark@fws.gov]; Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Karen Mouritsen  
**Sent:** 2018-03-07T20:49:40-05:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain and Consistency/Oversite Teams  
**Received:** 2018-03-07T20:49:54-05:00  
[ATT00001.htm](#)  
[Consistency Review Team.docx](#)  
[Coastal Plain ID Team 3.3.18 \(2\).xlsx](#)  
[ATT00002.htm](#)

Karen Mouritsen  
Acting State Director for Alaska  
Phone 907-271-5080  
Cell 202-329-2030

Begin forwarded message:

**From:** "Murphy, Ted" <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Date:** March 3, 2018 at 8:59:27 AM AKST  
**To:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Cc:** Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Subject:** Coastal Plain and Consistency/Oversite Teams

Karen,

Attached are the documents requested.

There are hard copies on your desk.

Ted

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

0000011962

**To:** Wackowski, Stephen[stephen\_wackowski@ios.doi.gov]  
**Cc:** Karen Mouritsen[kmourits@blm.gov]; Greg Siekaniec[greg\_siekaniec@fws.gov]; James Kendall[james.kendall@boem.gov]; Mark Fesmire[mark.fesmire@bsee.gov]; Lynn Polacca[lynn.polacca@bia.gov]; Herbert Frost[bert\_frost@nps.gov]; Cynthia Jacobson[cynthia\_jacobson@fws.gov]; Gene Peltola[gene\_peltola@fws.gov]; Sara Longan[slongan@blm.gov]; Travnicsek, Andrea[andrea\_travnicsek@ios.doi.gov]; Jason Larrabee[jason\_larrabee@ios.doi.gov]; Joseph Balash[joseph\_balash@ios.doi.gov]  
**From:** Devaris, Aimee  
**Sent:** 2018-03-09T19:24:17-05:00  
**Importance:** Normal  
**Subject:** Re: Arctic Science data call  
**Received:** 2018-03-09T19:24:27-05:00

Hi Steve,

In addition to the previous USGS response, I would add a *potential* LiDAR acquisition which would overlap portions of NPRA and ANWR. The NSB proposed grant assistance from USGS 3DEP for LiDAR acquisition in 2018 for its populated areas. NSB would provide \$120,250 plus \$205,000 in-kind, and USGS would contribute \$460,000. This would potentially include Kaktovik, Deadhorse/Prudhoe Bay, Nuiqsut, Atkasuk and Barrow/Utqiagvik.

This project is likely to be approved when we receive our 2018 budget.

Thanks,  
Aimee

On Wed, Feb 21, 2018 at 4:56 PM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sending to OS for consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

0000011963

--

**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
4210 University Drive  
Anchorage, Alaska  
907-786-7055



**To:** Mitch Ellis[mitch\_ellis@fws.gov]; socheata\_lor@fws.gov[socheata\_lor@fws.gov]; greg\_siekaniec@fws.gov[greg\_siekaniec@fws.gov]; steve\_berendzen@fws.gov[steve\_berendzen@fws.gov]  
**From:** Douglas Campbell  
**Sent:** 2018-03-10T17:13:04-05:00  
**Importance:** Normal  
**Subject:** Fwd: IBLA 2017-55 Answer & Exhibits (ANWR Boundary Appeals)  
**Received:** 2018-03-10T17:13:05-05:00

FYI. Our (US) response to IBLA on state's claim about Arctic boundary

Sent from my iPhone

Begin forwarded message:

**From:** "Gieryic, Michael" <mike.gieryic@sol.doi.gov>  
**Date:** March 9, 2018 at 3:30:27 PM AKST  
**To:** Douglas Campbell <douglas\_campbell@fws.gov>  
**Subject:** Fwd: IBLA 2017-55 Answer & Exhibits (ANWR Boundary Appeals)

Doug,

FYI. Thanks for all of your help on this. (b) (5) DPP, (b) (5) ACP

Mike

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

**From:** Carter, Lorraine <lorraine.carter@sol.doi.gov>  
**Date:** Fri, Mar 9, 2018 at 3:18 PM  
**Subject:** IBLA 2017-55 Answer & Exhibits  
**To:** "Schechter, Michael S (LAW)" <mike.schechter@alaska.gov>, "Williams, Jennifer L (LAW)" <jennifer.williams1@alaska.gov>  
**Cc:** Michael Gieryic <mike.gieryic@sol.doi.gov>

Please find attached the above captioned document with exhibits as filed with the IBLA.

- ANSWER IBLA 2017-55.pdf
- BLM-B Geographic Dictionary of Alaska.pdf
- BLM-C Geographic Dictionary of Alaska.pdf
- BLM-D ANILCA ANWR Map.pdf

BLM-E Initial FWS-AK Metes & Bounds Description...

BLM-F Initial FWS-AK Metes & Bounds Description...

BLM-G FWS Metes & Bounds Map.pdf

BLM-H 18Sep1957 Telegram from FWS-DC.pdf

BLM-I 18Sep1957 FWS-AK Response to FWS-DC.pdf

BLM-J Enclosure to BLM-I.pdf

BLM-K FWS Map of Territory of Alaska.pdf

BLM-L 17Oct1957 Telegram from FWS-DC.pdf

BLM-M 22Oct1957 FWS-AK Response to FWS-DC.pdf

BLM-N Enclosure (Metes & Bounds Description) t...

BLM-O 25Oct1957 FWS-AK Metes & Bounds descripti...

BLM-P 25Oct1957 FWS-AK Metes & Bounds Descripti...

BLM-Q 1961 Caribou Map.pdf

BLM-R Figure 9.1 of Special Master's Report in ...

BLM-S Broadus Surveyor License Status.pdf

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Lorraine Carter  
US Department of the Interior  
Office of the Solicitor, Alaska Region  
4230 University Drive Suite 300  
Anchorage, Alaska 99508  
(907)271-4131  
Fax: (907)271-4143

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]; Drew Crane[drew\_crane@fws.gov]; Christopher Putnam[christopher\_putnam@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-03-12T14:57:00-04:00  
**Importance:** Normal  
**Subject:** 1002 and MMPA  
**Received:** 2018-03-12T14:57:15-04:00

Greg and Karen Thanks for taking the time to talk with Drew and Christopher about options for MMPA authorizations for marine mammal take associated with exploration and development in the 1002 area. As they presented, BLM's current representation to us is that there will not be any seismic activity in the winter of 2018/2019 and since we have not received any application to the contrary, we are not in a position to provide any take coverage for marine mammal take that might be associated with any exploration activity in the winter of 2018/2019.

We do believe it is likely that seismic activity will occur beginning the winter of 2019/2020 and therefore we believe the best option moving forward is to issue Interim ITRs for the 1002 Area to run parallel to the existing Southern Beaufort Sea ITRs and then to synch up the ITRs when the SBS ITRs expire in August 2021. This process must start this month and move promptly through development of an application. The critical first step is to identify an applicant. We suggest discussions with AOGA be initiated immediately and we suggest that BLM initiate that effort, with our participation as subject matter experts. Such a meeting would also provide an opportunity to discuss the proposal to merge the two ITRs in 2021. If AOGA is unwilling or unable to put together an application for Interim ITRs, then we suggest BLM serve as the applicant. Of course, we can serve as technical experts to guide either AOGA or BLM in the preparation of their application, particularly in generating the polar bear take estimate.

We are concerned that additional delays at this time significantly jeopardize our ability to get ITRs in place in time for the 2019/2020 exploration season. We look forward to hearing your thoughts on the above.

--

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

**To:** Berendzen, Steve[steve\_berendzen@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-03-14T18:06:32-04:00  
**Importance:** Normal  
**Subject:** Re: Poster on single and cumulative effects of human disturbances on caribou - CARMA 9  
**Received:** 2018-03-14T18:07:21-04:00

Thanks Steve,

I'm fairly familiar with the Canada caribou decline and concern over human caused change in the boreal forest due to mining, seismic, hydro, communications, climate, roads and trails, etc. As with most wild population issues there does not seem to be an obvious reason and the cumulative impacts may play a very significant role in the dramatic declines.

Consulting with tribes seems to be a means of learning what their concerns/questions are so we can better inform the development of the EIS. I understand that we will not have answers but given the one year planning window we need to be talking and learning soon. (b) (5) DPP

BLM offered to couple the scoping with consultation. (b) (5) DPP

I did tell Karen that you will never be accused of consulting too much.

greg

On Wed, Mar 14, 2018 at 11:45 AM, Berendzen, Steve <steve\_berendzen@fws.gov> wrote:

Greg,

I'm forwarding this as an example of emerging information about caribou being impacted by human disturbance. It is preliminary information, but could have relevance to our situation.

If you have an opportunity to talk some time, I'd still like to visit with you about the public meetings with BLM. I'm fine with accompanying them and demonstrating our involvement, but I still have concerns about answering lots of questions that I anticipate coming at us.

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

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

**From:** Michael Spindler <(b) (6)>  
**Date:** Mon, Mar 12, 2018 at 9:56 AM  
**Subject:** Fwd: Poster on single and cumulative effects of human disturbances on caribou - CARMA 9  
**To:** joanna\_fox@fws.gov, steve\_berendzen@fws.gov, stephen\_arthur@fws.gov  
**Cc:** Leanna Heffner <leanna@nwblcc.org>, "Pocewicz, Amy" <amy\_pocewicz@fws.gov>, Tom Paragi <(b) (6)>, "Brainerd, Scott M (DFG)" <scott.brainerd@alaska.gov>

0000011968

Joanna, Steve, Stephen:

Last week I was in Whitehorse for a NW Boreal LCC outreach trip. We spent all day Tuesday at the CARMA-9 caribou meeting, where there was significant international representation, from Norway, Russia, and of course Canada. Lacking were US/Alaska participants, no doubt due to budgets & "international" travel restrictions (besides Leanna and I from the LCC, there were only two folks from UAA, Drs Bob White and Don Spalinger). Therefore, I thought it important to share one of the most impressive and relevant (to AK) posters/papers that was presented, attached. The paper, as presented, had significantly more detail than what is included in the poster. I learned that there has been substantial road and mining access development in Canada within the ranges of several arctic caribou herds in NWT, Nunavut, N. Quebec, and Labrador - way more than I was aware of. One graphic she showed was particularly striking -- suggesting minimal caribou success in crossing a mining road and utilizing habitat on the far side of the development. Following Ms. Plante's paper, there was lively discussion about human disturbance impacts to caribou herds. I was not encouraged by the prospects going forward. There was a break-out session on this topic that unfortunately we were not able to attend.

Ms. Plante's and the discussion's recommendations included:

"Ensure habitat integrity and establish protected areas. Need to identify critical habitat, need to identify threshold for regulating human development. Limit cumulative impacts through Landscape-level planning."

Given the last recommendation, our LCC does have some capacity to assist in the sharing of landscape conservation planning tools, if folks are interested. One of our SC members, Dr. Fiona Schmiegelow, attended the entire meeting.

Regards,

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

From: **Sabrina Plante** <[sabrina.plante.6@ulaval.ca](mailto:sabrina.plante.6@ulaval.ca)>

Date: Mon, Mar 12, 2018 at 7:08 AM

Subject: Poster on single and cumulative effects of human disturbances on caribou - CARMA 9

To: (b) (6) " (b) (6) >, "jan\_adamczewski@gov.nt.ca" <[jan\\_adamczewski@gov.nt.ca](mailto:jan_adamczewski@gov.nt.ca)>, (b) (6) " (b) (6) >, John Boulanger <[boulange@ecological.bc.ca](mailto:boulange@ecological.bc.ca)>, Kim Poole <[kpoole@aurorawildlife.com](mailto:kpoole@aurorawildlife.com)>

Hello,

Following the 9th CARMA conference in Whitehorse last week, some of you have showed interests into my research on the single and cumulative effects of human disturbances for the eastern migratory caribou of the Leaf river and George river herds in northern Quebec and

Labrador.

The manuscript including the results I presented during the conference is currently under the first round of review at Biological Conservation. I will be happy to share it with you as soon as it is accepted. In the meanwhile, I am sending you the poster I also presented at CARMA, which included the main results of the zones of influence of infrastructure and cumulative habitat loss for caribou. I hope it will help you in your current or future projects. Any comments or questions will be more than welcome.

Best regards,

Sabrina Plante

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Étudiante au doctorat / PhD candidate

Caribou Ungava (<https://www.caribou-ungava.ulaval.ca/>)

Département de Biologie, Université Laval

Québec, Québec, Canada

1045, av. de la Médecine G1V 0A6

[418-656-2131](tel:418-656-2131) poste 8152

Pavillon Alexandre-Vachon-3076

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Mike Spindler

Certified Wildlife Biologist - The Wildlife Society

Conservationist

FAA Certified Flight Instructor - Commercial Instrument Single Engine Land and Sea

**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]  
**From:** Berendzen, Steve  
**Sent:** 2018-03-14T22:47:50-04:00  
**Importance:** Normal  
**Subject:** Re: Village Meetings  
**Received:** 2018-03-14T22:47:55-04:00

Thanks, Greg - I'm fine with partnering for these meetings, (b) (5) DPP

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

On Wed, Mar 14, 2018 at 7:41 AM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

Steve,

Thanks for the note. I'm aware Karen wants to begin "pre" consultation. Her timing was inline with their anticipated NOI for beginning the EIS on the 1002 area of the coastal plain. And, to simply start building a relationship with the communities. I have been encouraging her to take the engagement serious and not just as a "one and done" consultation.

The change is probably due to me being out of state that week of the 26th for the North American Wildlife and Natural Resource Conference.

I have convinced Karen that we can help provide introductions and recognition that we are in this new law implementation together and that the refuge is important based on Subsistence, recreation, public use, polar bear, caribou, mig birds, water, etc.

I'm trying to keep the Refuge at a higher level of recognition than if BLM goes it alone.

We may not have great information to share but we can always speak to the importance of the refuge to who ever we are visiting with at the time.

We can continue to discuss and I hope we can get comfortable with our relationship side of this issue as it will go fast with the one year timeline for the EIS.

Greg

Sent from my iPhone

On Mar 13, 2018, at 5:27 PM, Berendzen, Steve <steve\_berendzen@fws.gov> wrote:

Greg,

I should have given you a heads up last week, but I even spaced out on it

yesterday when we were talking - Karen Mouritsen is very eager to have joint BLM-FWS meetings in villages to roll out the planning process for the 1002 EIS. She suggested that you, she, Shelly Jones of the Arctic District office for BLM, Fairbanks, and I visit all the potentially affected villages (Kaktovik, Barrow, Venetie, Arctic Village, and Ft Yukon) in the very near future.

Chances are you've already heard from her, since Nicole Hayes mentioned at our coordination meeting today that the outreach meetings scheduled for the week of March 26 were being postponed - I'm guessing this was generated by Karen.

(b) (5) DPP



I'd be happy to elaborate more and discuss with you if you want.

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



**To:** Wackowski, Stephen[stephen\_wackowski@ios.doi.gov]  
**Cc:** Karen Clark[karen\_clark@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-03-16T19:27:32-04:00  
**Importance:** Normal  
**Subject:** Re: Arctic Science data call  
**Received:** 2018-03-16T19:28:15-04:00  
FWS 2018 North Slope Research DOI 1002 Data Call and NSSI Annual Studies 031518 (1).xlsx

Steve,

My apology as I meant to send this yesterday after we spoke. I trust this will meet the interest per your request. If not, please let us know and we can adjust or amend.

Greg

On Wed, Feb 21, 2018 at 4:56 PM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sending to OS for consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

0000011973

**To:** Cribley, Bud[bud\_cribley@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-03-19T11:52:18-04:00  
**Importance:** Normal  
**Subject:** Re: Oil & Gas leasing in the Arctic National Wildlife Refuge (ANWR)  
**Received:** 2018-03-19T12:17:07-04:00

Thanks Bud,

I have been trying to join the BLM/Assistant Secretary call for the past month and have not made it. Steve Wackowski has been trying to get me into the calls with no acceptance. It seems pretty obvious that we are not welcome in the discussions.

Thank you for trying and asking for review.

greg

On Mon, Mar 19, 2018 at 7:36 AM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Maureen,

It is my understanding that the NOI package for the Federal Register to initiate the NEPA process for the Oil & Gas leasing in the 1002 area of ANWR has been sent forward from ASLM. Leadership in the FWS would like the opportunity to review and comment on the package before the FR notice is published. I would assume that ASFW&P would also like to review it.

Could you help us get into the review chain..

Thanks,

bud

--

**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](mailto:bud_cribley@fws.gov)**

**To:** Wackowski, Stephen[stephen\_wackowski@ios.doi.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-03-19T15:16:36-04:00  
**Importance:** Normal  
**Subject:** Fwd: ANWR 1002 Area PB Den IR Survey Summary  
**Received:** 2018-03-19T15:24:35-04:00  
FWS Polar.Bear.Den 2018 AIR Final.Report.pdf

Steve,

I think this will satisfy your request for polar bear information. I did not realize the report was this close to being provided. I see in the report there are a sampling of screen shots.

greg

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

**From:** Colligan, Mary <mary\_colligan@fws.gov>  
**Date:** Sun, Mar 18, 2018 at 3:06 PM  
**Subject:** ANWR 1002 Area PB Den IR Survey Summary  
**To:** Gregory Siekaniec <greg\_siekaniec@fws.gov>

The U.S. Fish and Wildlife Service, Marine Mammals Management Office in coordination with the U.S. Geological Survey, Alaska Science Center, Polar Bear Program, contracted with Owyhee Air Research to conduct an aerial infrared survey for maternal polar bear dens in the 1002 Area of the Arctic National Wildlife Refuge. The objectives of this survey were to survey critical portions of the 1002 Area for occupied maternal polar bear dens and document all detected high interest infrared signals, or "hotspots"; develop survey strategies for the 1002 Area designed to ensure maximum area coverage and den detection rates; and identify high priority areas within the 1002 Area where maternal polar bear denning is most likely to occur.

Survey flights were conducted over a 10-day period between February 18 - 28, 2018. Weather conditions allowed survey flights for five of the ten days, with the survey crew grounded during the other five days due to unsuitable weather. Nine high interest hotspots were identified during the survey flights. Two of the nine hotspots were identified as occupied maternal polar bear dens, with one other hotspot an unconfirmed possible den. The rest of the hotspots were identified as false positives.

The survey results confirm the existing information regarding polar bear maternal denning habitat in the 1002 Area and our understanding of how polar bears use that habitat. There is a higher density of denning habitat in the 1002 area, and polar bears use it more frequently and farther inland than in other areas of the the north slope of Alaska. The survey also confirms that aerial infrared technology, and our survey methods, can detect polar bear maternal dens in the 1002 Area.

The report from the survey work is attached. Please let us know if you have any questions.

--

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

0000011975

**To:** Siekaniec, Greg[greg\_siekaniec@fws.gov]; Mary Colligan[mary\_colligan@fws.gov]  
**From:** Wackowski, Stephen  
**Sent:** 2018-03-19T15:57:00-04:00  
**Importance:** Normal  
**Subject:** Re: ANWR 1002 Area PB Den IR Survey Summary  
**Received:** 2018-03-19T15:58:03-04:00

Sending to OS for consultation



Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Mon, Mar 19, 2018 at 3:16 PM, Siekaniec, Greg <greg\_siekaniec@fws.gov> wrote:

> Steve,  
>  
> I think this will satisfy your request for polar bear information. I did  
> not realize the report was this close to being provided. I see in the  
> report there are a sampling of screen shots.  
>  
> greg  
> ----- Forwarded message -----  
> From: Colligan, Mary <mary\_colligan@fws.gov>  
> Date: Sun, Mar 18, 2018 at 3:06 PM  
> Subject: ANWR 1002 Area PB Den IR Survey Summary  
> To: Gregory Siekaniec <greg\_siekaniec@fws.gov>  
>  
>  
> The U.S. Fish and Wildlife Service, Marine Mammals Management Office in  
> coordination with the U.S. Geological Survey, Alaska Science Center, Polar  
> Bear Program, contracted with Owyhee Air Research to conduct an aerial  
> infrared survey for maternal polar bear dens in the 1002 Area of the Arctic  
> National Wildlife Refuge. The objectives of this survey were to survey  
> critical portions of the 1002 Area for occupied maternal polar bear dens and  
> document all detected high interest infrared signals, or "hotspots"; develop  
> survey strategies for the 1002 Area designed to ensure maximum area coverage  
> and den detection rates; and identify high priority areas within the 1002  
> Area where maternal polar bear denning is most likely to occur.  
>

0000011976

> Survey flights were conducted over a 10-day period between February 18 - 28,  
> 2018. Weather conditions allowed survey flights for five of the ten days,  
> with the survey crew grounded during the other five days due to unsuitable  
> weather. Nine high interest hotspots were identified during the survey  
> flights. Two of the nine hotspots were identified as occupied maternal  
> polar bear dens, with one other hotspot an unconfirmed possible den. The  
> rest of the hotspots were identified as false positives.  
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> The survey results confirm the existing information regarding polar bear  
> maternal denning habitat in the 1002 Area and our understanding of how polar  
> bears use that habitat. There is a higher density of denning habitat in the  
> 1002 area, and polar bears use it more frequently and farther inland than in  
> other areas of the the north slope of Alaska. The survey also confirms that  
> aerial infrared technology, and our survey methods, can detect polar bear  
> maternal dens in the 1002 Area.  
>  
> The report from the survey work is attached. Please let us know if you have  
> any questions.  
>  
> --  
> 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  
>  
>

**To:** Crystal Leonetti[crystal\_leonetti@fws.gov]  
**From:** Siekaniec, Greg  
**Sent:** 2018-03-20T13:54:31-04:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain  
**Received:** 2018-03-20T13:56:21-04:00  
[ATT00001.htm](#)  
[Meeting Topics.pdf](#)

FYI

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

**From:** **Stephen Wackowski** <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Date:** Thu, Mar 15, 2018 at 8:49 AM  
**Subject:** Fwd: Coastal Plain  
**To:** [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)

Sent from my iPhone

Begin forwarded message:

**From:** "Murphy, Ted" <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Date:** March 14, 2018 at 12:45:15 PM AKDT  
**To:** Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>, Aaron Moody <[aaron.moody@sol.doi.gov](mailto:aaron.moody@sol.doi.gov)>, Michael Nedd <[mnedd@blm.gov](mailto:mnedd@blm.gov)>, Kathleen Benedetto <[kbenedetto@blm.gov](mailto:kbenedetto@blm.gov)>, "Seidlitz, Joseph (Gene)" <[gseidlit@blm.gov](mailto:gseidlit@blm.gov)>, "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>, Michael Gieryic <[mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)>, Laura Brown <[Laura.Brown@sol.doi.gov](mailto:Laura.Brown@sol.doi.gov)>, Karen Hawbecker <[KAREN.HAWBECKER@sol.doi.gov](mailto:KAREN.HAWBECKER@sol.doi.gov)>, Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, Timothy Spisak <[tspisak@blm.gov](mailto:tspisak@blm.gov)>  
**Cc:** "Miriam (Nicole) Hayes" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>, Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>, Jeff Brune <[jbrune@blm.gov](mailto:jbrune@blm.gov)>  
**Subject:** Coastal Plain

For todays Coastal Plain Discussion. Please see attached.

Ted

--

Ted A Murphy  
Alaska-Associate State Director

0000011978

907-271-5076

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Steve Berendzen[steve\_berendzen@fws.gov]  
**From:** Leonetti, Crystal  
**Sent:** 2018-03-20T15:11:26-04:00  
**Importance:** Normal  
**Subject:** Re: Consultation with Tribes, Corporations on 1002  
**Received:** 2018-03-20T15:12:48-04:00

In further discussion with Steve Berendzen and Hollis Twitchell, I am reminded that it is not the federal government's choice to decide who to consult. We should reach out to ANY potentially affected tribal governments and ask them whether they would like to consult. As an example, Arctic Refuge staff reached out to all the tribes listed in the CCP consultation list, but only 4 tribes decided to consult. The rest of them decided to keep informed through regular communication, but not to engage in formal consultation. Therefore, we think we should add the other tribes to the list: Chalkystik, Beaver Creek, Birch Creek, Circle, Stevens Village and Anaktuvuk Pass. We should ask them if they'd like to consult and go from there.

*Crystal (Ciisquq) Leonetti, Yupik*  
Alaska Native Affairs Specialist  
Alaska Region - R7 External Affairs **tEAm**  
U.S. Fish & Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503

Direct: 907-786-3868  
Mobile: 907-230-8419

“Consultation is a process that aims to create effective collaboration with Indian tribes and to inform Federal decision makers. Consultation is built upon government to government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government to government consultation process.” S.O. 3317 (Department of the Interior Policy on Consultation with Indian Tribes)

On Tue, Mar 20, 2018 at 10:03 AM, Leonetti, Crystal <[crystal\\_leonetti@fws.gov](mailto:crystal_leonetti@fws.gov)> wrote:

Greg,

The DOI Policy on Consultation with Indian Tribes says that we shall consult on any "Departmental Action with Tribal Implications", which is defined as *any Departmental regulation, rulemaking, policy, guidance, legislative proposal, grant funding formula changes, or operational activity that may have a substantial direct effect on an Indian Tribe on matters including, but not limited to: 1.) Tribal cultural practices, land, resources, or access to traditional areas of cultural or religious importance on federally managed lands.* It also says that "the appropriate Departmental officials are those individuals who are knowledgeable about the matters at hand, are authorized to speak for the Department, and exercise delegated authority in the disposition and implementation of an agency action."

To remain consistent with policy, DOI attendees should be DOI officials at the decision making level (D.C. level), along with subject matter experts (land, resources, wildlife) and a liaison



(suggest Hollis Twitchell) should consult with the Native Village of Kaktovik, Venetie Traditional Council, Village of Arctic Village, Venetie Tribal Government, Inupiat Community of the Arctic Slope and possibly Native Village of Fort Yukon/Gwichyaa Zhee and Native Village of Barrow.

The village and regional corporations in the area should also be consulted.

The scheduling of the meetings should be in close coordination with what works for the tribes.

Hollis has a respectful working relationship with the tribes and is excellent at making sure the entire council is available to meet and has materials on the subject of the meeting in advance.

*Crystal (Ciisquq) Leonetti, Yupik*  
Alaska Native Affairs Specialist  
Alaska Region - R7 External Affairs **tEAm**  
U.S. Fish & Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503

Direct: 907-786-3868

Mobile: 907-230-8419

“Consultation is a process that aims to create effective collaboration with Indian tribes and to inform Federal decision makers. Consultation is built upon government to government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government to government consultation process.” S.O. 3317 (Department of the Interior Policy on Consultation with Indian Tribes)

**To:** Wackowski, Stephen[stephen\_wackowski@ios.doi.gov]  
**Cc:** Siekaniec, Greg[greg\_siekaniec@fws.gov]; Joseph Balash[joseph\_balash@ios.doi.gov]  
**From:** Leonetti, Crystal  
**Sent:** 2018-03-20T20:15:22-04:00  
**Importance:** Normal  
**Subject:** Re: Tribal/ANCSA consultation on 1002  
**Received:** 2018-03-20T20:22:43-04:00

Hi Steve,  
Yes, just let me know when.  
Crystal

*Crystal (Ciisquq) Leonetti, Yupik*  
Alaska Native Affairs Specialist  
Alaska Region - R7 External Affairs **tEAm**  
U.S. Fish & Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503

Direct: 907-786-3868  
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“Consultation is a process that aims to create effective collaboration with Indian tribes and to inform Federal decision makers. Consultation is built upon government to government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government to government consultation process.” S.O. 3317 (Department of the Interior Policy on Consultation with Indian Tribes)

On Tue, Mar 20, 2018 at 3:37 PM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Thanks Greg.

Crystal- Do you have a quick 5 mins to hop on a call with Joe and I tomorrow? We would like pick your brain on how best to proceed.

-steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

On Tue, Mar 20, 2018 at 7:27 PM, Siekaniec, Greg <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Steve,

Please see the note from Crystal. Her guidance is spot on from my experience here in AK. I will again add the idea that consultation and public scoping should not be "blended" into the same visit as it will likely be construed as we are treating the tribe or corporation as just another member of the "public".

greg

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

From: **Leonetti, Crystal** <[crystal\\_leonetti@fws.gov](mailto:crystal_leonetti@fws.gov)>

Date: Tue, Mar 20, 2018 at 3:17 PM

Subject: Tribal/ANCSA consultation on 1002

To: Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

Hi Greg,

Thanks for asking about consulting with tribes and ANCSA corporations on the 1002 lease sale draft EIS. I am reminded as I read through the DOI policy on consultation with Indian tribes (\*excerpt below) that it is not the Federal government's choice to decide who to consult. We should reach out to any potentially affected tribal governments and ask them whether they would like to consult. As an example, Arctic Refuge staff reached out to 11 of the tribes listed in the CCP consultation list, but only 4 tribes decided to consult. The rest of them decided to keep informed through regular communication, but not to engage in formal consultation.

I recommend that we reach out to the following tribes via phone to determine their level of interest, then send a letter based on their response about their desired level of engagement:

Native Village of Kaktovik  
Venetie Traditional Council  
Village of Arctic Village  
Venetie Tribal Government  
Inupiat Community of the Arctic Slope  
Gwichyaa Zhee Gwich'in Tribal Government/Native Village of Fort Yukon  
Native Village of Barrow  
Native Village of Stevens  
Naqsrarmiut Tribal Government/Village of Anaktuvuk Pass  
Beaver Traditional Council  
Chalkyitsik Village Council  
Dundu Gwich'in/Birch Creek Village Council  
Native Village of Nuiqsut

I also recommend that we reach out to the following ANCSA corporations in the same manner:

Arctic Slope Regional Corporation  
Kaktovik Inupiat Corporation

To remain consistent with policy, DOI attendees should be DOI officials at the decision making level (D.C. level), along with subject matter experts (land, resources, wildlife) and a liaison (suggest Hollis Twitchell) should be present and engaged at the meetings. The smaller the Federal crowd, the better.

Scheduling of meetings should be in close coordination with tribes. Hollis has a respectful working relationship with the tribes and is excellent at making sure the entire council is available to meet and that they have materials on the subject of the meeting in advance.

I agree with the idea that the 2 DOI agencies consult together. This is consistent with requests from Tribes that we reduce our burden on them by coordinating our consultation meetings.

*\*The DOI Policy on Consultation with Indian Tribes says that we shall consult on any "Departmental Action with Tribal Implications", which is defined as any Departmental regulation, rulemaking, policy, guidance, legislative proposal, grant funding formula changes, or operational activity that may have a substantial direct effect on an Indian Tribe on matters including, but not limited to: 1.) Tribal cultural practices, land, resources, or access to traditional areas of cultural or religious importance on federally managed lands. It also says that "the appropriate Departmental officials are those individuals who are knowledgeable about the matters at hand, are authorized to speak for the Department, and exercise delegated authority in the disposition and implementation of an agency action."*

*Crystal (Ciisquq) Leonetti, Yupik*  
Alaska Native Affairs Specialist  
Alaska Region - R7 External Affairs **tEAm**  
U.S. Fish & Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503

Direct: 907-786-3868

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“Consultation is a process that aims to create effective collaboration with Indian tribes and to inform Federal decision makers. Consultation is built upon government to government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. Communication will be open and transparent without compromising the rights of Indian tribes or the government to government consultation process.”  
S.O. 3317 (Department of the Interior Policy on Consultation with Indian Tribes)

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-03-21T20:13:44-04:00  
**Importance:** Normal  
**Subject:** FLIR Report  
**Received:** 2018-03-21T20:13:48-04:00  
FWS Polar Bear Den 2018 AIR Final Report fws.docx

Greg Patrick and I went through the contractor report for the polar bear FLIR survey in the 1002 area and in the attached document (b) (5) DPP

[REDACTED]

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

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Boario, Sara  
**Sent:** 2018-03-22T14:55:49-04:00  
**Importance:** Normal  
**Subject:** Fwd: North American Talking Points  
**Received:** 2018-03-22T15:01:24-04:00  
[Directorate TPs on Hot Issues v6.docx](#)

just in case you haven't seen these...

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

**From:** **Huggler, Matthew** <[matthew\\_huggler@fws.gov](mailto:matthew_huggler@fws.gov)>  
**Date:** Thu, Mar 22, 2018 at 10:41 AM  
**Subject:** Fwd: North American Talking Points  
**To:** Anna Munoz <[anna\\_munoz@fws.gov](mailto:anna_munoz@fws.gov)>, Chuck Traxler <[charles\\_traxler@fws.gov](mailto:charles_traxler@fws.gov)>, Jason Holm <[jason\\_holm@fws.gov](mailto:jason_holm@fws.gov)>, Jeff Fleming <[jeffrey\\_m\\_fleming@fws.gov](mailto:jeffrey_m_fleming@fws.gov)>, John Heil <[john\\_heil@fws.gov](mailto:john_heil@fws.gov)>, Kyla Hastie <[kyla\\_hastie@fws.gov](mailto:kyla_hastie@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Brian Hires <[brian\\_hires@fws.gov](mailto:brian_hires@fws.gov)>  
**Cc:** Barbara Wainman <[barbara\\_wainman@fws.gov](mailto:barbara_wainman@fws.gov)>

FYI -

---

Matthew C. Huggler  
Deputy Assistant Director - External Affairs  
U.S. Fish and Wildlife Service  
5275 Leesburg Pike, MS: EA  
Falls Church, VA 22041-3803  
(703) 358-2243 (office)  
(202) 460-8402 (cell)

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

**From:** **Morris, Charisa** <[charisa\\_morris@fws.gov](mailto:charisa_morris@fws.gov)>  
**Date:** Thu, Mar 22, 2018 at 12:51 PM  
**Subject:** North American Talking Points  
**To:** FWS Directorate & Deputies <[fwsdirectanddep@fws.gov](mailto:fwsdirectanddep@fws.gov)>  
**Cc:** FWS Directorate Secretaries <[fws\\_directorate\\_secretaries@fws.gov](mailto:fws_directorate_secretaries@fws.gov)>

As discussed during last week's VTC, please see attached for use during next week's conference.

--

[Charisa Morris@fws.gov](mailto:Charisa_Morris@fws.gov) | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service  
| 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial  
cell: 301-875-8937

0000011986

--

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



**To:** Greg Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Mouritsen, Karen  
**Sent:** 2018-03-22T18:45:34-04:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain March 21  
**Received:** 2018-03-22T18:46:05-04:00  
[List of entities to cooperate-consult 3.21.18 \(2\).docx](#)  
[Agenda March 21 2018 \(1\).docx](#)

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

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

**From:** **Murphy, Ted** <t75murph@blm.gov>  
**Date:** Wed, Mar 21, 2018 at 3:25 PM  
**Subject:** Coastal Plain March 21  
**To:** "Wackowski, Stephen" <stephen\_wackowski@ios.doi.gov>, Joseph Balash <joseph\_balash@ios.doi.gov>, Michael Nedd <mnedd@blm.gov>, "Seidlitz, Joseph (Gene)" <gseidlitz@blm.gov>, Michael Gieryic <mike.gieryic@sol.doi.gov>, Karen Mouritsen <kmourits@blm.gov>, "Miriam (Nicole) Hayes" <mnhayes@blm.gov>, Kevin Haugrud <jack.haugrud@sol.doi.gov>, Karen Hawbecker <KAREN.HAWBECKER@sol.doi.gov>, Kathleen Benedetto <kbenedetto@blm.gov>, Jeff Brune <jbrune@blm.gov>, Ted Murphy <t75murph@blm.gov>, Laura Brown <Laura.Brown@sol.doi.gov>, Aaron Moody <aaron.moody@sol.doi.gov>

Good afternoon,

Attached is a proposed discussion list for today's and possibly the Friday call at 12:30/4:30.

Also attached are the suggestions for Consultations with Tribal Governments.

Ted

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

0000011988



**To:** Gregory Siekaniec[gregory\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]; Sara Boario[sara\_boario@fws.gov]  
**From:** Howard, Amee  
**Sent:** 2018-03-25T14:45:43-04:00  
**Importance:** Normal  
**Subject:** Updated Discussion Topics for Congressional Meetings this week (Week of March 26th)  
**Received:** 2018-03-25T14:45:49-04:00  
[3.25.18 - Congressional Meeting Alaska Updates.docx](#)  
[3.26.18 to 3.28.18 - USFWS Itinerary for Tomassi and Hall v 4.0.docx](#)

Hi All,

Attached are the updated discussion topics that we covered at the State Director's meeting at the end of January. I believe these will work the best for both Karen's meeting with Chris Tomassi tomorrow and also for Sara's back pocket for her Hill visits this week.

I have also attached the itinerary for Chris...just to have both pieces in one place in all of your inboxes.

Greg and Sara - Safe Travels!

See you tomorrow Karen!

Thanks so much!

Amee

--

*Amee Howard*

*Congressional and State Liaison*

U.S. Fish & Wildlife Service

Anchorage, Alaska

Office: (907)786-3509

Mobile: (907)229-8575

<https://www.fws.gov/alaska/>

"Day in the Office"

**To:** Greg Sheehan[greg\_j\_sheehan@fws.gov]  
**Cc:** Jim Kurth[jim\_kurth@fws.gov]; Stephen Guertin[stephen\_guertin@fws.gov]; Cynthia Martinez[cynthia\_martinez@fws.gov]; Gary Frazer[gary\_frazer@fws.gov]; Gregory Siekaniec[greg\_siekaniec@fws.gov]; Barbara Wainman[barbara\_wainman@fws.gov]; Karen Mouritsen[KMourits@blm.gov]  
**From:** Bud Cribley  
**Sent:** 2018-03-29T13:10:41-04:00  
**Importance:** Normal  
**Subject:** Fwd: [EXTERNAL] Meeting request  
**Received:** 2018-03-29T13:10:52-04:00

Greg,

I want to share with you an issue that has come up and a heads up on that issue.

You will see below an email I received from Danielle Chesky with the Embassy of Canada (she was apart of the group from Canada that met with you earlier this year) requesting a meeting to discuss Canada's involvement in BLM/FWS plans to lease and develop O&G in the Arctic coastal plain.

I have shared this email with Greg Siekaniec and Karen Mouritsen (BLM Alaska State Director). You can see from her response she will be sharing with her leadership today.

In addition I shared this email and asked Laura Brown (Department Solicitor) about how we would, if we can, involve Canada in the upcoming EIS. She has shared this with other solicitors in the department looking for how this should be handled.

If you have questions or if I heard anything more I will let you know.

Hope your meeting is going well and we will see you next week.

Bud

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](mailto:bud_cribley@fws.gov)

Sent from my iPad

Begin forwarded message:

**From:** "Mouritsen, Karen" <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Date:** March 28, 2018 at 7:56:14 PM EDT  
**To:** "Cribley, Bud" <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>  
**Cc:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "Hayes, Miriam (Nicole)"

<[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>, Serena Sweet  
<[ssweet@blm.gov](mailto:ssweet@blm.gov)>

**Subject: Re: [EXTERNAL] Meeting request**

Thank you Bud. I will ask for guidance tomorrow afternoon when I have a call with our leadership.

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

On Tue, Mar 27, 2018 at 8:20 AM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Karen/Greg,

I wanted to share this email with you all before I share with Greg Sheehan and Brian Steed. Any suggestions on how we can facilitate this.

Bud

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

From: <[Danielle.Chesky@international.gc.ca](mailto:Danielle.Chesky@international.gc.ca)>

Date: Mon, Mar 26, 2018 at 11:26 AM

Subject: [EXTERNAL] Meeting request

To: [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)

Bud,

Thanks for taking the call. As a follow up to the FWS/CWS bilateral on February 13, we were hoping to schedule a meeting with the Bureau of Land Management and FWS to further discuss the process and scientific basis that Canada can offer in regards to the opening of the Arctic Refuge. As our principals discussed on February 13, the long-standing 1987 Treaty or Agreement between Canada and the U.S. provides a sound basis for having these sorts of discussions, whereby each country can contribute its insights and expertise, especially as past scientific reviews from Canadian and U.S. agencies have suggested direct impacts from development within the 1002 lands on the Porcupine Caribou Herd that crosses

the Alaska/Yukon border. Given the strong connection and dependence on the herd by indigenous peoples in Canada, and the supporting 1987 Treaty, we would like to utilize the long-standing agreement and processes to continue our cross-border work and discussions.

As part of the upcoming trilateral meeting, Basile van Havre will be in town, supporting CWS at the Executive Table meeting through Thursday, April 12. Basile would have an opportunity to have an in-person discussion on April 13<sup>th</sup> with the respective BLM and FWS individuals. We would greatly appreciate any assistance that could be provided in securing this meeting.

To note, we have also been in contact with DOI's International Office, who directed us to work with our FWS counterparts, given the strong cross-border work already occurring on this and other issues.

Please don't hesitate to reach out with further questions, and hope we can secure this discussion. Thank you~



Danielle Chesky  
Environment and Energy Section, Embassy of Canada

501 Pennsylvania Avenue NW, Washington DC 20001

[danielle.chesky@international.gc.ca](mailto:danielle.chesky@international.gc.ca)

Tel: (202) 448-6313  
Fax: (202) 448-6506

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Government of Canada | Gouvernement du Canada

<image002.jpg>

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**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](mailto:bud_cribley@fws.gov)**

**To:** Cribley, Bud[bud\_cribley@fws.gov]  
**Cc:** Jim Kurth[jim\_kurth@fws.gov]; Stephen Guertin[stephen\_guertin@fws.gov]; Barbara Wainman[barbara\_wainman@fws.gov]; Gregory Siekaniec[greg\_siekaniec@fws.gov]; Charisa Morris[charisa\_morris@fws.gov]; Cynthia Martinez[cynthia\_martinez@fws.gov]  
**From:** gregory\_sheehan@fws.gov  
**Sent:** 2018-03-31T23:30:56-04:00  
**Importance:** Normal  
**Subject:** Re: [EXTERNAL] Meeting request  
**Received:** 2018-03-31T23:31:23-04:00

Bud,  
Sounds like a meeting on April 13 may be in order if we can get some solicitors to the meeting that can speak to the issue. I am not sure what our authority is to speak on this matter at an international relations level. Please keep us updated on what you are hearing.

Thanks  
Greg

On Fri, Mar 30, 2018 at 12:02 PM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Greg,

Following is the email I received back from Karen Mouritsen regarding the requested meeting with Canada regarding the Porcupine Caribou herd and the Coastal Plain.

Bud

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

**From:** Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>  
**Date:** Fri, Mar 30, 2018 at 10:20 AM  
**Subject:** Re: [EXTERNAL] Meeting request  
**To:** Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>  
**Cc:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "Hayes, Miriam (Nicole)" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>, Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>

Sending to BLM for consultation



Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

0000011994

On Wed, Mar 28, 2018 at 11:11 PM, Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Thanks for the heads up. I will make our leadership aware of this email. Look forward to any feedback.

FYI, the solicitors here in DC are looking at this also to provide feedback.

Bud

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](mailto:bud_cribley@fws.gov)

Sent from my iPad

On Mar 28, 2018, at 7:56 PM, Mouritsen, Karen <[kmourits@blm.gov](mailto:kmourits@blm.gov)> wrote:

Thank you Bud. I will ask for guidance tomorrow afternoon when I have a call with our leadership.

Karen E. Mouritsen  
Acting State Director for BLM-Alaska  
phone 907-271-5080  
cell 202-329-2030

On Tue, Mar 27, 2018 at 8:20 AM, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Karen/Greg,

I wanted to share this email with you all before I share with Greg Sheehan and Brian Steed. Any suggestions on how we can facilitate this.

Bud

----- Forwarded message -----  
From: <[Danielle.Chesky@international.gc.ca](mailto:Danielle.Chesky@international.gc.ca)>  
Date: Mon, Mar 26, 2018 at 11:26 AM  
Subject: [EXTERNAL] Meeting request  
To: [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)

Bud,

Thanks for taking the call. As a follow up to the FWS/CWS bilateral on February 13, we were hoping to schedule a meeting with the Bureau of Land Management and FWS to further discuss the process and scientific basis that Canada can offer in regards to the opening of the Arctic Refuge. As our principals discussed on February 13, the long-standing 1987 Treaty or Agreement between Canada and the U.S. provides a sound basis for having these sorts of discussions, whereby each country can contribute its insights and expertise, especially as past scientific reviews from Canadian and U.S. agencies have suggested direct impacts from development within the 1002 lands on the Porcupine Caribou Herd that crosses the Alaska/Yukon border. Given the strong connection and dependence on the herd by indigenous peoples in Canada, and the supporting 1987 Treaty, we would like to utilize the long-standing agreement and processes to continue our cross-border work and discussions.

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To note, we have also been in contact with DOI's International Office, who directed us to work with our FWS counterparts, given the strong cross-border work already occurring on this and other issues.

Please don't hesitate to reach out with further questions, and hope we can secure this discussion. Thank you~



Danielle Chesky  
Environment and Energy Section, Embassy of Canada



501 Pennsylvania Avenue NW, Washington DC 20001

danielle.chesky@international.gc.ca

Tel: (202) 448-6313

Fax: (202) 448-6506

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Canada            Canada

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**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](mailto: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](mailto:bud_cribley@fws.gov)**

--

Greg Sheehan

Principal Deputy Director

US Fish and Wildlife Service

1849 C Street NW, Room 3358

Washington, DC 20240

Office 202 208 4545

Cell 202 676 7675

**To:** Close, Ryan[ryan\_close@ios.doi.gov]  
**Cc:** Olivia Sierra Villalvazo[olivia\_sierravillalvazo@ios.doi.gov]; Greg Sheehan[greg\_j\_sheehan@fws.gov]; Jim Kurth[jim\_kurth@fws.gov]; Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Mouritsen[KMourits@blm.gov]; Senhadji, Karen M[Karen\_Senhadji@ios.doi.gov]; David Downes[david\_downes@ios.doi.gov]  
**From:** Cribley, Bud  
**Sent:** 2018-04-02T16:02:45-04:00  
**Importance:** Normal  
**Subject:** Re: [EXTERNAL] Meeting request  
**Received:** 2018-04-02T16:03:48-04:00

Thank you for the clarification.

Bud

On Mon, Apr 2, 2018 at 3:50 PM, Close, Ryan <ryan\_close@ios.doi.gov> wrote:

Sending to OS for consultation



Ryan Close  
Office of International Affairs  
U.S. Department of the Interior

(202) 208-3004  
[www.doi.gov/intl](http://www.doi.gov/intl)

On Mon, Apr 2, 2018 at 3:33 PM, Cribley, Bud <bud\_cribley@fws.gov> wrote:

Ryan,

I received an invitation from you on March 30th for a coordination meeting with Canada. I had been previously contacted by a representative from the Canadian gov. (see note below) looking for some help to set up a meeting between FWS/BLM and Basile van Havre to discuss Canada's potential role in the NEPA BLM will be doing for O&G development in the 1002 and its effects on the international caribou herd the Porcupine Caribou herd. Your meeting is schedule for April 18th. Do you see it serving that role??

Bud

----- Forwarded message -----  
From: <[Danielle.Chesky@international.gc.ca](mailto:Danielle.Chesky@international.gc.ca)>  
Date: Mon, Mar 26, 2018 at 11:26 AM  
Subject: [EXTERNAL] Meeting request

0000011998

To: [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)

Bud,

Thanks for taking the call. As a follow up to the FWS/CWS bilateral on February 13, we were hoping to schedule a meeting with the Bureau of Land Management and FWS to further discuss the process and scientific basis that Canada can offer in regards to the opening of the Arctic Refuge. As our principals discussed on February 13, the long-standing 1987 Treaty or Agreement between Canada and the U.S. provides a sound basis for having these sorts of discussions, whereby each country can contribute its insights and expertise, especially as past scientific reviews from Canadian and U.S. agencies have suggested direct impacts from development within the 1002 lands on the Porcupine Caribou Herd that crosses the Alaska/Yukon border. Given the strong connection and dependence on the herd by indigenous peoples in Canada, and the supporting 1987 Treaty, we would like to utilize the long-standing agreement and processes to continue our cross-border work and discussions.

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To note, we have also been in contact with DOI's International Office, who directed us to work with our FWS counterparts, given the strong cross-border work already occurring on this and other issues.

Please don't hesitate to reach out with further questions, and hope we can secure this discussion. Thank you~



Danielle Chesky  
Environment and Energy Section, Embassy of Canada

0000011999

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Canada            Canada

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**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](mailto: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](mailto:bud_cribley@fws.gov)**

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Patrick Lemons[patrick\_lemons@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-04-02T16:52:43-04:00  
**Importance:** Normal  
**Subject:** PB FLIR and Hilcorp IHA  
**Received:** 2018-04-02T17:01:26-04:00

Greg & Karen There are a couple of issues we wanted to bring to your attention and seek your guidance on.

(1) Polar Bear FLIR: Steve Wackowski initiated a conversation pursuing the use of a DOI fleet aircraft for polar bear FLIR surveys next December and for the next several years. We have now been contacted by Brian Lubinski, Flyway Biologist/Midwest Region Aviation Manager. Mr. Lubinski has informed us that that the DOI fleet Kodiak aircraft he is assigned is going to be converted to an air borne remote sensing platform and he wants to know if we are interested in using the aircraft which would also involve purchasing or leasing a gimbal mounted FLIR sensor.

As you know, the aerial infrared polar bear den surveys have typically been a mitigation measure stipulated in the Beaufort Sea ITRs and the implementation responsibility falls to the LOA holders. So, our program has neither the need nor the funding to support acquisition of aviation assets or fitting them out to conduct such surveys.

I am concerned that if we send a response to Mr. Lubinski stating that we are not interested he may find that in direct contrast to the direction he received from Mr. Wackowski. So, I am seeking your guidance before responding.

(2) Hilcorp IHA: The package was submitted to HQ through DTS last Wednesday. The project applicant has requested that the IHA be issued by May 23<sup>rd</sup> which is just over 7 weeks from now and that includes a 30 day public comment period. It is highly unlikely we will meet the applicant's desired timeline, so we recommend we contact them as to that fact. However, we do not know how to predict how long it will take to process through headquarters so do not know what to tell Hilcorp other than it will be late. We have been working with our headquarters contacts so they are aware of the project and ready for the package, but it is more the people above and around them that we don't know how to predict.

Please let me know if you would like me to set up a briefing on these topics.

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

0000012001

**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**From:** Boario, Sara  
**Sent:** 2018-04-02T17:46:11-04:00  
**Importance:** Normal  
**Subject:** Fwd: Coastal Plain Communication Plan  
**Received:** 2018-04-02T17:47:16-04:00  
DTS 1970 Communications Plan NOI.docx

just keeping you in the loop in case you haven't seen these. I actually talked with Bud about this last week, as well...and Lesli and I are working to get out staff together to talk communications coordination more broadly.

more soon.

sb

----- Forwarded message -----  
**From:** **Ellis-Wouters, Lesli** <lellis@blm.gov>  
**Date:** Mon, Apr 2, 2018 at 1:25 PM  
**Subject:** Coastal Plain Communication Plan  
**To:** Sara Boario <sara\_boario@fws.gov>

Sara,  
I don't know if I've shared this with you yet. We are developing some Q&As in anticipation of the Federal Register notice and I can forward those when they are complete.

We are also developing a web page for the EIS. We don't have much imagery from the Coastal Plain and was wondering if you might be able to assist with that. So far, the only image we have is the map from the Tax Act.

***Lesli J. Ellis-Wouters***  
Communications Director  
Alaska State Office  
Bureau of Land Management  
907-271-4418 | cell - 907-331-8763

--

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



**To:** Gregory Siekaniec[greg\_siekaniec@fws.gov]; Karen Clark[karen\_clark@fws.gov]  
**Cc:** Mitch Ellis[mitch\_ellis@fws.gov]  
**From:** Colligan, Mary  
**Sent:** 2018-04-04T22:12:45-04:00  
**Importance:** Normal  
**Subject:** Revised Plan  
**Received:** 2018-04-04T22:12:52-04:00  
2018\_1002\_operations\_plan\_v3.xlsx

Mitch and I have attempted to capture the edits we talked about in the attached revised plan. Please let us know if you want additional edits.

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:** [Google Calendar](#) on behalf of [Greg Siekaniec](#)  
**To:** [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)  
**Subject:** Accepted: Internal Meeting - Area 1002 @ Thu Dec 21, 2017 9am - 10am (catherine\_gulac@ios.doi.gov)  
**Attachments:** [invite.ics](#)

---

Greg Siekaniec has accepted this invitation.

Internal Meeting - Area 1002

Mr. Cason's leader code (b) (5) CIP

When Thu Dec 21, 2017 9am – 10am Eastern Time

Where 6120 or call (b) (5) CIP, Participant Code (b) (5) CIP, JCason's Leader Code (b) (5) CIP (map <[https://maps.google.com/maps?q=6120+or+call+\(b\) \(5\) CIP,+Participant+Code+\(b\) \(5\) CIP,+JCason%27s+Leader+Code+\(b\) \(5\) CIP 3&hl=en](https://maps.google.com/maps?q=6120+or+call+(b) (5) CIP,+Participant+Code+(b) (5) CIP,+JCason%27s+Leader+Code+(b) (5) CIP 3&hl=en)>)

Video call [https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac) <[https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfclurdg](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfclurdg)>

Calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)

Who • [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) - organizer, optional

- [todd\\_willens@ios.doi.gov](mailto:todd_willens@ios.doi.gov)
- [jack.haugrud@sol.doi.gov](mailto:jack.haugrud@sol.doi.gov)
- [james\\_cason@ios.doi.gov](mailto:james_cason@ios.doi.gov)
- [scott\\_cameron@ios.doi.gov](mailto:scott_cameron@ios.doi.gov)
- [jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)
- [joe.darnell@sol.doi.gov](mailto:joe.darnell@sol.doi.gov)
- [katharine\\_macgregor@ios.doi.gov](mailto:katharine_macgregor@ios.doi.gov)
- [greg\\_j\\_sheehan@fws.gov](mailto:greg_j_sheehan@fws.gov)
- [andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)
- (b) (6) David Bernhardt
- [zachariah\\_gambill@fws.gov](mailto:zachariah_gambill@fws.gov)
- [stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)
- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [michael\\_gale@ios.doi.gov](mailto:michael_gale@ios.doi.gov)
- [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)
- [peg.romanik@sol.doi.gov](mailto:peg.romanik@sol.doi.gov)
- [richard.goeken@sol.doi.gov](mailto:richard.goeken@sol.doi.gov)
- [tasha\\_l\\_robbins@ios.doi.gov](mailto:tasha_l_robbins@ios.doi.gov) - optional
- [maureen\\_foster@ios.doi.gov](mailto:maureen_foster@ios.doi.gov) - optional
- [marigrace.caminiti@sol.doi.gov](mailto:marigrace.caminiti@sol.doi.gov) - optional
- [thomas\\_irwin@fws.gov](mailto:thomas_irwin@fws.gov) - optional
- [roslyn\\_sellars@fws.gov](mailto:roslyn_sellars@fws.gov) - optional

Your attendance is optional.

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) because you are subscribed for invitation replies on calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.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](#)

<<https://support.google.com/calendar/answer/37135#forwarding>> .



**From:** [Google Calendar](#) on behalf of [Greg Siekaniec](#)  
**To:** [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)  
**Subject:** Accepted: Internal Meeting - Area 1002 @ Thu Dec 21, 2017 5pm - 6pm (catherine\_gulac@ios.doi.gov)  
**Attachments:** [invite.ics](#)

---

Greg Siekaniec has accepted this invitation.

Internal Meeting - Area 1002

Mr. Cason's leader code (b) (5) #

When Thu Dec 21, 2017 5pm - 6pm Eastern Time

Where 6120 or call (b) (5) CIP, Participant Code (b) (5) CIP (map <[https://maps.google.com/maps?q=6120+or+call+\(b\) \(5\) CIP](https://maps.google.com/maps?q=6120+or+call+(b) (5) CIP)  
+Participant+Code+(b) (5) CIP &hl=en> )

Video call [https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac) <[https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfcurdg](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfcurdg)>

Calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)

Who • [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) - organizer, optional

- [todd\\_willens@ios.doi.gov](mailto:todd_willens@ios.doi.gov)
- [jack.haugrud@sol.doi.gov](mailto:jack.haugrud@sol.doi.gov)
- [james\\_cason@ios.doi.gov](mailto:james_cason@ios.doi.gov)
- [scott\\_cameron@ios.doi.gov](mailto:scott_cameron@ios.doi.gov)
- [jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)
- [joe.darnell@sol.doi.gov](mailto:joe.darnell@sol.doi.gov)
- [katharine\\_macgregor@ios.doi.gov](mailto:katharine_macgregor@ios.doi.gov)
- [greg\\_j\\_sheehan@fws.gov](mailto:greg_j_sheehan@fws.gov)
- [andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)
- (b) (6) David Bernhardt
- [zachariah\\_gambill@fws.gov](mailto:zachariah_gambill@fws.gov)
- [stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)
- [benjamin.jesup@sol.doi.gov](mailto:benjamin.jesup@sol.doi.gov)
- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [michael\\_gale@ios.doi.gov](mailto:michael_gale@ios.doi.gov)
- [tasha\\_l\\_robbs@ios.doi.gov](mailto:tasha_l_robbs@ios.doi.gov) - optional
- [maureen\\_foster@ios.doi.gov](mailto:maureen_foster@ios.doi.gov) - optional
- [marigrace.caminiti@sol.doi.gov](mailto:marigrace.caminiti@sol.doi.gov) - optional
- [thomas\\_irwin@fws.gov](mailto:thomas_irwin@fws.gov) - optional
- [roslyn\\_sellars@fws.gov](mailto:roslyn_sellars@fws.gov) - optional

Your attendance is optional.

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) because you are subscribed for invitation replies on calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.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](#)

<<https://support.google.com/calendar/answer/37135#forwarding>> .

**From:** [Google Calendar](#) on behalf of [Greg Siekaniec](#)  
**To:** [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)  
**Subject:** Accepted: Internal Meeting - Area 1002 @ Thu Dec 21, 2017 5pm - 6pm (catherine\_gulac@ios.doi.gov)  
**Attachments:** [invite.ics](#)

---

Greg Siekaniec has accepted this invitation.

Internal Meeting - Area 1002

Mr. Cason's leader code (b) (5) CIP

When Thu Dec 21, 2017 5pm - 6pm Eastern Time

Where 6120 or call (b) (5) CIP, Participant Code (b) (5) CIP, JCason's Leader Code (b) (5) CIP (map <[https://maps.google.com/maps?q=6120+or+\(b\) \(5\) CIP,+Participant+Code+\(b\) \(5\) CIP,+JCason%27s+Leader+Code+\(b\) \(5\) CIP&hl=en](https://maps.google.com/maps?q=6120+or+(b) (5) CIP,+Participant+Code+(b) (5) CIP,+JCason%27s+Leader+Code+(b) (5) CIP&hl=en)>)

Video call [https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac) <[https://plus.google.com/hangouts/\\_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfclurdg](https://plus.google.com/hangouts/_/doi.gov/catherine-gulac?hceid=Y2F0aGVyaW5lX2d1bGFjQGlvcy5kb2kuZ292.6sm3ngqbpi454m3m3anfclurdg)>

Calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov)

Who • [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) - organizer, optional

- [todd\\_willens@ios.doi.gov](mailto:todd_willens@ios.doi.gov)
- [jack.haugrud@sol.doi.gov](mailto:jack.haugrud@sol.doi.gov)
- [james\\_cason@ios.doi.gov](mailto:james_cason@ios.doi.gov)
- [scott\\_cameron@ios.doi.gov](mailto:scott_cameron@ios.doi.gov)
- [jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)
- [joe.darnell@sol.doi.gov](mailto:joe.darnell@sol.doi.gov)
- [katharine\\_macgregor@ios.doi.gov](mailto:katharine_macgregor@ios.doi.gov)
- [greg\\_j\\_sheehan@fws.gov](mailto:greg_j_sheehan@fws.gov)
- [andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)
- (b) (6) David Bernhardt
- [zachariah\\_gambill@fws.gov](mailto:zachariah_gambill@fws.gov)
- [stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)
- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [michael\\_gale@ios.doi.gov](mailto:michael_gale@ios.doi.gov)
- [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)
- [peg.romanik@sol.doi.gov](mailto:peg.romanik@sol.doi.gov)
- [richard.goeken@sol.doi.gov](mailto:richard.goeken@sol.doi.gov)
- [mike.gieryic@sol.doi.gov](mailto:mike.gieryic@sol.doi.gov)
- [tasha\\_l\\_robbins@ios.doi.gov](mailto:tasha_l_robbins@ios.doi.gov) - optional
- [maureen\\_foster@ios.doi.gov](mailto:maureen_foster@ios.doi.gov) - optional
- [marigrace.caminiti@sol.doi.gov](mailto:marigrace.caminiti@sol.doi.gov) - optional
- [thomas\\_irwin@fws.gov](mailto:thomas_irwin@fws.gov) - optional
- [roslyn\\_sellers@fws.gov](mailto:roslyn_sellers@fws.gov) - optional

Your attendance is optional.

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.gov) because you are subscribed for invitation replies on calendar [catherine\\_gulac@ios.doi.gov](mailto:catherine_gulac@ios.doi.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](#)

<<https://support.google.com/calendar/answer/37135#forwarding>> .

**From:** [Google Calendar](#) on behalf of [Greg Siekaniec](#)  
**To:** [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov)  
**Subject:** Accepted: Teleconference: Proposed Senate Legislation to Open Coas... @ Tue Nov 28, 2017 10am - 10:30am (Regional Director"s Office)  
**Attachments:** [invite.ics](#)

---

Greg Siekaniec has accepted this invitation.

Teleconference: Proposed Senate Legislation to Open Coastal Plain (b) (5) CIP Passcode: (b) (5) CIP  
Teleconference: Proposed Senate Legislation to Open Coastal Plain (b) (5) CIP Passcode: (b) (5) CIP

When Tue Nov 28, 2017 10am – 10:30am Alaska Time

Video call [https://plus.google.com/hangouts/\\_/doi.gov/gregory-siekani](https://plus.google.com/hangouts/_/doi.gov/gregory-siekani) <[https://plus.google.com/hangouts/\\_/doi.gov/gregory-siekani?hceid=ZG9pLmdvd180NWdtZmdyajVncnN0YnU0Yjdya2NrNWc4a0Bncm91cC5jYWxlbnRhci5nb29nbGUuY29t.33fbg83nrkddgvo5893c9roq9r](https://plus.google.com/hangouts/_/doi.gov/gregory-siekani?hceid=ZG9pLmdvd180NWdtZmdyajVncnN0YnU0Yjdya2NrNWc4a0Bncm91cC5jYWxlbnRhci5nb29nbGUuY29t.33fbg83nrkddgvo5893c9roq9r)>

Calendar Regional Director's Office

Who • [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov) - creator

- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [bcribley@blm.gov](mailto:bcribley@blm.gov)
- [kmourits@blm.gov](mailto:kmourits@blm.gov)
- [joe.darnell@sol.doi.gov](mailto:joe.darnell@sol.doi.gov)
- [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov) because you are subscribed for invitation replies on calendar Regional Director's Office.

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

<<https://support.google.com/calendar/answer/37135#forwarding>> .

**To:** Wendy M. Loya, PhD[wendy\_loya@fws.gov]  
**From:** Miller, Mark  
**Sent:** 2018-01-09T17:27:32-05:00  
**Importance:** Normal  
**Subject:** Fwd: Arctic District Office staff meeting notes Jan. 9, 2018  
**Received:** 2018-01-09T17:27:42-05:00  
ArDO Meeting Notes 2018 1 9.docx

Pertinent tidbits...

~~~~~  
**Mark E. Miller, PhD | Deputy Director**  
**North Slope Science Initiative** | <http://www.NorthSlopeScience.org>  
Email: [memiller@blm.gov](mailto:memiller@blm.gov) | Office: 907-271-3212 | Mobile: 907-231-9427  
c/o Bureau of Land Management | Alaska State Office | State Director's Office  
222 West 7th Avenue, #13 | Anchorage, AK 99513  
~~~~~

"We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely."

E. O. Wilson, *Consilience*

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

**From:** Fritz, Stacey <[sfritz@blm.gov](mailto:sfritz@blm.gov)>  
**Date:** Tue, Jan 9, 2018 at 1:18 PM  
**Subject:** Arctic District Office staff meeting notes Jan. 9, 2018  
**To:** BLM\_AK\_FDO\_ALL <[blm\\_ak\\_fdo\\_all@blm.gov](mailto:blm_ak_fdo_all@blm.gov)>, "Rice, Stephanie" <[srice@blm.gov](mailto:srice@blm.gov)>, "Miriam (Nicole) Hayes" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, "Miller, Mark" <[memiller@blm.gov](mailto:memiller@blm.gov)>

Notes are attached and on the shared drive here:

V:\010 Arctic District Office\AKF010 Field Office\ArFO Meeting Notes\Arctic District Office Meeting Notes 2018

Best,

--

Stacey Fritz  
Anthropologist/Subsistence Specialist  
BLM Arctic District Office  
222 University Ave.  
Fairbanks, AK, 99709  
fax: (907) 474-2282  
work phone: (907) 474-2309  
cell phone: (907) 687-6549

0000012008

**To:** Paul Leonard[paul\_leonard@fws.gov]  
**From:** Wendy Loya  
**Sent:** 2018-02-15T17:27:33-05:00  
**Importance:** Normal  
**Subject:** RE: GTN-P Sites in Arctic Refuge  
**Received:** 2018-02-15T17:27:41-05:00

I don't expect the FLIR study to land in the Refuge, they are operating out of Deadhorse and not Kaktovik I believe. I would call Hollis Twitchell (Assistant Refuge Manager), or ask Frank to since he could explain it better 907-456-0512.

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** Leonard, Paul [mailto:paul\_leonard@fws.gov]  
**Sent:** Thursday, February 15, 2018 1:12 PM  
**To:** Wendy Loya  
**Subject:** Fwd: GTN-P Sites in Arctic Refuge

Is the polar bear team based out of Kaktovik or is there someone else that immediately comes to mind that we might be able to call on for this?

Cheers,  
Paul

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

**From:** Urban, Frank <furban@usgs.gov>  
**Date:** Thu, Feb 15, 2018 at 11:45 AM  
**Subject:** Re: GTN-P Sites in Arctic Refuge  
**To:** "Leonard, Paul" <paul\_leonard@fws.gov>

Paul,

I went into the data stream from the Niguanak station and unfortunately there was a malfunction with the snow depth sensor and thus, we do not have data for this winter from that site. If we can identify a person in Kaktovik that I could work with over the phone to inspect my equipment there we might be able to fix the telemetry link to the other stations and collect that data.

Thanks and let me know if you need anything else at this point-

Frank

On Wed, Feb 14, 2018 at 9:01 AM, Frank Urban <[furban@usgs.gov](mailto:furban@usgs.gov)> wrote:  
Paul,

I do have data for the Niguanak site and Red Sheep Creek south of the Brooks but my telemetry connection in Kaktovik at the school has not been functioning and I need a person on site to look at it. Because of that, I do not have this winter data from the Marsh Creek or Camden Bay sites.

I can pull the Niguanak data together for you- let me know

Frank

On Feb 13, 2018, at 5:51 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hi Frank,

I should have asked you this the last time we were on the phone but I'm curious if there is information from this winter that would be available from any of the 3 sites? I believe the data you shared extend through 2016?

Thanks so much.

Cheers,  
Paul

--

Paul Leonard, PhD  
Science Coordinator  
Arctic LCC  
101 12th Ave. Room 216  
Fairbanks, AK 99701  
(907) 456-0445

--

Frank Urban  
U.S. Geological Survey  
MS 980, Box 25046  
Denver, CO 80225  
303-236-4790

--

Paul Leonard, PhD  
Science Coordinator

Arctic LCC

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**To:** karen\_a\_murphy@fws.gov[karen\_a\_murphy@fws.gov];  
wendy\_loya@fws.gov[wendy\_loya@fws.gov]  
**From:** Sarena Selbo  
**Sent:** 2018-05-21T17:45:38-04:00  
**Importance:** Normal  
**Subject:** Fwd: Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @ Wed May 23, 2018 10am - 11am (EDT) (seth\_mott@fws.gov)  
**Received:** 2018-05-21T17:45:45-04:00

Begin forwarded message:

**From:** Sarena Selbo <sarena\_selbo@fws.gov>  
**Date:** May 21, 2018 at 1:42:58 PM AKDT  
**To:** "Mott, Seth" <seth\_mott@fws.gov>  
**Cc:** [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)  
**Subject:** Re: Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @ Wed May 23, 2018 10am - 11am (EDT) (seth\_mott@fws.gov)

We are happy with the metric:

Number of projects developed and funded to support needs of FWS and BLM for exploration

We are coordinating with Refuges on the target number for the metric and will have more for you later Seth.

On May 18, 2018, at 7:45 AM, Mott, Seth <seth\_mott@fws.gov> wrote:

See below about upcoming discussion on new performance measure...if you have any thoughts/input, please send it to me before Tuesday.

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

**From:** **Kim Howze** <[kim\\_howze@fws.gov](mailto:kim_howze@fws.gov)>  
**Date:** Fri, May 18, 2018 at 10:16 AM  
**Subject:** Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @ Wed May 23, 2018 10am - 11am (EDT) (seth\_mott@fws.gov)  
**To:** [seth\\_mott@fws.gov](mailto:seth_mott@fws.gov), "[autemesa\\_palmer@fws.gov](mailto:autemesa_palmer@fws.gov)" <[autemesa\\_scott@fws.gov](mailto:autemesa_scott@fws.gov)>, [cecilia\\_todd@fws.gov](mailto:cecilia_todd@fws.gov),



[chris\\_nolin@fws.gov](mailto:chris_nolin@fws.gov)

[more details »](#)

### **Meeting with Science on FY 2018 Spend Plan Performance Metrics**

Hi Cecilia and Seth,

Chris Nolin and I would like to meet with you to review proposed measures associated with the FY 2018 Spend Plan. The plan was recently approved based on the assumption that there would be accompanying performance measures that support the plan. The Department is interested in increasing the reporting frequency of our performance metrics however; we would like to preempt that request by providing them with our own proposal. This meeting is scheduled to determine a reasonable reporting timeframe for each measure and identify or develop any additional milestone metrics that could provide supporting data if the current measures can't support the Departments' requested timeframes.

We are on a quick deadline to get a plan in place so if this meeting time doesn't work, please propose another time.

Attached below are the measures that were provided as supporting measures or proposed metrics for the FY 2018 Spend Plan. Our discussion will start from this framework.

#### **Science**

##### **- Wolf study**

o Metric would be award and completion of study

##### **- Migration Cooridors**

o Number of partner driven projects funded externally to drive science needs of DOI program

##### **- ANWR**

o Number of projects developed and funded to support needs of FWS and BLM for exploration

Thanks,  
Kim

--

Seth Mott, Deputy Assistant Director  
Science Applications  
703 358 1969  
[seth\\_mott@fws.gov](mailto:seth_mott@fws.gov)  
U.S. FISH & WILDLIFE SERVICE  
MS: SA 3N091  
5275 LEESBURG PIKE  
FALLS CHURCH, VA 22041-3803

0000012013

**To:** Jones, Nichelle (Shelly)[[njones@blm.gov](mailto:njones@blm.gov)]  
**Cc:** Fox, Joanna[[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)]; Loya, Wendy[[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]; Stephanie Brady[[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)]; Kahn, Lynnda[[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)]; Bud Cribley[[bcribley@blm.gov](mailto:bcribley@blm.gov)]  
**From:** Berendzen, Steve  
**Sent:** 2018-05-07T21:15:03-04:00  
**Importance:** Normal  
**Subject:** Re: Weekly Meeting to Discuss Seismic EA  
**Received:** 2018-05-07T21:15:08-04:00

Shelly,

Having this discussion as a follow up to our 2:00 Tuesday Coordination meeting sounds like a good idea to me. We might be able to join you in your office if that works for you. I don't know what other refuge staff we would include at this time, but we might have some of our regional office staff who want to sit in on our discussion and they could stay on the call to join in if desired.

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

On Mon, May 7, 2018 at 4:33 PM, Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)> wrote:

Hello: Do you know if there now a standing weekly meeting on the Coastal Plain Leasing EIS at 2pm on Tuesdays? I see it now on my calendar out into the future. I was thinking perhaps we could tag on to that and discuss the Seismic EA directly afterwards? If that won't work for you tomorrow, I'll try to find a time later in the week.

I have an edited list of the the IDT to run by you and we can review the other questions and follow-up items. I am planning to have Donna and Sarah join us. Donna is trying to get the initial questions together by this Friday so she can get back to the applicant for the additional information needs. Sarah said she would help draft up a project plan and is a good NEPA process person.

I hope to talk to our solicitor, Mike Gleryic, about some of the concerns and questions we identified in the meeting last week, so I might have some info on those to share when we meet.

-Shelly

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

(907) 474-2310 (w)

0000012014

(907) 460 0086 (c)

**To:** Wendy Loya[Wendy\_loya@fws.gov]  
**From:** Guyer, Scott  
**Sent:** 2018-05-14T14:54:21-04:00  
**Importance:** Normal  
**Subject:** Re: Land cover for 1002  
**Received:** 2018-05-14T14:54:31-04:00

Ok, great! As I mentioned she is moving to a new position in Boise in late June so she's been in/out a bit recently I am sure she will get back with you. I will talk with her first chance I get.  
Scott

On Mon, May 14, 2018 at 8:45 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Scott,

I did email Marlo on Friday, asking for help at least through June either from your current position as needed or as detail if she would prefer. If you want to follow up with her about how you see it fitting in, that might be helpful?

If I don't hear back from her today about discussing it, I'll give her a ring tomorrow.

Thanks! More soon,

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:** Guyer, Scott <[sguyer@blm.gov](mailto:sguyer@blm.gov)>  
**Sent:** Monday, May 14, 2018 8:35 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Land cover for 1002

Morning Wendy, Hey just a couple of things and one I forgot to mention on the phone last Friday. A critical part of this process is imagery acquisition and preprocessing. What that entails finding the best (cloud free) satellite images to use in the project. I think Janet looked into this and said it looked like if Landsat was used as the platform then likely it would only be two images. The image processor will take those two images and do what is called an unsupervised classification grouping like pixels (similar signatures) together and even putting those into a likely vegetation class. There are also a significant amount of pixels that don't seem to fit into a group or the class of the group is unknown. These are the pixel groups that the field team will visit to identify what class of vegetation they belong to. So there is a bit of pre-field work involved which really makes it impossible to do the work this summer. The preprocessing should be a winter time activity, with field sites determined in late winter or early spring. Pre-field work meetings, logistical planning, team crew selection etc. in the spring and then the field work conducted during the summer.

I am very willing to work with you on this and will encourage my supervisor here to let me participate. I really think this is as far as time wise not worthy of a detail. I can do this along with my regular duties. If you would like to discuss this more just give me a call.

--

***Scott Guyer***

***Landscape Initiatives Coordinator***

Alaska State Office

907-223-6759 (wk cell)

***"Not the victory but the action, Not the goal but the game,***

***In the deed the Glory!"***

--

***Scott Guyer***

***Landscape Initiatives Coordinator***

Alaska State Office

907-223-6759 (wk cell)

***"Not the victory but the action, Not the goal but the game,***

*In the deed the Glory!"*

**To:** John Trawicki[john\_trawicki@fws.gov]; Steve Berendzen[steve\_berendzen@fws.gov]; Joanna Fox[joanna\_fox@fws.gov]; Stephanie Brady[stephanie\_brady@fws.gov]; Tracy Fischbach[tracy\_fischbach@fws.gov]; Drew Crane[drew\_crane@fws.gov]  
**From:** Wendy Loya  
**Sent:** 2018-03-26T11:09:27-04:00  
**Importance:** Normal  
**Subject:** FW: Question about stipulations and BMPs  
**Received:** 2018-03-26T11:09:38-04:00

Dear FWS colleagues,

I asked BLM for clarification on where and when (leasing EIS, Project level EIS) Stipulations and Best Management Practices (BMPs) are determined. You can read my email inquiry at the bottom and Nicole's response above that. In the 2<sup>nd</sup> paragraph, she indicates that "Additional BMPs may also be applied at the individual authorization levels based on the additional NEPA analysis." This means that if we have a development proposal in the future, and during the analysis of environmental impacts (EIS) for the project it is determined that the project will have impacts based, additional BMPs can be used to mitigate those impacts. That is how any new information we gained through additional studies would be incorporated in the future.

Feel free to call to discuss if you have further questions or these emails don't adequately explain it.

Thanks, have a great week,  
Wendy

Dr. Wendy M. Loya, Coordinator  
Office of Science Applications -Arctic Program  
US Fish and Wildlife Service  
Anchorage, Alaska  
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**From:** Hayes, Miriam (Nicole) [mailto:[mnhayes@blm.gov](mailto:mnhayes@blm.gov)]  
**Sent:** Monday, March 26, 2018 6:52 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Question about stipulations and BMPs

Hi Wendy,

Yes-absolutely, one of the primary purposes of project-level NEPA is to identify specific impacts from a proposed action and potentially incorporate or apply additional mitigation to reduce or eliminate the identified impact.

Starting with the IAP, in the NPR-A the BLM has distinguished between Stipulations (i.e., those mitigation measures that will be tied to the lease) and BMPs (i.e., those mitigation measure that will be tied to the lease, and are also applicable to any/all authorizations for use, but that also have a deviation process). Additional BMPs may also be applied at the individual authorization levels based on the additional NEPA analysis.

For this EIS, BLM expects that seismic and potentially post-lease exploration could be authorized using the EIS, therefore, if we are missing specificity to inform specific stipulations or BMPs they could be written to require additional data gathering to be able to meet the objective as you highlighted below.

Hope this helps.  
Nicole

**Nicole Hayes**

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

On Fri, Mar 23, 2018 at 11:17 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:  
Hi Nicole,

FWS is seeking clarification on Stipulations and BMPs. Ted indicated that Stipulations are in place at the time of leasing, and are therefore put in place by the Leasing EIS. In looking at the NPRA table 2.3 of Stips and BMPs, it also appears that BMPs are put in place in the EIS, although the details of a study, for example, are to be determined during a project level EIS.

Here is an example from page 71 of the IAP where an action is prohibited unless a study can show no potential impact, with the study details TBD:

***E 15 Best Management Practice***

Objective: Prevent or minimize the loss of nesting habitat for cliff nesting raptors.

Requirement/Standard:

- a. Removal of greater than 100 cubic yards of bedrock outcrops, sand, and/or gravel from cliffs shall be prohibited.
- b. Any extraction of sand and/or gravel from an active river or stream channel shall be prohibited unless preceded by a hydrological study that indicates no potential impact by the action to the integrity of the river bluffs.

Our question is, can additional requirements (in some form other than Stipulations) be identified in the Project level EIS (e.g. GMT2) or Alpine EIS?

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:** [Fox, Joanna](#)  
**To:** [Wixon, Donna](#)  
**Cc:** [Steve Berendzen](#); [Wendy Loya](#); [stephanie brady](#); [Bud Cribley](#); [Lynnda Kahn](#)  
**Subject:** Re: Information Request - DD Friday May 11  
**Date:** Friday, May 11, 2018 5:25:57 PM  
**Attachments:** [FWS questions and comments re SAE seismic application.docx](#)

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Hi Donna,

Attached please find a compilation of requests for more information from the seismic applicant. This document includes comments from Arctic Refuge staff, as well as specialists in our regional and headquarters offices. If you have questions or need clarification on anything in the document, please don't hesitate to contact me. There is a lot of overlap in topics, so likely quite a bit of duplication, though I attempted to eliminate that where obvious.

Thanks much,  
Joanna

---

Joanna L. Fox  
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*"Do what you can, with what you have, where you are." -- Theodore Roosevelt*

On Mon, May 7, 2018 at 10:37 AM, Wixon, Donna <[dwixon@blm.gov](mailto:dwixon@blm.gov)> wrote:

Hello All,

Thank-you for participating in the Seismic Application Meeting last Friday. Attached is a copy of the sign in sheet. There were a few people that missed the sign in sheet so I added some names. If you notice I missed anyone please let me know.

As we pointed out Friday, the application is missing information that is needed to evaluate the proposed action. Please send me any questions you have about the proposed action so that I may compile them and ask the company to supply answers.

I would like all of the questions by the end of the day Friday May 11.

Thank-you,  
Donna

Donna L Wixon  
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## Marsh Creek 3D 2018 Winter Seismic Survey Plan of Operations (PoOP): Comments and Questions

### General comments:

1. Overall, narrative sections of the proposed action, i.e., Plan of Operations (PoOP) (SAExploration 2018) has a lack of applicable details for proper agency review, effects analysis, and comment.
2. Neither the BLM, which provides the lead for oil and gas permitting on federal lands, nor the Refuge Manager are listed as points of contact in the application. Many other discrepancies are annotated below.
3. The PoOP does not address the standing and relevant regulatory criteria under 50 CFR §§ 37 - Geological and Geophysical Exploration of the Coastal Plain, Arctic National Wildlife Refuge, Alaska: specifically,
  - a. application requirements (50 CFR § 37.21), notwithstanding voiding of the closure date, i.e., 31 May 1986 [50 CFR § 37.21(b) and (c)] through the enactment of the 2018 Tax Bill;
  - b. environmental protections (50 CFR § 37.31); or,
  - c. special areas (50 CFR § 37.32).
  - d. Relevant Arctic Refuge statutory purposes under ANILCA, including 2018 updates, or Refuge Administration Act/Improvement Act are not addressed.
4. A few examples of mitigation guidance for geological and geophysical exploration include the following: Clough et al. (1987) and BMPs and ROPs identified by the NPRA Final Integrated Activity Plan EIS (BLM 2012) among many other more recent NEPA documents for the North Slope oil and gas industry (USACE 2012; BLM 2014, 2015, 2016; SAExploration 2016a, 2016b; BOEM 2017).
5. There is no compliance with NEPA for the PoOP, especially in view of potential significant direct, indirect, and cumulative effects for the past, present, and foreseeable future. As a result, there is no documentation of environmental effects, whether positive or adverse, nor recommendations for mitigation including project design features, otherwise termed best management practices (BMPs) or required operating procedures (ROPs) (e.g., Clough et al. 1987; BLM 2012, 2013, 2014, 2015, 2016; SAExploration 2016a, 2016b; BOEM 2017; among others).
6. Air quality, although presumed to be a minimal effect for seismic exploration, is not addressed from a cumulative perspective with past, present and reasonably foreseeable activities for the larger airshed of the North Slope.
7. Refuge purposes include ensured continuation of subsistence opportunities. Please include a section on subsistence that includes timing and routes so that it is possible to evaluate the potential effects on subsistence users and resources.

### Section 4.0

1. 1st paragraph, last sentence – for ‘what we have learned over the past several years’, are there reports documenting what has been learned, reports either by SAE, oil companies or BLM or DNR regulators? If not reports, are there trip reports or memos? If so, can FWS staff see them? What is the power to detect change and statistical inference of these studies?

2. What is your experience conducting specific activities with specific equipment at the most environmentally risky conditions (slopes and snow, soil, and vegetation conditions) that you propose to encounter? Have there been studies assessing the impacts and risks when operating under these conditions with specific types of equipment? If so, what is the statistical inference of these studies and please provide the reports and data.

#### Section 5.0 Cultural Interface

1. How are the concerns of Arctic Village and Venetie addressed?

#### Section 6.0 Oversight Panel

1. Who does the biologist hired by SAE report to? BLM? FWS? Will this be an independent contractor hired by BLM and FWS and paid for by SAE? On a project like this we would generally have FWS monitors assigned to the project to answer questions in real-time on the ground.

#### Section 9.0 Mobilization and Access (and follow-up monitoring and restoration related to these activities)

1. "The crews will mobilize to existing gravel pads which will allow access to the tundra and provide a resupply area for the crews" (Page 7: SAExploration 2018). These gravel pads are not identified in the PoOP – whether inside the 1002 area boundary or adjacent to it. Where are the gravel pads and travel corridors? Locations of ingress and egress?
2. SAE states "SAE will attempt to coordinate with companies to use any existing or planned trails." There are no existing trails in the permit area and what other companies do they refer to? Coordination should be happening with BLM and/or FWS in regards to avoiding sensitive areas. Also, an analysis of the effects of maintaining a stationary camp in a non-sensitive area vs. dragging it along every few days is needed. Do you have information to address these needs? How large of a gap between work areas can there be before your operations are impacted?
3. Note that the suggested ingress/egress route from Deadhorse to the 1002 area across the coastal plain, and inferring a similar, continuing route across the 1002 area, traverses critical denning habitat for the polar bear (FWS 2008, FWS 2009, FWS 2016a).
4. The stated operating period of the PoOP is 1 Dec through 31 May\* annually, or upon adequate snowfall or other environmental conditions to support winter travel, until the tundra travel is closed by onset of spring weather conditions. However, this does not address:
  - a. assumed annual winter seismic exploration activity periods and phases as industry standard and convention used for reference in this review; note this would be problematic for activities during late (beyond 1 May) seasonal demobilization as breeding and calving are occurring on the coastal plain
  - b. staging of equipment outside of that annual performance window, nor ingress and egress timing to the 1002 area, such that mobilization begins at Deadhorse on 1 Dec and return by 31 May, or when conditions are such that tundra travel

- c. if (how and where) seismic surveys will be conducted when adequate snowfall or other environmental conditions are not conducive to tundra travel – including how will this be assessed/monitored to preclude soil compaction and/or vegetation damages when adequate snow is not present and the spatial inference of these surveys be (Also see questions under 10.0 Surveys and Ice Check Section);
  - d. how changing weather and climate may affect seismic survey operations with an increasingly shortened winter period
- 5. What dates and when and where will they be operating? (not enough to say “1 December to May 31”) The PoOP identifies the entire coastal plain 1002 area (1,665,280 ac) as the project area for the 2018-2019 and 2019-2020 winter seasons. There is no defined project area or project definition from which specific effects may be evaluated or mitigation recommendations offered by the Arctic Refuge Manager. A map identifying when, where, what, etc., per 50 CFR § 37.21(d)(4) is needed. The PoOP title implies the Marsh Creek environs but there is no mention of this tributary beyond the title. Please provide routes and what type of activity, storage, etc will occur at locations within the permit area. For example, if you plan to be working near any of the Refuge springs or other special areas, we will need to develop relevant stipulations and will need more information on what type of activity is proposed.
- 6. It is surprising that older technologies known to cause substantial impacts have not been updated. For example, 2 D7G CAT Dozers are listed as equipment for the sled camp (Page 17, Appendix B: SAExploration 2018). This tracked equipment, or equivalent is documented as causing the most damage to tundra, requiring decades to recover, if at all (Truett and Kertell 1992; Emers and Jorgenson 1997). Are there advances in technology that we are not aware? If so, what is the documented effectiveness and did associated surveys have a statistically valid design, what was the change detection capability, and what is the statistical inference for various vegetation and soil types, snow and soil conditions, slopes, etc.
- 7. Will SAE be allowed to mobilize, resupply, use airstrip, etc. at Point Thompson? This could reduce vehicle traffic across tundra on state land to Dalton Highway.
- 8. Are there ice or snow roads between Dalton Highway and Point Thompson that you could travel on to reduce tundra damage? If not, could you travel some of the distance on sea ice?
- 9. To assess vulnerability, inform route planning and avoid unnecessary damage, what soil and vegetation surveys will be conducted along the proposed routes and what will the spatial resolution of these surveys be? Note – that supplying this information for routes where extremely heavy equipment (e.g., camp moves, resupplies) will be moved is particularly important.
- 10. What are the operating plans and environmental protection protocols for tundra travel? How will these protocols differ for different snow and soil conditions and for travel on steep slopes, areas with sensitive soil/vegetation types, and near special areas (e.g. groundwater-fed springs, overflow ice, ice-hummocks, and waterbodies that may support fish)?
- 11. For each type of activity/equipment (e.g. camp moves, resupplies, snow machine access, refueling, transport of fuel and hazardous chemicals), describe what the environmental regulations/limits will be for the following:
  - a. What is the maximum slope that operations for each type of activity/equipment would occur on? This information will allow us analyze the potential for impacts of different activities (e.g. fuel storage, transport of hazardous materials, camp moves, seismic) would be occurring on steep slopes.

- b. What are the soil and vegetation type requirements for each type of operation/equipment? This information will allow for a more meaningful analysis of impacts to tundra.
  - c. What are the criteria for snow and soil characteristics that will be required for each type of activity/equipment? Will these criteria vary with slope and type of soil and vegetation?
12. What are the proposed routes for camp moves or other travel that may cause substantial damage to the tundra? Please provide a map and GIS file. Please provide the following information broken down in a table and linkable to GIS format:
- a. Proposed route distance
  - b. Timing
  - c. Type of activity (e.g. resupply, camp move)
  - d. Type of equipment (e.g. vehicle type, sled, skis)
  - e. Weight of vehicle/equipment empty
  - f. Weight of equipment/vehicle fully loaded
  - g. Pounds per square inch (PSI) pressure of vehicle, sled, or skis empty
  - h. Pounds per square inch (PSI) pressure of vehicle, sled, or skis fully loaded (note – this especially important for sleds or vehicles that haul large volumes of water or fuel, kitchen and bath units, etc.)
  - i. Total footprint of all vehicle or other equipment in contact with ground
  - j. Type of tire (tracked versus wheeled)
  - k. Track material (e.g. steel versus rubber)
  - l. Are tracks cleated or uncleated? Number of times a particular route would be exposed to a particular PSI from a particular vehicle, sled, or skis.
  - m. Maximum slope that this equipment would travel on and at what weights (minimum and maximum)
  - n. Snow depth requirements for this type of vehicle/equipment
  - o. Freezing depth requirements for this type of vehicle/equipment
  - p. Link to soil and vegetation type requirements for use of this vehicle/equipment and environmental protections protocol
  - q. Are hazardous material transported on this type of equipment?
  - r. Is more than 500 gallons of fuel be transported on this type of vehicle/equipment?
13. How and where will snow be gathered and moved for construction of snow trails and ramps?
14. What are the soil and snow characteristics that would elicit the need for creating snow trails?
15. How far can snow be transported for trail making?
16. What are the topographic and other criteria that elicit the need for creating snow ramps?
17. More detail about snow packed trails: can you preplan a route well enough to prepack trails for all of the camp moves and long-haul fuel moves? If not, can you prepack main routes through the work area and minimize movement of heavier vehicles off of those prepacked routes? For example, move camps and fuel on prepacked trails with only short spurs off of it to reach camp sites.
18. When would be prepacking be done? Will it be done before snow is deep enough for the tundra travel season to open? What vehicles would be used during this time?

19. What equipment will be used for moving and placing snow, what is the operating plan, and what is the environmental protection protocol?
20. How will the permittee ensure that significant volumes of snow/water (snow water equivalent) are not translocated (e.g. by snow-fence captures or removal and application of snow) to other drainages?
21. Snow compaction can impede natural surface flows during breakup. What are the locations of proposed snow trails? What operating procedures will be followed to reduce hydrologic impacts of snow trails?
22. How many resupply trips will be needed along routes?
23. How many vehicles and what type will be involved in resupply trips?
24. Will resupply vehicles use existing trails?
25. What is the typical size (area covered) of a 3D seismic grid that would be completed by 2 crews in one winter season? Or what size would a grid in the 1002 area in 2018-19 probably be? Would it probably be roughly a square? For the expected size and shape of the grid area, how many miles of camp move trails would there be within the work area (not including miles of access to reach the edge of the work area)?

#### 10.0 Survey and Ice Check

1. This appears to be from a sea-ice based project proposal or from an area where there are many lakes. It should be reworked to account for activities in a mostly tundra environment where snow is known to blow around making snow drifts with intermittent bare ground or thin snow.
2. The applicant states that "In low snow years, snow surveys will be conducted to substantiate depths and will be recorded for equipment movement efforts" and sentence ends - (Page 8 under 10.0 Survey and Ice check: SAExploration 2018). This does not address the adequacy of snow nor preclusion of survey impacts. A description of activities is needed for "low" snow years, including a description of what they feel "adequate" snow cover would be. How might weather and changing climate affect seismic survey operations with an increasingly shortened winter period. Is the applicant prepared to deal with early melts? If so, how?
3. What provisions are there for the possibility that snow conditions deteriorate before the train returns?
4. Where would snow surveys be done in order to decide when exploration could begin?
5. What is the proposed survey design and statistically determined spatial and temporal inference for collecting data (e.g. weather, snow, slope and soil) necessary to assess whether or not activities can occur?
6. How will SAE gather data on frost and snow conditions and provide them to the authorized officer, so the he/she can make an informed decision?
7. There can be large expanses with no snow cover in the 1002 Area. What are the contingency plans in the event extensive areas with low snow cover and/or unfrozen ground are encountered? Do you plan to conduct aerial snow surveys at least a year ahead of time or conduct snow modeling efforts to get a general sense of where these large expanses are to help develop your contingency plans for these areas?

## 11.0 River Crossings (and lake)

1. Ice-road, ice ridge and ramp construction across deep ravines need to consider spring snowmelt or storm events to preclude damming that could cause impounded water as a heat sink, flooding, erosion and mass wasting, water turbidity, suspended solids, stream rechanneling, and/or bank stabilization.
2. SAE refers here, and throughout the document, to coordinating with the State of Alaska. Note that coordination with the BLM and FWS will also be necessary.
3. Need a clear understanding of how they plan to move across areas where the banks are deep and steep.
4. Constructing ice bridges in the absence of water or water-limited conditions is problematic – isolated, shallow lakes; minimal or absent winter flows in streams and rivers; minimum pool size and freezing-depth to protect overwinter fish habitat (in contrast with the NPRA where water is abundant and average snow depths much deeper). The PoOP provides no specific information on accessing water, water requirements, or ice bridge locations, given the overall limitation of water in the 1002 area,
5. What are the environmental protection protocols for building ice roads, traveling on river and lake ice, and preventing additional freeze-down of ice, impacts to spring fish migration, and altering spring flooding events?
6. Are there special provisions for avoiding spring-fed areas, aufeis, deep pools that do not freeze to the bottom, ice-hummocks, and potential fish-bearing lakes?
7. Cross-slope travel is indicated and implied in PoOP Appendix C (SAExploration 2018) not only from Deadhorse to the 1002 area, but within the 1002 area with steeply sloped topography and cut by deep ravines. Stream crossing points are not identified nor consolidated for seismic surveys or sled camps – this links back to the need for more specifically defining the project area and providing a detailed map.
8. What are the locations and dates of proposed lake and river crossings?
9. What are the proposed locations for ice bridges? Where will water for construction of ice bridges come from?
10. If travel near, springs, aufeis, or potential fish-bearing habitat is proposed, what baseline monitoring of ice depth, winter water volume, invertebrates, fish, and water chemistry will be conducted prior to, during and after the proposed activity? What will the statistical inference and change detection capabilities of these surveys be?
11. For areas that ice bridges are being proposed, what studies on channel morphometry and spring discharge/flooding extent will be conducted prior to, during and after ice breaches are created and breached? What will the statistical inference and change detection capabilities of these surveys be?

## 13.0 Recording Operations (and sound)

1. Noise or acoustic disturbance considerations, including ground penetrating vibrations, are not addressed from an environmental effects perspective.
2. Frequency, intensity, and duration of vibroseis?
3. Proximity to non-fish bearing and fish bearing waterbodies?



4. Potential impacts to fish considered?
5. 2nd paragraph, last sentence - Documents from the 2D seismic in 1002 in 1980s mentioned that the seismic receiver lines could be diverted a certain distance if needed to avoid areas of inadequate snow cover or sensitive vegetation. With the 3D seismic, is there a distance that a line could be altered if needed for some reason without compromising the data?

#### 14.0 Camp Facilities

1. How many camp areas will be used?
2. How many days on average will a camp be on a site?
3. Please give a breakdown of the ground pressure and footprint of the entire camp, vehicles, and equipment that will be there.
4. What are the proposed locations and timing of use for camps?
5. How close will camps be to a waterbody or wetland?
6. How close does the campsite need to be to the area you are working in?
7. The sentence in section 13, 2nd paragraph, should be added to this section. Like vibrators, camps, fuel haulers and small personnel carriers will also travel only on snow covered tundra or grounded sea ice, I assume.
8. How much water will be required for camp each day?
9. More detailed description of grey water discharge is needed (also part of section 18).
10. What is the maximum gradient the tracked tractors can pull the camp sleds? This is needed to determine where they would need to use the D7 Cats for moving the camp and an analysis of under what circumstances the camps cause damage. Is it when they remain in a place too long or is it the dragging them over the tundra or both?
11. What provisions are there for the after-shift outdoors activities of camp employees?

#### 15.0 Water Withdrawal (from lakes)

1. Any water withdrawal or additional freeze-down in a very water-limited environment is problematic – isolated, shallow lakes; minimal or absent winter flows in streams and rivers; minimum pool size and freezing-depth to protect overwinter fish habitat (in contrast with the NPRA where water is abundant and average snow depths much deeper). The PoOP provides no specific information on accessing water, fulfilling water requirements, or project locations, given the overall limitation of water in the 1002 area, and the effective working radius for travel from a water access point. Refer to 50 CFR § 37.31(c) Aquatic environment stipulations regarding water withdrawals, fisheries and fish habitat. The only exception to PoOP water discussion is sled camp usage (Page 10 under Water Withdrawal: SAExploration 2018) for potable water.
2. Is this proposal requesting withdrawal of lake water (or ice) that would be greater than 5,000 gallons? The Refuge has federal reserved water rights for all waterbodies and must ensure that adequate water quality and quantity meet Refuge purposes for diversity and maintenance of fish and wildlife populations.
2. What are the proposed locations of water withdraw from lakes? What is the recharge capability of these lakes based on drainage area and snow survey data? What baseline monitoring of invertebrates, water level, water chemistry, flow, and fish will be conducted prior to, during and

after any water withdraw greater than 5,000 gallons? What will the statistical inference and change detection capabilities of these surveys be?

#### 16.0 Temporary Snow Air Strips

1. What are the proposed locations of air strips? Conditions may change, but scouting sites at least a year in advance should be done to ensure feasibility. Grounded ice is often buckled and may be difficult and possibly unsafe to land on. There are large expanses of land greater than 30 miles with no lakes. There are also large expanses of land that are completely blown free of snow.
2. Are you proposing to use water and or ice chips to prepare landing strips on lakes?
3. When lakes cannot be used as airstrips, what is the site prep for tundra air strips? If there is minimal snow cover and the area is tussocks, will this be possible? Will tussocks and other sensitive areas be avoided? What equipment is involved and what environmental protection protocols will be in place?
4. What is the operating plan for working in areas that fixed-wing aircraft cannot access? Is there a need for helicopter access?
5. How many crew swaps will be carried out? i.e. how many times will an airstrip be used per week?
6. The original proposal notes that an example of an airstrip is listed in appendix E. Please provide appendix E.
7. What type of aircraft will be used? Wheeled or skis?

#### 17.0 Fuel Supply and Storage

1. How much fuel will be used per day?
2. What are the proposed locations for refueling and fuel storage and how much will be stored at each location and in what type of containers? What is the maximum amount of fuel that will be stored at a particular location? How many of these locations will there be at a given time and during the entire course of the project?
2. How far will fuel storage and fueling activity be from the active floodplain of any waterbody? How far away can fuel reasonably be stored from particular areas of concern?
3. Since there will be no refueling within a certain distance of any waterbody, what is the protocol for aerial fuel delivery, should it be needed. Will fuel be delivered in drums or will a tanker be used?
4. Please provide the Spill Prevention Countermeasure Control plan for fueling and fuel storage operations as appendix.
5. Please see questions in section 9.0 regarding what type of vehicle/equipment and environmental protection criteria will be required for transport of fuel. With regard to fuel transportation, we are particularly interested in the volume of fuel that will be transported in a particular vehicle under what environmental conditions (e.g., slope, snow and soil freezing depths, soil type).

#### 18.0 Waste Management

1. What are the volumes and proposed locations of discharge of gray water? How many gray water discharge locations will there be?
2. It is unclear how graywater discharge on the tundra meets standards for SAExploration environmental management (Page 4ff) or industry standards to minimize attracting human-

subsidized predators and other camp following wildlife (Pages 9-10 under 14.0 Camp Facilities and Page 11 under Waste Management: SAExploration 2018). Soapy water and floating bits of pasta in commercial quantities will leave a signature on the tundra well into the growing season regardless of APDES permit conditions. More importantly, this appears to contravene SAExploration's statement that "Food and food waste will be kept inside vehicles while out in the field" (Page 12 under 19.0 Wildlife: SAExploration 2018).

3. What type of hazardous wastes and in what quantities will be generated, stored and/or transported? What type of containers will they be stored in? Please provide a table.
4. Please see questions in section 9.0 regarding what type of vehicle/equipment and environmental protection criteria will be required for transport of hazardous materials. With regard to transport of hazardous material, we are particularly interested in the type and volume of hazardous materials that will be transported in a particular type of vehicle/equipment type and under what environmental conditions (e.g., slope, snow and soil freezing depths, soil type).
5. How will sanitary waste be disposed of (e.g., incinerated and then backhauled)?

## 19.0 Wildlife

1. The suggested ingress/egress route from Deadhorse to the 1002 area across the coastal plain, and inferring a similar, continuing route across the 1002 area, traverses critical denning habitat for the polar bear.
2. What is the intensity and wavelength of sound of equipment?
3. What types of animals will be impacted by sound and/or compaction of snow and disturbance? We don't just mean charismatic megafauna.
4. The only PoOP wildlife considerations are framed in human-wildlife encounters, inferring conflict situations principally with polar bears. Denning polar bears are one of the main concerns in this area during the winter. This section needs to be greatly expanded to discuss this issue. There are no environmental protections or wildlife mitigation measures to avoid, minimize, rectify, reduce, or compensate direct, indirect or cumulative effects of exploration similar to activities in the NPRA or adjoining areas (BLM 2012, 2013); Alpine Satellite Development Plan (BLM 2014, 2015); Greater Mooses Tooth Unit EA (e.g., Pp. 38-49 Appendix B Stipulations and Best Management Practices: BLM 2016); and, offshore areas (SAExploration 2016a, 2016b; BOEM 2017).
4. What are the potential impacts to freshwater and marine species from sound generated by vibrators?
5. What measures will be taken to reduce impacts of vibroseis sound on fish?
6. See additional questions regarding Wildlife Interaction Plan
7. What are the potential impacts of snow compaction on subnivian species?
8. Note – that the proposed dates of operation extend into the caribou calving season
9. There is no acknowledgement of snow-free tundra that may be attractive forage sites for caribou remaining through the winter period; higher than average denning of polar bears in the northeast section of the 1002 area ranging up to 25 miles or more from the coastline in the deep river ravines; pre-survey reconnaissance to identify and avoid bear dens; seasonal demobilization phase (25 Apr-31 May) when caribou may be arriving on calving grounds and calving, nor arrival of migratory birds, including raptors that may be establishing territories and nest sites; nor any other wildlife avoidance mitigation offered as a BMP, in a manner similar to ...(BLM 2012, 2013), etc. (BLM 2014, 2015, 2016; SAExploration 2016a, 2016b; BOEM 2017).

## 20.0 Historic and Cultural Resources

1. Is SEA implying that buffers for historic and cultural resources be determined from a point on the map that indicates the general vicinity of these resources or will the buffer be drawn from the actual area that resources cover?
2. There is no compliance with NHPA, nor any communication SHPO. See 50 CFR § 37.31(d) Cultural resources.

## Recommended Section: Wilderness

1. Could the objectives of the project be met with a buffer for designated Wilderness?

## Recommended Section: Post-Survey Impact Evaluation

1. What are the proposed survey designs and statistical inference short and long-term follow-up monitoring efforts to assess impacts and recovery of soil, tundra, and water resources following seismic exploration and how will this information be reported?
2. What are SAE's plans for supporting Post-Survey Impact Evaluations? SAE should be responsible for evaluating impacts to the tundra following the first winter's activities, so that adjustments can be made if necessary. Also, if warranted, SAE should be accountable for monitoring recovery of tundra/vegetation, soils, and water in the post survey years to follow. The evaluation of impacts should be done by third-party persons with defined qualifications, who report directly to BLM/FWS, and are paid for by SAE. Of course SAE would have full access to monitoring reports, but would not be a filter between resource monitor and us. This is also consistent with SAE's assertion in its plan of operations that it is continually assessing the impacts of its operations and making improvements in equipment and methods.

## Appendix B:

1. See questions related to section 9.0 for more information needs that should be added to equipment tables for each vehicle.
2. We would like more information on the equipment. Add some columns to table, to provide the following information for each line of table:
  - a. Vehicle weight
  - b. Pounds per square inch (psi)
  - c. Is unit tracked or wheeled?
  - d. If tracked, are tracks steel or rubber?
  - e. Are tracks cleated or cleatless?
3. Instead of putting 150-man sleigh camp in one line in table, itemize vehicles, sleds, and skis. For example, how many sled units are there, what is the footprint, and what is weight and the ground pressure (pounds per square inch) when empty and loaded to maximum? See additional questions related to section 9.0 for more information needs for vehicles and other equipment.

4. Itemize vehicles for transporting fuel. Are there just the 4 long haul fuelers or are there other smaller fuel vehicles? Do the fuel tanks on the list get hauled between camps full or empty? For each unit that is used to transport fuel over tundra, what is the footprint of the vehicle, and what is weight and the ground pressure (pounds per square inch) when empty and loaded to maximum??
5. CAT dozers and CAT loaders have high weight and psi. What are they used for? What precautions are taken to limit disturbance to tundra from them, travelling between camps as well as in camp? What is their weight empty and at maximum load, what is their footprint, what is their ground pressure empty and at maximum load?

#### Appendix D:

1. Add more photos, including camp sleighs, long haul fueler, Case/Steiger tractor, CAT dozer and CAT loader.

#### Appendix F: Wildlife Interaction Plan

1. This plan is not adequate. This proposal lays out a window of December 1 to May 31. Going this late impinges on the beginning of the calving and nesting season of wildlife using this area. As such, this proposal should have a significant section that lays out the Affected Environment and Environmental Consequences. Basically, all the details needed for the NEPA analysis should be included. They are not. These concerns include polar bears, particularly denning bears; caribou, particularly during calving; shorebird nesting which may be starting during this window; and water usage, especially considering that this is a relatively dry landscape compared to the NPRA and fish and other aquatic organisms are constrained to critical habitats that may already be near environmental thresholds.
2. In the SAE plan of operations, "heavy equipment" and "seismic activity" with regard to wildlife interactions needs to be further defined. For example, if there is a one mile avoidance area for a polar bear den, does that apply to laying of recording devices by hand or smaller vehicle, or just to the large vibroseis activity? For example, does a one mile avoidance area mean that no personnel, equipment, gear or anything else will come within one mile of a polar bear den? Does this apply to seal birthing dens and grizzly bear dens as well?
3. The Wildlife Interaction Plan and field operating procedure state that denning sites will be identified prior to operations, and then seems to leave setback and other stipulations as "to be determined" or "protocols of FWS will be followed." There will be cases when decisions must be made while activities are in progress, but SAE should provide protocols and information that indicate their capabilities to make informed decisions ahead of time rather than during activities.
4. What is the survey design, operating procedure and resulting accuracy in identifying denning sites? Are these surveys done prior to any other activity or occupation of an area including caching equipment or fuel or conducting reconnaissance surveys to assess ice conditions, locations for camp moves, etc?
5. There is no compliance with ESA/MMPA, with focal emphasis on denning polar bears. Although not listed at the time of generating 50 CFR §§ 37, denning bears were considered [50 CFR §

37.31(b)(11); 50 CFR § 37.32(c)], now updated via MMPA incidental take regulations (ITR) (FWS 2013, FWS 2016b, FWS 2016c, FWS 2016d).

6. The data provided for polar bear numbers in the southern Beaufort Sea is out of date (Page 23 Polar Bears: SAExploration 2018).

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**To:** Mary Colligan[mary\_colligan@fws.gov]; Mitch Ellis[mitch\_ellis@fws.gov]; Wendy Loya[wendy\_loya@fws.gov]  
**From:** Boario, Sara  
**Sent:** 2018-05-31T16:52:26-04:00  
**Importance:** Normal  
**Subject:** Fwd: Hard Stop on Comments RE: 1002 siesmic  
**Received:** 2018-05-31T16:52:34-04:00

fyi

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

**From:** Boario, Sara <sara\_boario@fws.gov>  
**Date:** Thu, May 31, 2018 at 11:57 AM  
**Subject:** Re: Hard Stop on Comments RE: 1002 siesmic  
**To:** Lesli Ellis-Wouters <lellis@blm.gov>  
**Cc:** Stephen Wackowski <stephen\_wackowski@ios.doi.gov>, Katharine Macgregor <kate\_macgregor@ios.doi.gov>, "Siekaniiec, Greg" <greg\_siekaniiec@fws.gov>, "Karen E. Mouritsen" <kmourits@blm.gov>, "Swift, Heather" <heather\_swift@ios.doi.gov>, "Rigas, Laura" <laura\_rigas@ios.doi.gov>, faith\_vandervoort@ios.doi.gov, Ted Murphy <t75murph@blm.gov>, Jeff Krauss <jkrauss@blm.gov>, Amber Cargile <acargile@blm.gov>, "Winston, Beverly" <bwinston@blm.gov>, "McIntosh, Stacie J" <s05mcint@blm.gov>

Hi Steve -

We have issued no statement out of the Alaska Regional office. The FWS statement referenced below was issued out of our HQ. My understanding is that it was a DOI approved statement.

sb

On Thu, May 31, 2018 at 11:53 AM, Lesli Ellis-Wouters <lellis@blm.gov> wrote:

This response was sent to the following outlets:

Washington Examiner Josh Siegal  
Anchorage Daily News Alex DeMarban  
Alaska Public Media Elizabeth Harball

*We have received an application from SA Exploration and partner Arctic Slope Regional Corporation to conduct seismic geophysical exploration within the Alaska Coastal Plain. The Alaska State Office is currently reviewing the application.*

*The 2017 Tax Cuts & Jobs Act directs the Secretary of the Interior to establish a competitive program for leasing, development, production, and transportation of oil and gas on Alaska's Coastal Plain. Currently, the BLM is conducting public scoping in preparation of an Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program.*

Alex and Elizabeth sent follow up requests for a copy of the application where I replied with the FWS statement:

0000012036



*There are no public documents to share at this time. However, such responses are part of a normal, iterative process whereby we work collaboratively with both the permit applicant and our sister federal agencies to identify shortcomings or gaps in information in the application so that we can fully and appropriately evaluate it.*

***Lesli J. Ellis-Wouters***

Communications Director  
Alaska State Office  
Bureau of Land Management  
907-271-4418 | cell - 907-331-8763

On Thu, May 31, 2018 at 11:44 AM Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Sara, Lesli-

Hard stop on any comments to press on the WaPo story until a response is coordinated with departmental comms (CC'd). Please send the group the statements you have put out so far and to whom.

We are working on detailing the myraid of inaccuracies in the story and want to have a unified response.

-Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
4230 University Drive, Suite 300  
Anchorage, AK 99508  
907-271-5485

--

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



--

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:** [John Trawick](#); [Drew Crane](#)  
**Subject:** FW: Information Request - DD Friday May 11  
**Date:** Monday, May 14, 2018 11:09:41 AM  
**Attachments:** [FWS questions and comments re SAE seismic application.docx](#)

---

FYI....

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:** Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Sent:** Friday, May 11, 2018 3:25 PM  
**To:** Wixon, Donna <[dwixon@blm.gov](mailto:dwixon@blm.gov)>  
**Cc:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; stephanie\_brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>; Bud Cribley <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)>; Lynnda Kahn <[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)>  
**Subject:** Re: Information Request - DD Friday May 11

Hi Donna,

Attached please find a compilation of requests for more information from the seismic applicant. This document includes comments from Arctic Refuge staff, as well as specialists in our regional and headquarters offices. If you have questions or need clarification on anything in the document, please don't hesitate to contact me. There is a lot of overlap in topics, so likely quite a bit of duplication, though I attempted to eliminate that where obvious.

Thanks much,  
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/arcticonationalwildliferefuge](http://www.facebook.com/arcticonationalwildliferefuge)

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

On Mon, May 7, 2018 at 10:37 AM, Wixon, Donna <[dwixon@blm.gov](mailto:dwixon@blm.gov)> wrote:

| Hello All,

0000012039

Thank-you for participating in the Seismic Application Meeting last Friday. Attached is a copy of the sign in sheet. There were a few people that missed the sign in sheet so I added some names. If you notice I missed anyone please let me know.

As we pointed out Friday, the application is missing information that is needed to evaluate the proposed action. Please send me any questions you have about the proposed action so that I may compile them and ask the company to supply answers.

I would like all of the questions by the end of the day Friday May 11.

Thank-you,  
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](mailto:dwixon@blm.gov)

**From:** [Wendy Loya](#)  
**To:** [Karen Clark](#); [Greg Siekaniec](#); [Bud Cribley](#)  
**Subject:** FW: SAE Plan of Operations Questions for Coastal Plain Seismic  
**Date:** Tuesday, May 22, 2018 3:41:23 PM  
**Attachments:** [SAE seismic questions 5.22.2018.pdf](#)

---

Karen, Greg and Bud,

FYI: attached letter from BLM to SAE for additional information needed to process the seismic application for the Arctic Refuge Coastal Plain under NEPA.

The cover letter states:

Once BLM receives the answers to the attached questions we will start the 90 day review clock as required by 43 CFR 3152.2 a. and notify you if the 90 days cannot be met and refine our estimation of time needed to process your application.

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:** Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Sent:** Tuesday, May 22, 2018 1:16 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>  
**Subject:** Fwd: SAE Plan of Operations Questions

Hi Wendy,

We just received this copy of the letter BLM sent to the seismic applicant requesting additional information. It answers some of the questions we discussed this morning (including when the 90-day clock starts). Please distribute as you see fit.

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](http://www.facebook.com/arcticnationalwildliferefuge)

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

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

From: Wixon, Donna <[dwixon@blm.gov](mailto:dwixon@blm.gov)>

Date: Tue, May 22, 2018 at 1:00 PM

Subject: Fwd: SAE Plan of Operations Questions

To: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

Cc: Sarah LaMarr <[slamarr@blm.gov](mailto:slamarr@blm.gov)>, Shelly Jacobson <[njones@blm.gov](mailto:njones@blm.gov)>

Hi Steve and Joanna,

Attached is a copy of the questions we sent to SAExploration.

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](mailto:dwixon@blm.gov)

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

From: **Wixon, Donna** <[dwixon@blm.gov](mailto:dwixon@blm.gov)>

Date: Tue, May 22, 2018 at 11:35 AM

Subject: SAE Plan of Operations Questions

To: Suzan Simonds <[ssimonds@saexploration.com](mailto:ssimonds@saexploration.com)>

Cc: Shelly Jacobson <[njones@blm.gov](mailto:njones@blm.gov)>

Good Morning Sue,

Attached please find a letter and questions about the seismic permit that SAExploration has requested from the BLM for the 1002 area.

Please let me know if you have any questions about our questions as you work through them.

Thanks,  
Donna

Donna L Wixon  
Natural Resource Specialist  
BLM Arctic District Office

0000012042

222 University Ave  
Fairbanks, Alaska 99709  
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907-474-2386 Fax  
[dwixon@blm.gov](mailto:dwixon@blm.gov)



BUREAU OF LAND MANAGEMENT  
Arctic District Office  
222 University Avenue  
Fairbanks, Alaska 99709-3816  
<http://www.blm.gov/ak>



May 22, 2018

In reply refer to:  
FF097424  
3152.00 (AKR000)

Ms. Suzan Simonds  
Permit and Regulatory Manager  
SAExploration Inc.  
8240 Sandlewood Place, Suite 102  
Anchorage, Alaska 99507

Subject: Oil and Gas Geophysical Exploration Application

Dear Ms. Simonds,

Title II of the Tax Cuts and Jobs Act of 2017 directed the Secretary of Interior to establish and administer a competitive oil and gas program within the Coastal Plain of Alaska. Because the Bureau of Land Management (BLM) manages the National Petroleum Reserve in Alaska (NPR-A) pursuant to the Naval Petroleum Reserves Production Act (1976), the BLM has been identified as the lead agency for permitting oil and gas related activities in the Arctic National Wildlife Refuge Coastal Plain area, including seismic exploration activities. Within the BLM the Arctic District Office has been tasked to process seismic applications for the area.

On April 19, 2018 the Alaska BLM State Office received an application from SAExploration to conduct seismic activity in the 1002 area of the Alaska National Wildlife Refuge. On May 3, 2018 the BLM Arctic District received a nonconfidential version of the plan of operations. BLM and USFWS met on May 4<sup>th</sup> to discuss the proposed action.

The regulations that cover the proposed action are 43 CFR 3152, Exploration in Alaska. Part 3152.1 provides information on what is required to be submitted as part of the application. SAExploration has provided information for items a thru f. Part f requires a plan for conducting the exploration activities. While SAExploration has submitted a plan of operations, the plan does not provide enough information for the BLM to adequately evaluate impacts of the proposed action on the environment as required by the National Environmental Policy Act (NEPA).



Please see attached list of questions entitled: "Marsh Creek 3D 2018 Winter Seismic Survey Plan of Operations (POO) BLM/USFWS Comments and Questions." We would ask that you respond to the questions and comments as soon as possible so that we may begin the NEPA process on the proposed action. Once BLM receives the answers to the attached questions we will start the 90 day review clock as required by 43 CFR 3152.2 a. and notify you if the 90 days cannot be met and refine our estimation of time needed to process your application

If you have any questions please contact Donna Wixon of my staff at 907-474-2301.

Sincerely,  
Nichelle Jones, Manager



Arctic District Office

Enclosures (1):

Marsh Creek 3D 2018 Winter Seismic Survey Plan of Operations (POO) BLM/USFWS Comments and Questions

## **Marsh Creek 3D 2018 Winter Seismic Survey Plan of Operations (POO): BLM/USFWS Comments and Questions**

### **General comments:**

1. What kind of lighting will be needed - tall light posts for equipment and storage areas; aircraft operations, localized lighting for worker camps, seismic line work, etc?
2. What is the normal and peak operating decibel levels of the camp generator and hours of operation each day or 24/7?
3. What are the total miles of seismic trails planned?
4. Will SAExploration Inc. be submitting a more detailed map of the actual proposed area of survey? This would greatly help in addressing impacts.
5. Does SAExploration, Inc. plan to avoid native allotments entirely?

### **Section 4.0 Environmental Management**

1. Please provide a write up of how you are doing things differently based on lessons learned from the past.
2. What are the steepest slopes that you would be conducting activity on and how do you propose to protect soil and vegetation?

### **Section 5.0 Cultural Interface**

1. This section mentions coordination with Kaktovik, what about Arctic Village and Venetie?
2. Applicant needs to submit a Subsistence Plan that meets the requirements of the 2013 Record of Decision (ROD) Best Management Practice (BMP) H-1 and also include:
  - Precise meeting dates and locations.
  - The names of and contact information for subsistence representatives and the biologist hired by SAE to work with the panel.
  - Reporting on mitigation measures and conflict avoidance agreements, if any, developed through such consultation.
  - Documentation of notification to allotment owners and camps and cabins users.
  - Procedures necessary to facilitate access by subsistence users to conduct their activities.
3. Applicant needs to follow the requirements of BMP H-2.

### **Section 6.0 Oversight Panel <sup>1</sup>**

1. When will the oversight Panel be formed?
2. How many people will be on the panel?
3. What types of people will be on the panel?
4. Will its members be residents of Kaktovik only?
5. Will the panel only report to Kaktovik?

---

<sup>1</sup> BLM would like to set up a meeting in June or July to discuss.

6. Does “cultural sites” refer to archaeological, historic, and/or traditional land use sites? If so, will this subsistence observer also be an archaeologist with access to the Alaska Heritage Resources Survey (AHRS) database (maintained by the Alaska State Historic Preservation Office) and the Traditional Land Use Inventory (TLUI) site within the study area (maintained by the North Slope Borough Department of Planning and Community Services)?

## **Section 7.2 Training Process**

1. Please provide an Orientation Program Plan following NPR-A BMP I-1 for BLM’s approval.

## **Section 8.0 Permit Requirements**

1. In table please include ESA Consultation under BLM
2. In table, under ADFG and Fish Habitat Permits, please add stream/river crossings.
3. In table under other approvals what lease holders are in the area?
4. What public outreach has taken place prior to application submittal, or as of today’s date?<sup>2</sup>

## **Section 9.0 Mobilization and Access**

1. “The crews will mobilize to existing gravel pads which will allow access to the tundra and provide a resupply area for the crews” (Page 7: SAExploration 2018). These gravel pads are not identified in the POO – whether inside the 1002 area boundary or adjacent to it. Where are the gravel pads and travel corridors? Locations of ingress and egress? Please submit a map showing ingress and egress with land status layer.
2. SAE states "SAE will attempt to coordinate with companies to use any existing or planned trails." There are no existing trails in the permit area, what other companies are you referring to?
3. How close does the campsite need to be to the area you are working in?
4. What criteria will be used to determine if snow depth and coverage is adequate to minimize damage to the tundra vegetation?
5. Does SAE have a contingency plan should snow depth and cover not be adequate to minimize soil compaction and vegetation damage?
6. Please provide routes and what type of activity, storage, etc. that will occur at locations within the permit area.
7. Please provide a description of the current camp move practices and how they would help to protect the tundra.
8. Are there ice or snow roads between Dalton Highway and Point Thompson that you could travel on to reduce tundra damage? If not, could you travel some of the distance on sea ice?

---

<sup>2</sup> BLM would like to set up a meeting in June/July to discuss.

9. What are the operating plans and environmental protection protocols for tundra travel? How will these protocols differ for different snow and soil conditions and for travel on steep slopes, areas with sensitive soil/vegetation types, and near special areas (e.g. groundwater-fed springs, overflow ice, ice-hummocks, and waterbodies that may support fish)?
10. For each type of activity/equipment (e.g. camp moves, resupplies, snow machine access, refueling, transport of fuel and hazardous chemicals), describe what the environmental regulations/limits will be for the following:
  - a. What is the maximum slope that operations for each type of activity/equipment would occur on? This information will allow us analyze the potential for impacts of different activities (e.g. fuel storage, transport of hazardous materials, camp moves, seismic) would be occurring on steep slopes.
  - b. What are the criteria for snow and soil characteristics that will be required for each type of activity/equipment? Will these criteria vary with slope and type of soil and vegetation?
11. Please provide the following information broken down in a table and linkable to GIS format along with a map:
  - a. Proposed route distance
  - b. Timing
  - c. Type of activity (e.g. resupply, camp move)
  - d. Type of equipment (e.g. vehicle type, sled, skis)
  - e. Weight of vehicle/equipment empty
  - f. Weight of equipment/vehicle fully loaded
  - g. Pounds per square inch (PSI) pressure of vehicle, sled, or skis empty
  - h. Pounds per square inch (PSI) pressure of vehicle, sled, or skis fully loaded (note – this especially important for sleds or vehicles that haul large volumes of water or fuel, kitchen and bath units, etc.)
  - i. Total footprint of all vehicle or other equipment in contact with ground
  - j. Type of tire (tracked versus wheeled)
  - k. Track material (e.g. steel versus rubber)
  - l. Are tracks cleated or uncleated? Number of times a particular route would be exposed to a particular PSI from a particular vehicle, sled, or skis.
  - m. Maximum slope that this equipment would travel on and at what weights (minimum and maximum)
  - n. Snow depth requirements for this type of vehicle/equipment
  - o. Freezing depth requirements for this type of vehicle/equipment
  - p. Are hazardous material transported on this type of equipment?
  - q. Is more than 500 gallons of fuel be transported on this type of vehicle/equipment?
12. How and where will snow be gathered and moved for construction of snow trails and ramps?
13. How far can snow be transported for trail making?
14. What are the topographic and other criteria that elicit the need for creating snow ramps?
15. Verify that you would be prepacking snow trails.

16. What vehicles would be used for prepacking?
17. What equipment would be used for moving and placing snow?
18. How many resupply trips will be needed along routes?
19. How many vehicles and what type will be involved in resupply trips?
20. Will resupply vehicles use existing trails?
21. For the expected size and shape of the grid area, how many miles of camp move trails would there be within the work area (not including miles of access to reach the edge of the project area)?

## **Section 10.0 Survey and Ice Check**

1. What does low snow years mean exactly? If it means they will ensure that enough snow cover is present for equipment movements, then what are the minimum snow depths? Will tundra freeze-down be quantified prior to and/or during operations?
2. What provisions are there for the possibility that snow conditions deteriorate before the train returns?
3. Where would snow surveys be done in order to decide when exploration could begin?<sup>3</sup>
4. How will SAE gather data on frost and snow conditions?
5. There can be large expanses with no snow cover in the 1002 Area. What are the contingency plans in the event extensive areas with low snow cover and/or unfrozen ground are encountered?
6. What Lakes, rivers or sea ice would be traveled across?

## **Section 11.0 River Crossings (and lake)**

1. This element of the operations cannot just be permitted with ADF&G. In addition to ADF&G FHPs, the BLM & FWS must evaluate this activity as part of the NEPA process. The BLM already has some Best Management Practices (in the 2012 NPR-A IAP) related to stream/river crossings that can be used for guidance, but site specific evaluations will be necessary to determine if these BMPs or a modified version of the BMPs are most appropriate for this landscape. (Comment not question).
2. Describe how deep/steep banks would be crossed.
3. The POO provides no specific information on accessing water, water requirements, or ice bridge locations. Please provide.
4. Please provide a map that shows stream and lake crossings with a table that identifies the latitude and longitude of the corresponding crossings.
5. What are the proposed locations for ice bridges? Where will water for construction of ice bridges come from?
6. Does SAE propose any baseline monitoring of ice depth, winter water volume, invertebrates, fish, and water chemistry
7. If a crossing needs to be reinforced/built up for supporting equipment, where will liquid water come from? The BLM currently does not allow liquid water to be removed from rivers during the winter. If liquid water may need to be removed from lakes to build any

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<sup>3</sup> BLM would like to set up a meeting in June/July to discuss

“ice bridges”, then the volumes would need to be accounted for in the lake water use request to the BLM/FWS for evaluation in the EA and in ADF&G FHPs and ADNR Temporary Water Use Permits.

8. Would the removal of snow for this purpose only occur on areas of grounded ice (from lakes and/or rivers)?
9. Would the removal of ice aggregate from grounded ice areas on a river be requested?

### **Section 12.0 Willow Protocol**

1. What criteria will be used to identify location and size of sensitive willow areas?
2. Will other vegetation types sensitive to seismic activities be considered when designing and constructing snow roads and trails? (Sensitive vegetation types include moist tussock tundra and low shrub vegetation categories.)
3. Please provide a weed plan following requirements of the NPR-A BMP M-2 for BLM Approval.

### **Section 13.0 Recording Operations (and sound)**

1. What is the frequency, intensity, and duration of vibroseis?
2. What is the proximity to non-fish bearing and fish bearing waterbodies?
3. Provide the location of waterbodies and table of information of the proximity to non-fish bearing and fish bearing waterbodies.
4. With the 3D seismic, is there a distance that a line could be altered if needed for some reason without compromising the data?
5. Please verify that vibrators would not be operating on lakes or rivers.
6. If vibroseis shots will be made over liquid water under ice, the permittee needs to review the following document and indicate how they would implement or otherwise address recommendations made to reduce potential impacts to fish.  
Morris, W., and J. Winters. 2005. Fish Behavioral and Physical Responses to Vibroseis Noise, Prudhoe Bay, Alaska 2003. Technical Report No. 05-02. Alaska Department of Natural Resources, Office of Habitat and Permitting.
7. What is SOS Methodology?

### **Section 14.0 Camp Facilities**

1. How many camp areas will be used?
2. How many days on average will a camp be on a site?
3. How much water will be required for camp each day?
4. What are the water requirements each year for this project?
5. Provide a more detailed description of grey water discharge
6. What is the maximum gradient the tracked tractors can pull the camp sleds?
7. Section 14 states: “If existing airstrips are within the project area those area may be utilized to allow personnel, food and fuel to be delivered to the work area”. Are there existing airstrips in the project area?
8. What is the predetermined route?

9. What is the Vsat communication system?

### **Section 15.0 Water Withdrawal (from lakes)**

1. Would snow for drinking water only be removed from grounded ice areas?
2. Water volume (liquid water and ice aggregate) requests must be made for each specific lake that might be used, for evaluation in the EA.
3. What information does SAE plan to collect or compile for planned use lakes.<sup>4</sup>

### **Section 16.0 Temporary Snow Air Strips**

1. Are you proposing to use water and or ice chips to prepare landing strips on lakes?
2. When lakes cannot be used as airstrips, what is the site prep for tundra air strips?
3. What equipment is involved in creating and maintaining airstrips?
4. We need to know which specific lakes might be used for an airstrip, the size of the airstrip, the procedure for building and maintaining an airstrip, and the intended placement and orientation.
5. If airstrips are built on lakes, additional data collection may be required to provide data regarding the extent of additional freeze-down under the airstrip, as compared to the remainder of the lake.
6. What is the operating plan for working in areas that fixed-wing aircraft cannot access? Is there a need for helicopter access?
7. How many crew swaps will be carried out? i.e. how many times will an airstrip be used per week?
8. What type of aircraft will be used? Wheeled or skis?
9. Section 16 states: "SAE will create a flat area on predetermined grounded, frozen lakes, or tundra to serve as landing strip to receive the aircraft for crew changes." This is in the Temporary Snow Airstrips section. Will tundra airstrips be built of snow or will ice be needed to make the airstrip?

### **Section 17.0 Fuel Supply and Storage**

1. How much fuel will be used per day?
2. How much fuel will be used for each year of the project?
3. What are the proposed locations for refueling and fuel storage?
4. What is the maximum amount of fuel that will be stored at a particular location? How many of these locations will there be at a given time and during the entire course of the project?
5. The POO states that the refueling distance from waterbodies would be 100 feet. The BLM NPR-A BMP requires 500 ft distance and we will consider this requirement for this project. We allow a deviation from the 500 ft. in the NPR-A because of the high density/close proximity of so many lakes that makes it impractical in many areas.

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<sup>4</sup> BLM would like to set up a meeting in June/July to discuss.

6. Provide a copy of the SPCC plan(s) for this project with site-specific information included. Until it is complete provide:  
The size, type, and number of fuel storage tanks or other containers.  
What type of equipment/supplies will be available on site to respond to a spill?  
Describe any training requirements for employees handling fuel.
7. Since there will be no refueling within a certain distance of any waterbody, what is the protocol for aerial fuel delivery, should it be needed. Will fuel be delivered in drums or will a tanker be used?

## **Section 18.0 Waste Management**

1. What are the volumes and proposed locations of discharge of gray water? How many gray water discharge locations will there be?
2. Provide a copy of your APDES permit, and any requirements it may have for treatment before discharge.
3. Provide a hazardous waste plan following the requirements of the NPR-A BMP A-3.
4. Provide a Comprehensive Waste Management Plan following the requirements of the NPR-A BMP A-2.
5. What types of wastes are anticipated to be generated by seismic operations?

## **Section 19.0 Wildlife**

1. What is the intensity and wavelength of sound of equipment?

## **20.0 Historic and Cultural Resources**

1. Is SAE implying that buffers for historic and cultural resources be determined from a point on the map that indicates the general vicinity of these resources or will the buffer be drawn from the actual area that resources cover?
2. In response to the “if required,” in addition to background research of documented (“known”) cultural (historic, prehistoric, and TLUI) sites, SAE Exploration should conduct archaeological field surveys of all proposed travel routes and survey locations prior to the proposed seismic survey.<sup>5</sup>
3. The 500 foot minimum avoidance boundary around all cultural sites is adequate for seismic exploration. However, does SAExploration plan to consider the boundaries of all sites within the proposed seismic testing areas?
4. Most of the sites in both the AHRS and TLUI are referenced geospatially by a 1-dimensional point that is typically somewhere near the center of a 2-dimensional area. Sometimes cultural remains within a site can be distributed over hundreds of meters, thus extending beyond a roughly 150 meter (500 foot) buffer. SAExploration should not only survey for undocumented sites within the proposed seismic study areas, but also consider sites documented in the AHRS and TLUI databases and that are within the proposed seismic study areas. These sites should be included in the 2018 cultural field survey,

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<sup>5</sup> BLM would like to set up a meeting in June/July to discuss.



where archaeologists should at minimum map the boundaries (i.e. the extent of cultural remains within a site) of sites within the seismic study areas that are spatially referenced by a point. Site buffers should then extend 500 feet from the site boundary.

#### **Appendix D:**

1. Request more photos, including camp sleighs, long haul fueler, Case/Steiger tractor, CAT dozer and CAT loader.

#### **Appendix F: Wildlife Interaction Plan**

1. In the SAE plan of operations, “heavy equipment” and “seismic activity” with regard to wildlife interactions needs to be further defined. For example, if there is a one mile avoidance area for a polar bear den, does that apply to laying of recording devices by hand or smaller vehicle, or just to the large vibroseis activity? For example, does a one mile avoidance area mean that no personnel, equipment, gear or anything else will come within one mile of a polar bear den? Does this apply to seal birthing dens and grizzly bear dens as well?
2. “A polar bear den detection survey shall be conducted prior to activities occurring in polar bear denning habitat during the maternal denning period (November to mid-April).” How will this survey be conducted?
3. Will all suitable denning habitat within the entire 1002 area be surveyed?
4. What is the survey design, operating procedure and resulting accuracy in identifying denning sites? Are these surveys done prior to any other activity or occupation of an area including caching equipment or fuel or conducting reconnaissance surveys to assess ice conditions, locations for camp moves, etc?<sup>6</sup>
5. The data provided for polar bear numbers in the southern Beaufort Sea is out of date (Page 23 Polar Bears: SAExploration 2018).
  - a. Current estimate of polar bears in the Southern Beaufort Sea population is estimated to be 900 and declining (see Bromaghian 2010)
  - b. Global population is estimated to be 22,000 – 31,000 with an average of 26,000 (see FWS 5-year review 2017)
6. “Aircraft will avoid flying over ideal Polar Bear habitat including but not limited to sea ice and barrier islands.” Please define what is considered to be “ideal” polar bear habitat.
7. “Vessels and aircraft will avoid areas in which subsistence hunting is being conducted.” Are vessels being used for this project? If so please describe.
8. “The Project Manager and wilderness guides have overall responsibility.” What are “wilderness guides” (also called wildlife guide in some places in the document)? Please describe training and responsibilities. This is not a position that was described in the polar bear section of this plan.
9. If the bear takes refuge near or in a vehicle and does not appear likely to move, crew HSE will be notified depending on the location of operation. No action will be taken unless

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<sup>6</sup> BLM would like to set up a meeting in June/July to discuss.

authorized by the AKFG or their designated agents.” Assuming that AKFG is the Alaska Department of Fish and Game (ADFG), please correct in all locations in document.

10. Field Operating Procedure Polar Bear Protocol

- a. In numbers 1 and 7 of this protocol include the distance that must be maintained from known densities.

**To:** Selbo, Sarena[sarena\_selbo@fws.gov]  
**Cc:** Murphy, Karen[karen\_a\_murphy@fws.gov]  
**From:** Wendy Loya  
**Sent:** 2018-05-18T19:05:57-04:00  
**Importance:** Normal  
**Subject:** Re: Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @ Wed May 23, 2018 10am - 11am (EDT) (seth\_mott@fws.gov)  
**Received:** 2018-05-18T19:06:01-04:00

If I survive....  
;)

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

On May 18, 2018, at 15:01, Selbo, Sarena <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)> wrote:

Monday?

On Fri, May 18, 2018 at 9:04 AM, Murphy, Karen <[karen\\_a\\_murphy@fws.gov](mailto:karen_a_murphy@fws.gov)> wrote:

I don't see a common time on our schedule that will work for all of us today.  
2:30 3:00 is the only space today.

*Karen A Murphy  
Science Applications  
907-786-3501  
[karen\\_a\\_murphy@fws.gov](mailto:karen_a_murphy@fws.gov)*

On Fri, May 18, 2018 at 8:29 AM, Selbo, Sarena <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)> wrote:

Lets discuss. The spend plan is being released and we have \$600,000 in SA funds targeted for Arctic Research.

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

**From:** **Mott, Seth** <[seth\\_mott@fws.gov](mailto:seth_mott@fws.gov)>  
**Date:** Fri, May 18, 2018 at 7:45 AM  
**Subject:** Fwd: Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @ Wed May 23, 2018 10am - 11am (EDT) ([seth\\_mott@fws.gov](mailto:seth_mott@fws.gov))  
**To:** Stephen Torbit <[Stephen\\_Torbit@fws.gov](mailto:Stephen_Torbit@fws.gov)>, Sarena Selbo <[Sarena\\_Selbo@fws.gov](mailto:Sarena_Selbo@fws.gov)>, Casey Stemler <[Casey\\_Stemler@fws.gov](mailto:Casey_Stemler@fws.gov)>

See below about upcoming discussion on new performance measure...if you have any thoughts/input, please send it to me before Tuesday.

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

From: **Kim Howze** <[kim\\_howze@fws.gov](mailto:kim_howze@fws.gov)>

Date: Fri, May 18, 2018 at 10:16 AM

Subject: Invitation: Meeting with Science on FY 2018 Spend Plan Performance Me... @  
Wed May 23, 2018 10am - 11am (EDT) ([seth\\_mott@fws.gov](mailto:seth_mott@fws.gov))

To: [seth\\_mott@fws.gov](mailto:seth_mott@fws.gov), "[autemesa\\_palmer@fws.gov](mailto:autemesa_palmer@fws.gov)" <[autemesa\\_scott@fws.gov](mailto:autemesa_scott@fws.gov)>, [cecilia\\_todd@fws.gov](mailto:cecilia_todd@fws.gov), [chris\\_nolin@fws.gov](mailto:chris_nolin@fws.gov)

[more details »](#)

### **Meeting with Science on FY 2018 Spend Plan Performance Metrics**

Hi Cecilia and Seth,

Chris Nolin and I would like to meet with you to review proposed measures associated with the FY 2018 Spend Plan. The plan was recently approved based on the assumption that there would be accompanying performance measures that support the plan. The Department is interested in increasing the reporting frequency of our performance metrics however; we would like to preempt that request by providing them with our own proposal. This meeting is scheduled to determine a reasonable reporting timeframe for each measure and identify or develop any additional milestone metrics that could provide supporting data if the current measures can't support the Departments' requested timeframes.

We are on a quick deadline to get a plan in place so if this meeting time doesn't work, please propose another time.

Attached below are the measures that were provided as supporting measures or proposed metrics for the FY 2018 Spend Plan. Our discussion will start from this framework.

#### **Science**

##### **- Wolf study**

o Metric would be award and completion of study

##### **- Migration Cooridors**

o Number of partner driven projects funded externally to drive science needs of DOI program

##### **- ANWR**

o Number of projects developed and funded to support needs of FWS and BLM for exploration

Thanks,  
Kim

--

Seth Mott, Deputy Assistant Director  
Science Applications  
703 358 1969

0000012056

[seth\\_mott@fws.gov](mailto:seth_mott@fws.gov)  
U.S. FISH & WILDLIFE SERVICE  
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1011 East Tudor Road  
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1011 East Tudor Road  
Anchorage, Alaska 99503  
907-786-3380

**From:** [Berendzen, Steve](#)  
**To:** [Stephanie Brady](#); [Loya, Wendy](#)  
**Cc:** [Joanna Fox](#)  
**Subject:** Fwd: Project Initiation Letter for Coastal Plain Seismic EA  
**Date:** Friday, May 25, 2018 5:30:15 PM  
**Attachments:** [PIL Seismic EA May 24 2018.docx](#)

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Stephanie,

Did you review the Project Initiation Letter for the EA that I sent you? Joanna had them make a couple minor changes, as I understand. I think they're ready for me to sign and accept it, but I'm curious if you have any suggested changes?

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

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

**From:** **Joanna Fox** <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Date:** Fri, May 25, 2018 at 8:51 AM  
**Subject:** Fwd: Project Initiation Letter for Coastal Plain Seismic EA  
**To:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

Not sure why Shelly didn't include you. Did you already sign this? Do we need the version with her signature before you can sign so we can send out to our staff?

---

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](http://www.facebook.com/arcticnationalwildliferefuge)

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

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

**From:** Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)>  
**Date:** Thu, May 24, 2018 at 3:16 PM  
**Subject:** Project Initiation Letter for Coastal Plain Seismic EA  
**To:** Nolan Heath <[nheath@blm.gov](mailto:nheath@blm.gov)>, Hillis, Catherine <[chillis@blm.gov](mailto:chillis@blm.gov)>, Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

Hey All:

We incorporated a few last minute and minor edits. I am planning to sign the

attached PIL before I scan it and send it out to my staff later today. Please either edit, sign and send or just forward this email, indicating your concurrence, to your assigned staff.

Thanks.

-Shelly

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

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



# United States Department of the Interior

Bureau of Land Management – Arctic District Office  
Fish and Wildlife Service – Arctic National Wildlife Refuge

Refer To: FF097424  
1310 (LLAKR00000)

Date: May 24, 2018

## **Project Initiation Letter**

To: Bureau of Land Management (BLM) and Fish and Wildlife Service (FWS)  
Interdisciplinary Team Members

From: Nichelle Jones (BLM Arctic District Manager) and Steven Berendzen (FWS Arctic  
National Wildlife Refuge Manager)

Subject: Project Initiation Letter for the Marsh Creek 3D Seismic Plan of Operations

## **Purpose and Need**

Title II of the Tax Cuts and Jobs Act of 2017 directed the Secretary of Interior (Secretary) to establish and administer a competitive oil and gas program for the leasing, development, production and transportation of oil and gas in and from the Coastal Plain with two lease sales required over the next ten years. The Tax Cuts and Jobs Act also directed the Secretary to issue any right of ways across the Coastal Plain for exploration, development and/or production and directed the Coastal Plain to be managed in a manner similar to the administration of lease sales under the Naval Petroleum Reserves Production Act (1976). Because the BLM manages the National Petroleum Reserve-Alaska (NPR-A) pursuant to the Naval Petroleum Reserves Production Act (1976), the BLM has been identified as the lead agency for permitting oil and gas related activities in the Arctic National Wildlife Refuge Coastal Plain area, including seismic exploration activities.

## **Proposed Action**

The BLM State Office received the Marsh Creek 3D Plan of Operations from SAExploration (SAE), Inc. for winter seismic surveys in the Coastal Plain on April 19, 2018. SAE is proposing to acquire seismic data across the Arctic National Wildlife Refuge Coastal Plain (2602 sq. miles) using rubber tracked/buggy vibrators and wireless, autonomous recording channels (nodes) during the winter of 2018/2019 and 2019/2020. There could be two crews each winter season with work starting approximately December 1 and ending on May 31, depending on tundra closures.



## **Roles and Responsibilities**

Although the BLM is the lead agency for permitting oil and gas activities on the Coastal Plain, including seismic exploration, FWS staff will be integral in the planning and analysis of the proposed seismic exploration project. The purpose of this Project Initiation Letter is to identify interdisciplinary team (IDT) members and provide direction on how to proceed with the NEPA process for the Marsh Creek 3D Seismic Plan of Operations.

We have chosen to use an Environmental Assessment as the NEPA tool to analyze the impacts of this project. See Table 1 for a list of core interdisciplinary team (IDT) members and their responsibilities.

Table 1. Seismic Exploration Interdisciplinary Team										
Role	BLM	FWS	Issues & Alternatives	Chapter 1 and 2	Chapter 3 (Affected Environment)	Chapter 4 (Environmental Impacts & Cumulative Effects)	BMPs	Public Meetings	Gov Consult	Response to Comments
Oversight and Decisions	Shelly Jones	Steve Berendzen	Briefings			Briefings	Briefings	X	X	Briefings
IDT Leader	Donna Wixon		Facilitate	X	Compile/Edit	Compile/Edit	Briefings	X	X	X
		Joanna Fox	Facilitate	Review	Review/Edit	Review/Edit	Briefings	X	X	X
International Liaison		Charlie Hamilton (Polar Bears) Gilbert Castellanos (Caribou)	X		X	X	X			X
Geology/Petroleum Engineer	Rob Brumbaugh		X		X	X	X			X
		Patrick O'Dell	X		Review	Review	X			X
Soils and Permafrost	Eric Geisler		X			X	X			X
		Josh Rose	X		X	Review	X			X
Vegetation	Tim Vosburgh/ Scott Guyer		X			X	X			X
		Greta Burkhart	X		X	Review	X			X
Hydrology and Wetlands	Richard Kemnitz		X			X	X			X
		Greta Burkhart/Josh Rose	X		X	Review	X			X
Archaeology	Joe Keeney		X			X	X			X
		Ed Declava	X		X	Review	X			X
Acoustical Environment	TBD		X		X	X	X			X
		Roger Kaye	X		Review	Review	X			X
Fisheries	Matt Whitman		X			X	X			X
		Randy Brown	X		X	Review	X			X
Wildlife (Birds)	Debbie Nigro		X			X	X			X
		Chris Latty	X		X	Review	X			X

Role	BLM	FWS	Issues & Alternatives	Chapter 1 and 2	Chapter 3 (Affected Environment)	Chapter 4 (Environmental Impacts & Cumulative Effects)	BMPs	Public Meetings	Gov Consult	Response to Comments
Wildlife (Mammals)	Tim Vosburgh		X			X	X			X
		Steve Arthur	X		X	Review	X			X
T&E Species and Consultation	Debbie Nigro (BA – Birds)		X			X	X			X
		MMPA – Bear Ted Swem (ESA consultation)	X		X	Review	X			X
Socioeconomics and Environmental Justice	Stacey Fritz		X			X	X	X	X	X
		Hollis Twitchell/Erin Carver	X		X	Review	X	X	X	X
Subsistence & 810 Analysis	Stacey Fritz (responsible for 810 analysis)		X			X	X	X	X	X
		Hollis Twitchell	X		X	Review	X	X	X	X
Lands/Realty	Donna Wixon		X			X	X			X
		Susan LaKomski	X		X	Review	X			X
VRM/Transportation	Randy Goodwin	Jennifer Reed	X		X	X	X			X
Wilderness		Roger Kaye	X		X	X	X			X
Wild & Scenic Rivers	Randy Goodwin		X			X	X			X
		Jennifer Reed	X		X	Review	X			X
Other Special Land Designations	Randy Goodwin		X			X	X			X
		Jennifer Reed	X		X	Review	X			X
Hazardous Materials	Melody Debenham					X	X			X
		Angela Matz	X		X	Review	X			X
GIS/Mapping	Cindy Hamfler			X	X			X		
		Sheila Dufford		X	X			X		

## **IDT Team**

All participants identified in this Project Initiation Letter will work together throughout the analysis and documentation process.

The IDT Lead is responsible for communicating with the managers on a regular basis, ensuring the process is meeting timeframes and providing assignments and instructions to IDT members. In addition, the IDT Lead is responsible for finalizing the proposed action, leading and facilitating IDT meetings, writing Chapters 1 and 2, compiling and editing Chapters 3 and 4, finalizing the NEPA document and assuring a complete project record.

All IDT members will be responsible for identifying environmental and/or social issues related to the proposed action, develop best management practices and propose alternatives based on issues.

Fish and Wildlife Service staff will be primarily responsible for writing Chapter 3 (Existing Condition) while BLM staff will be primarily responsible for writing Chapter 4 (Environmental Impacts) with review by FWS specialists (refer to Table 1). Communication is critical and the IDT Lead and managers should be notified as soon as possible of any potential issues or deadlines that can't be met. Any questions should be directed to the IDT Lead, Donna Wixon at [dwixon@blm.gov](mailto:dwixon@blm.gov) or 474-2301.

After the Proposed Action is finalized (approximately early June), there will be weekly IDT update conference calls each Tuesday at 3pm (call in number will be provided). There will also be an in person IDT meeting to identify draft best management practices and alternatives.

The BLM District Manager and the FWS Arctic National Wildlife Refuge Manager will be given briefings at key milestones during the process such as after Issue Statement Development, Alternative Development, and determination of Environmental Impacts (including the 810 analysis and ESA impacts). Key IDT members may need to be available to attend briefings.

In addition, the IDT Lead will update managers weekly on the timeline, process, and any issues that need to be resolved.

## **NEPA**

Under the new Department NEPA direction, complex Environmental Assessments will be required to be less than 50 pages in length (appendices are not included in the total page numbers). All IDT members will need to be cognizant of the page limitations and write their sections accordingly. Specialists should complete Specialist Reports for their resource that will be included as an appendix and provide a summary of their findings for the body of the EA. Even if a resource is found to have no issues associated with the proposed action, a Specialist Report should still be completed to explain why there are no issues associated with that resource.

## **Timeframes**

Under the 43 CFR 3152 (Mineral Exploration in Alaska), the authorized officer is required to review and approve a seismic permit within 90 calendar days of receiving an application unless

compliance with statutory requirements, such as NEPA, would delay the action. Due to the high likelihood of public interest in this project, the need for public outreach and the amount of time necessary for the Endangered Species Act and Marine Mammal Protection Act consultations, it is not feasible to meet the 90 day timeframe. See the proposed project timeline below.

### **Projected Timeline**

- May 11-** Due date for application questions from FWS and BLM to IDT Lead
- May 22** – IDT Lead compiles application questions and sends letter to applicant
- May 23** – Project Initiation Letter sent to IDT
- May 22-June 1** – Draft Affected Environment (FWS and Key BLM IDT members) (Refer to Table 1)
- May 31** – Deadline for applicant response to questions
- May 31-June 6** - Finalize Proposed Action and post to BLM ePlanning website (IDT Lead)
- June - November** –MMPA Incidental Take Regulations development (published in Federal Register in November and final rule in January)
- June 6** – IDT Lead sends Proposed Action to team to draft Issue Statements
- June 12** – Deadline for Issue Statements from IDT to IDT Lead
- June 12** – IDT Lead sends letter to applicant regarding schedule
- June 13-27** – All IDT members draft proposed Best Management Practices and draft Alternatives based on Issues
- June 28** – In person IDT meeting to identify draft Best Management Practices and Alternatives. Additional BMPs may be identified during the environmental impacts analysis.
- June 29** – IDT Lead sends Alternatives including draft Best Management Practices to Managers for review
- July 3** – IDT Lead sends list of projects to include in cumulative effects analysis to IDT for review
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- July 20 – November 9** – Joint MMPA and ESA Formal Consultation for both seismic and Incidental Take Regulations
- July 25** – Manger Briefing on Environmental Impacts
- July 27** – Post draft EA for 30 day comment period.
- August 6-15**– Public Meetings and Government to Government
- August 27**– All Public Comments Received
- August 27-September 14** – IDT Responds to Comments
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- November 12** – Sign FONSI and Decision (BLM District Manager)
- November 16** – Incidental Take Regulations published in Federal Register
- January 2019** – Final Incidental Take Regulations Rule

**Nichelle Jones**  
(BLM Arctic District Manager)

**Steve Berendzen**  
(FWS Arctic National Wildlife Refuge Manager)

**From:** [Brady, Stephanie](#)  
**To:** [Berendzen, Steve](#)  
**Cc:** [Loya, Wendy](#); [Joanna Fox](#)  
**Subject:** Re: Project Initiation Letter for Coastal Plain Seismic EA  
**Date:** Tuesday, May 29, 2018 9:24:50 AM  
**Attachments:** [PIL Seismic EA May 24 2018 sbedits.docx](#)

---

Hi there Steve - I added some language regarding review by FWS of the EA - attached for you to take a look - in track changes. Let me know if you need anything else. Stephanie

[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov) | Branch Chief, Conservation Planning and Policy | U.S. Fish and Wildlife Service | National Wildlife Refuge System | Alaska | 907.306.7448  
<https://sites.google.com/a/fws.gov/alaska-region-office-of-conservation-planning-policy/home> (DOI employees)

On Fri, May 25, 2018 at 3:30 PM, Berendzen, Steve <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)> wrote:  
Stephanie,

Did you review the Project Initiation Letter for the EA that I sent you? Joanna had them make a couple minor changes, as I understand. I think they're ready for me to sign and accept it, but I'm curious if you have any suggested changes?

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

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

**From:** **Joanna Fox** <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Date:** Fri, May 25, 2018 at 8:51 AM  
**Subject:** Fwd: Project Initiation Letter for Coastal Plain Seismic EA  
**To:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

Not sure why Shelly didn't include you. Did you already sign this? Do we need the version with her signature before you can sign so we can send out to our staff?

---

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](http://www.facebook.com/arcticnationalwildliferefuge)

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

----- Forwarded message -----  
**From:** Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)>

Date: Thu, May 24, 2018 at 3:16 PM

Subject: Project Initiation Letter for Coastal Plain Seismic EA

To: Nolan Heath <[nheath@blm.gov](mailto:nheath@blm.gov)>, Hillis, Catherine <[chillis@blm.gov](mailto:chillis@blm.gov)>, Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

Hey All:

We incorporated a few last minute and minor edits. I am planning to sign the attached PIL before I scan it and send it out to my staff later today. Please either edit, sign and send or just forward this email, indicating your concurrence, to your assigned staff.

Thanks.

-Shelly

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

(907) 474-2310 (w)

(907) 460-0086 (c)





# United States Department of the Interior

Bureau of Land Management – Arctic District Office  
Fish and Wildlife Service – Arctic National Wildlife Refuge

Refer To: FF097424  
1310 (LLAKR00000)

Date: May 24, 2018

## **Project Initiation Letter**

To: Bureau of Land Management (BLM) and Fish and Wildlife Service (FWS)  
Interdisciplinary Team Members

From: Nichelle Jones (BLM Arctic District Manager) and Steven Berendzen (FWS Arctic  
National Wildlife Refuge Manager)

Subject: Project Initiation Letter for the Marsh Creek 3D Seismic Plan of Operations

## **Purpose and Need**

Title II of the Tax Cuts and Jobs Act of 2017 directed the Secretary of Interior (Secretary) to establish and administer a competitive oil and gas program for the leasing, development, production and transportation of oil and gas in and from the Coastal Plain with two lease sales required over the next ten years. The Tax Cuts and Jobs Act also directed the Secretary to issue any right of ways across the Coastal Plain for exploration, development and/or production and directed the Coastal Plain to be managed in a manner similar to the administration of lease sales under the Naval Petroleum Reserves Production Act (1976). Because the BLM manages the National Petroleum Reserve-Alaska (NPR-A) pursuant to the Naval Petroleum Reserves Production Act (1976), the BLM has been identified as the lead agency for permitting oil and gas related activities in the Arctic National Wildlife Refuge Coastal Plain area, including seismic exploration activities.

## **Proposed Action**

The BLM State Office received the Marsh Creek 3D Plan of Operations from SAExploration (SAE), Inc. for winter seismic surveys in the Coastal Plain on April 19, 2018. SAE is proposing to acquire seismic data across the Arctic National Wildlife Refuge Coastal Plain (2602 sq. miles) using rubber tracked/buggy vibrators and wireless, autonomous recording channels (nodes) during the winter of 2018/2019 and 2019/2020. There could be two crews each winter season with work starting approximately December 1 and ending on May 31, depending on tundra closures.

## **Roles and Responsibilities**

Although the BLM is the lead agency for permitting oil and gas activities on the Coastal Plain, including seismic exploration, FWS staff will be integral in the planning and analysis of the proposed seismic exploration project. The purpose of this Project Initiation Letter is to identify interdisciplinary team (IDT) members and provide direction on how to proceed with the NEPA process for the Marsh Creek 3D Seismic Plan of Operations.

We have chosen to use an Environmental Assessment as the NEPA tool to analyze the impacts of this project. See Table 1 for a list of core interdisciplinary team (IDT) members and their responsibilities.

Table 1. Seismic Exploration Interdisciplinary Team										
Role	BLM	FWS	Issues & Alternatives	Chapter 1 and 2	Chapter 3 (Affected Environment)	Chapter 4 (Environmental Impacts & Cumulative Effects)	BMPs	Public Meetings	Gov Consult	Response to Comments
Oversight and Decisions	Shelly Jones	Steve Berendzen	Briefings			Briefings	Briefings	X	X	Briefings
IDT Leader	Donna Wixon		Facilitate	X	Compile/Edit	Compile/Edit	Briefings	X	X	X
		Joanna Fox	Facilitate	Review	Review/Edit	Review/Edit	Briefings	X	X	X
International Liaison		Charlie Hamilton (Polar Bears) Gilbert Castellanos (Caribou)	X		X	X	X			X
Geology/ Petroleum Engineer	Rob Brumbaugh		X		X	X	X			X
		Patrick O'Dell	X		Review	Review	X			X
Soils and Permafrost	Eric Geisler		X			X	X			X
		Josh Rose	X		X	Review	X			X
Vegetation	Tim Vosburgh/ Scott Guyer		X			X	X			X
		Greta Burkhart	X		X	Review	X			X
Hydrology and Wetlands	Richard Kemnitz		X			X	X			X
		Greta Burkhart/Josh Rose	X		X	Review	X			X
Archaeology	Joe Keeney		X			X	X			X
		Ed Declava	X		X	Review	X			X
Acoustical Environment	TBD		X		X	X	X			X
		Roger Kaye	X		Review	Review	X			X
Fisheries	Matt Whitman		X			X	X			X
		Randy Brown	X		X	Review	X			X
Wildlife (Birds)	Debbie Nigro		X			X	X			X
		Chris Latty	X		X	Review	X			X

Role	BLM	FWS	Issues & Alternatives	Chapter 1 and 2	Chapter 3 (Affected Environment)	Chapter 4 (Environmental Impacts & Cumulative Effects)	BMPs	Public Meetings	Gov Consult	Response to Comments
Wildlife (Mammals)	Tim Vosburgh		X			X	X			X
		Steve Arthur	X		X	Review	X			X
T&E Species and Consultation	Debbie Nigro (BA – Birds)		X			X	X			X
		MMPA – Bear Ted Swem (ESA consultation)	X		X	Review	X			X
Socioeconomics and Environmental Justice	Stacey Fritz		X			X	X	X	X	X
		Hollis Twitchell/Erin Carver	X		X	Review	X	X	X	X
Subsistence & 810 Analysis	Stacey Fritz (responsible for 810 analysis)		X			X	X	X	X	X
		Hollis Twitchell	X		X	Review	X	X	X	X
Lands/Realty	Donna Wixon		X			X	X			X
		Susan LaKomski	X		X	Review	X			X
VRM/Transportation	Randy Goodwin	Jennifer Reed	X		X	X	X			X
Wilderness		Roger Kaye	X		X	X	X			X
Wild & Scenic Rivers	Randy Goodwin		X			X	X			X
		Jennifer Reed	X		X	Review	X			X
Other Special Land Designations	Randy Goodwin		X			X	X			X
		Jennifer Reed	X		X	Review	X			X
Hazardous Materials	Melody Debenham					X	X			X
		Angela Matz	X		X	Review	X			X
GIS/Mapping	Cindy Hamfler			X	X			X		
		Sheila Dufford		X	X			X		

## **IDT Team**

All participants identified in this Project Initiation Letter will work together throughout the analysis and documentation process.

The IDT Lead is responsible for communicating with the managers on a regular basis, ensuring the process is meeting timeframes and providing assignments and instructions to IDT members. In addition, the IDT Lead is responsible for finalizing the proposed action, leading and facilitating IDT meetings, writing Chapters 1 and 2, compiling and editing Chapters 3 and 4, finalizing the NEPA document and assuring a complete project record.

All IDT members will be responsible for identifying environmental and/or social issues related to the proposed action, develop best management practices and propose alternatives based on issues.

Fish and Wildlife Service staff will be primarily responsible for writing Chapter 3 (Existing Condition) while BLM staff will be primarily responsible for writing Chapter 4 (Environmental Impacts) with review by FWS specialists (refer to Table 1). Communication is critical and the IDT Lead and managers should be notified as soon as possible of any potential issues or deadlines that can't be met. The BLM will share draft copies of the sections of the EA for FWS review. The BLM will engage the FWS when a decision is required regarding substantive work or material to be included in the EA that is within the scope of its jurisdiction by law or special expertise. BLM will provide written responses to FWS comments and rationale for recommendations not incorporated into the EA. Any questions should be directed to the IDT Lead, Donna Wixon at [dwixon@blm.gov](mailto:dwixon@blm.gov) or 474-2301.

After the Proposed Action is finalized (approximately early June), there will be weekly IDT update conference calls each Tuesday at 3pm (call in number will be provided). There will also be an in person IDT meeting to identify draft best management practices and alternatives.

The BLM District Manager and the FWS Arctic National Wildlife Refuge Manager will be given briefings at key milestones during the process such as after Issue Statement Development, Alternative Development, and determination of Environmental Impacts (including the 810 analysis and ESA impacts). Key IDT members may need to be available to attend briefings.

In addition, the IDT Lead will update managers weekly on the timeline, process, and any issues that need to be resolved.

## **NEPA**

Under the new Department NEPA direction, complex Environmental Assessments will be required to be less than 50 pages in length (appendices are not included in the total page numbers). All IDT members will need to be cognizant of the page limitations and write their sections accordingly. Specialists should complete Specialist Reports for their resource that will be included as an appendix and provide a summary of their findings for the body of the EA. Even if a resource is found to have no issues associated with the proposed action, a Specialist Report should still be completed to explain why there are no issues associated with that resource.

## **Timeframes**

Under the 43 CFR 3152 (Mineral Exploration in Alaska), the authorized officer is required to review and approve a seismic permit within 90 calendar days of receiving an application unless

compliance with statutory requirements, such as NEPA, would delay the action. Due to the high likelihood of public interest in this project, the need for public outreach and the amount of time necessary for the Endangered Species Act and Marine Mammal Protection Act consultations, it is not feasible to meet the 90 day timeframe. See the proposed project timeline below.

### **Projected Timeline**

**May 11-** Due date for application questions from FWS and BLM to IDT Lead

**May 22** – IDT Lead compiles application questions and sends letter to applicant

**May 23** – Project Initiation Letter sent to IDT

**May 22-June 1** – Draft Affected Environment (FWS and Key BLM IDT members) (Refer to Table 1)

**May 31** – Deadline for applicant response to questions

**May 31-June 6** - Finalize Proposed Action and post to BLM ePlanning website (IDT Lead)

**June - November** –MMPA Incidental Take Regulations development (published in Federal Register in November and final rule in January)

**June 6** – IDT Lead sends Proposed Action to team to draft Issue Statements

**June 12** – Deadline for Issue Statements from IDT to IDT Lead

**June 12** – IDT Lead sends letter to applicant regarding schedule

**June 13-27** – All IDT members draft proposed Best Management Practices and draft Alternatives based on Issues

**June 28** – In person IDT meeting to identify draft Best Management Practices and Alternatives. Additional BMPs may be identified during the environmental impacts analysis.

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**Nichelle Jones**

(BLM Arctic District Manager)

**Steve Berendzen**

(FWS Arctic National Wildlife Refuge Manager)

**From:** [Berendzen, Steve](#)  
**To:** [Brady, Stephanie](#)  
**Cc:** [Loya, Wendy](#); [Joanna Fox](#)  
**Subject:** Re: Project Initiation Letter for Coastal Plain Seismic EA  
**Date:** Tuesday, May 29, 2018 1:56:36 PM

---

Thanks, Stephanie - I like your suggested additions. We'll run them by Shelly with the expectation that it gets incorporated.

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

On Tue, May 29, 2018 at 7:24 AM, Brady, Stephanie <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)> wrote:

Hi there Steve - I added some language regarding review by FWS of the EA - attached for you to take a look - in track changes. Let me know if you need anything else. Stephanie

[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov) | Branch Chief, Conservation Planning and Policy |  
U.S. Fish and Wildlife Service | National Wildlife Refuge System | Alaska |  
907.306.7448  
<https://sites.google.com/a/fws.gov/alaska-region-office-of-conservation-planning-policy/home> (DOI employees)

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

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

**From:** **Joanna Fox** <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Date:** Fri, May 25, 2018 at 8:51 AM  
**Subject:** Fwd: Project Initiation Letter for Coastal Plain Seismic EA  
**To:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

Not sure why Shelly didn't include you. Did you already sign this? Do we need the version with her signature before you can sign so we can send out to our staff?

---

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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From: Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)>

Date: Thu, May 24, 2018 at 3:16 PM

Subject: Project Initiation Letter for Coastal Plain Seismic EA

To: Nolan Heath <[nheath@blm.gov](mailto:nheath@blm.gov)>, Hillis, Catherine <[chillis@blm.gov](mailto:chillis@blm.gov)>, Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

Hey All:

We incorporated a few last minute and minor edits. I am planning to sign the attached PIL before I scan it and send it out to my staff later today. Please either edit, sign and send or just forward this email, indicating your concurrence, to your assigned staff.

Thanks.

-Shelly

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

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

**From:** [Joanna Fox](#)  
**To:** [Roger Kaye](#); [Christopher Latty](#); [Jennifer Reed](#); [Stephen Arthur](#); [Burkart, Greta](#); [Hollis Twitchell](#); [Joshua Rose](#); [Brown, Randy](#); [Patrick O'Dell](#); [Edward Declava](#); [Erin Carver](#); [Swem, Ted](#); [Susan LaKowski](#)  
**Cc:** [Wendy Loya](#); [Drew Crane](#); [John Trawicki](#); [stephanie brady](#); [Steve Berendzen](#)  
**Subject:** Re: New Meeting?  
**Date:** Wednesday, May 30, 2018 2:06:36 PM

---

Thanks to those of you who got right back to me on your availability June 5. It turns out June 5 does not work well for the majority of the BLM interdisciplinary team staff, so they're now proposing June 4 at 10am. If you're available then please let me know as soon as possible.

Thanks!

---

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](http://www.facebook.com/arcticnationalwildliferefuge)

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

On Tue, May 29, 2018 at 3:48 PM Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)> wrote:

In response to some of the questions we asked, the seismic applicant would like to give a couple of presentations about how they conduct seismic work in the Arctic. They're proposing the first as an on-line webinar-type presentation, to be offered June 5 at 10 am. If this date and/or time will not fit into your schedule, will you please let me know asap? I'd like to give Donna an indication of how well this might work for us.

(Arctic Refuge staff - if need be we will change our standing bi-weekly staff meeting to accommodate this presentation).

Thanks!  
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](http://www.facebook.com/arcticnationalwildliferefuge)

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

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

From: Wixon, Donna <[dwixon@blm.gov](mailto:dwixon@blm.gov)>

Date: Tue, May 29, 2018 at 3:26 PM

Subject: New Meeting?

To: Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)>

Cc: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, LaMarr, Sarah <[slamarr@blm.gov](mailto:slamarr@blm.gov)>, Robert Brumbaugh <[rbrumbau@blm.gov](mailto:rbrumbau@blm.gov)>

Good Afternoon,

I just spoke with Sue Simonds with SAE, she had some questions on our questions about the project. SAE has offered to give a couple of presentations about seismic to all of the people working on the EA. The first presentation would be an on-line skype presentation going over the basics of how SAE conducts seismic in the Arctic. They would like to do this June 5th. Does that seem like an okay day? Would 10am work?

On July 10, they would like to come to Fairbanks and give a presentation and/or answer questions. Would 11am work for this?

Once we decide on a date and time I will send out a meeting invite.

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](mailto:dwixon@blm.gov)

On Tue, May 29, 2018 at 12:20 PM, Jones, Nichelle (Shelly) <[njones@blm.gov](mailto:njones@blm.gov)> wrote:

Hello All: We have a couple of us out this afternoon. In lieu of a meeting, I have the following update:

Donna sent the request for additional information last week. We also issued the PIL to the IDT members. I have a meeting with our state office on Thursday to get someone to cover the acoustic section. IDT members should be working on the affected environment and consequences sections.

The next milestones from the schedule are as follows:

**May 22-June 1** – Draft Affected Environment (FWS and Key BLM IDT members)

**May 31** – Deadline for applicant response to questions

**May 31-June 6** - Finalize Proposed Action and post to BLM ePlanning website (IDT Lead)

**June - November** –MMPA Incidental Take Regulations development (published in Federal Register in November and final rule in January)

**June 6** – IDT Lead sends Proposed Action to team to draft Issue Statements.

See some of you at the scoping meeting for the CPLEIS this evening.

-Shelly

Shelly Jones  
Acting Manager  
Arctic District Office  
[222 University Avenue](#)  
[Fairbanks, AK 99709](#)

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

**From:** [Laker, Mark](#)  
**To:** [Wackowski, Stephen](#)  
**Cc:** [Wright, Brian](#); [Nathan Olson](#); [Chris Noyles](#); [Tracy Fuller](#); [Bathrick, Mark](#); [Wendy Loya](#); [John Trawicki](#); [Brian Lubinski](#); [Bradley Koeckeritz](#)  
**Subject:** Re: 1002 area  
**Date:** Wednesday, April 18, 2018 1:28:28 PM  
**Attachments:** [Vote Button sm.ico](#)  
[2018\\_HighResolutionOrthoimagery\\_ANWR\\_1002.docx](#)

---

Steve,

Attached is a proposal Nate Olson and I submitted a few weeks ago for creating an orthomosaic of the 1002 lands at a resolution of 45cm. This is a cost w/o ground control, so the accuracy would be around 1-2 meters. With 8-10 ground control points and scale bars this can be decreased to <10cm.

Having BLM do the ground control may be most cost effective.

I haven't seen what the actual desired products and specs are, so I can't give a definitive cost estimate. If needed we have access to higher end camera systems such as a Phase One camera, Applanix mount, and IMU within FWS. I also have a very good relationship with Alaska Division of Geological & Geophysical Surveys. They have just acquired a LiDAR unit, so it may be possible to partner with them, if some LiDAR acquisition is needed.

Again, I can be more helpful knowing what the desired products are.

thx,

m

On Wed, Apr 18, 2018 at 9:09 AM, Wackowski, Stephen <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Gents-

Thanks for taking the initiative on this. Any in-house DEM capability should be looks at first, especially if it meets the data requirements for BLM and USFWS as we undertake the congressional mandated 1002 lease sale. As I am sure you all know, this is a top secretarial priority for Alaska.

I'm adding Mark Bathrick at OAS to the chain. Mark- Can you cast a net and see if we have any additional L48 capability to collect structure for motion or LIDAR/LIDAR like elevation data. I wish we had BVLOS UAS capability to do it, but 1002 is so large that manned aircraft is probably our best and only option.

-Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs

Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
[907-271-5485](#)

On Wed, Apr 18, 2018 at 1:01 PM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Mark,

In February, I was contacted by the Arctic LCC regarding elevation data available for the 1002 area. During the conversation, the FWS was making inquiries at acquiring high resolution elevation data for the 1002.

I provided an overview of the 3DEP Broad Agency Announcement and the matching federal funding for the collection of lidar at QL2 level. I noted that sfm is currently not a collection methods approved by the program to gain federal funding assistance. FWS mentioned the possibility of collecting sfm and I believe they were in contact with Matt Nolan out of Fairbanks.

The FWS is also interested in updating the hydrography for the 1002 area and has made some inquiries on possible options on how to complete.

Brian

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
(907) 456-0445  
[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)

On Tue, Apr 17, 2018 at 3:56 PM, Noyles, Christopher <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)> wrote:

Steve,

I've had a couple discussion with folks about the potential interest in collecting Lidar or Structure for Motion (SfM) data in the 1002 area. If you recall we talked briefly about this in our initial PB meeting with FWS. At the time, I reminded folks of the available IfSAR data which Brian Wright has delivered.

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Cheers,

Chris

Christopher C. Noyles  
Civil Applications Committee - Alaska Liaison  
US Department of Interior/Bureau of Land Management  
Alaska State Office, Division of Support Services  
[222 West 7th Ave # 13, Anchorage AK 99513](#)

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Personal Cell: (907) 854-8896  
FAX: (907) 271-3118  
email: [cnoyles@blm.gov](mailto:cnoyles@blm.gov)



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

From: **Laker, Mark** <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)>  
Date: Thu, Mar 22, 2018 at 1:48 PM  
Subject: 1002 area  
To: "Noyles, Christopher" <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)>  
Cc: Nathan Olson <[nathan\\_olson@fws.gov](mailto:nathan_olson@fws.gov)>

Chris,

Flying the 1002 area would take about 10 hours (not including ferry time) for 50 cm ortho and DSM. That's using the Aero Commander, flying at 10,000 MSL going 220 kt. I'm not sure what the current wet rate of the commander is, probably around \$2800.

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thx,

m

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Mark Laker - Ecologist  
Kenai National Wildlife Refuge  
(907) 260-2809 phone  
(907) 398-9589 cell

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Brian Wright  
National Map Liaison - Alaska  
US Geological Survey  
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Grace Hall, Room 228  
[Anchorage, AK 99508](#)  
Office/Cell: 907-201-0113  
Email: [bwright@usgs.gov](mailto:bwright@usgs.gov)

[The National Map](#) - Your Source for Topographic



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**From:** [Leonard, Paul](#)  
**To:** [Laker, Mark](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: 1002 area imagery  
**Date:** Wednesday, April 25, 2018 11:05:23 AM

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Hi Mark,

Earlier in this chain you mention this:  
Nate Olson and I submitted a proposal a few weeks ago for creating an orthomosaic of the 1002 lands at a resolution of 45cm.

However, that proposal was not attached to the email I received. Can you pass that along?

To answer one of your questions:

Wendy is out of town this week and I am taking the lead on facilitating this discussion (From the Arctic LCC's perspective). I am meeting with Refuge staff to get specifics on desired products and resolution and will circle back with you. I will say that we have several prospective pieces that we are trying to align to achieve maximum efficiency.

Cheers,  
Paul

On Wed, Apr 18, 2018 at 11:48 AM, Laker, Mark <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)> wrote:

Wendy,

Who is requesting this data? Who is the PI? I see FWS, and Arctic LCC mentioned, but no individuals? What is the desired product and resolution?

Even with matching funding from the 3DEP program, we can most likely do it cheaper in house and get additional products.

thx,

m

On Wed, Apr 18, 2018 at 11:37 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Mark,

Thanks for keeping us in the loop, please include Paul Leonard in all future correspondence. Towards this conversation, we have a regional plan to pursue updated vegetation, NWI and NHD maps. We mentioned the need for snow free highly accurate SfM. Let's do our best to make sure we coordinate wherever possible for best products and cost savings.

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 Apr 18, 2018, at 12:27, Laker, Mark <[mark\\_laker@fws.gov](mailto:mark_laker@fws.gov)> wrote:

Steve,

Attached is a proposal Nate Olson and I submitted a few weeks ago for creating an orthomosaic of the 1002 lands at a resolution of 45cm. This is a cost w/o ground control, so the accuracy would be around 1-2 meters. With 8-10 ground control points and scale bars this can be decreased to <10cm.

Having BLM do the ground control may be most cost effective.

I haven't seen what the actual desired products and specs are, so I can't give a definitive cost estimate. If needed we have access to higher end camera systems such as a Phase One camera, Applanix mount, and IMU within FWS. I also have a very good relationship with Alaska Division of Geological & Geophysical Surveys. They have just acquired a LiDAR unit, so it may be possible to partner with them, if some LiDAR acquisition is needed.

Again, I can be more helpful knowing what the desired products are.

thx,

m

On Wed, Apr 18, 2018 at 9:09 AM, Wackowski, Stephen  
<[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)> wrote:

Gents-

Thanks for taking the initiative on this. Any in-house DEM capability should be looks at first, especially if it meets the data requirements for BLM and USFWS as we undertake the congressional mandated 1002 lease sale. As I am sure you all know, this is a top secretarial priority for Alaska.

I'm adding Mark Bathrick at OAS to the chain. Mark- Can you cast a net and see if we have any additional L48 capability to collect structure for motion or LIDAR/LIDAR like elevation data. I wish we had BVLOS UAS capability to do it, but 1002 is so large that manned aircraft is probably our best and only option.

-Steve

Steve Wackowski  
Senior Adviser for Alaskan Affairs  
Department of the Interior  
[4230 University Drive, Suite 300](#)  
[Anchorage, AK 99508](#)  
[907-271-5485](#)

On Wed, Apr 18, 2018 at 1:01 PM, Wright, Brian <[bwright@usgs.gov](mailto:bwright@usgs.gov)> wrote:

Mark,

In February, I was contacted by the Arctic LCC regarding elevation data available for the 1002 area. During the conversation, the FWS was making inquiries at acquiring high resolution elevation data for the 1002.

I provided an overview of the 3DEP Broad Agency Announcement and the matching federal funding for the collection of lidar at QL2 level. I noted that sfm is currently not a collection methods approved by the program to gain federal funding assistance. FWS mentioned the possibility of collecting sfm and I believe they were in contact with Matt Nolan out of Fairbanks.

The FWS is also interested in updating the hydrography for the 1002 area and has made some inquiries on possible options on how to complete.

Brian

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
(907) 456-0445  
[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)

On Tue, Apr 17, 2018 at 3:56 PM, Noyles, Christopher <[cnoyles@blm.gov](mailto:cnoyles@blm.gov)> wrote:

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Mark Laker - Ecologist

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Paul Leonard, PhD  
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