

**From:** [Martin, John](#)  
**To:** [John Trawicki](#); [Wendy Loya](#)  
**Cc:** [Stephanie Brady](#)  
**Subject:** Coastal Plain 1002 Area: Draft EIS for US-Canada Agreement for Conservation of Migratory Caribou  
**Date:** Thursday, February 8, 2018 11:48:20 AM

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All

In rumaging through the 1002(d) archives, I located a draft copy of the *Draft EIS for the Agreement Between the United States and Canada for the Conservation of Migratory Caribou*, dated Mar 1980. Includes a loose cover letter from the State Department dated 14 Apr 1980.

At 1300 yesterday it was mentioned that there was a search for international agreements for the 1002 area.

Available should it be needed. Document is not scanned.

Thanks

John

**From:** [Loya, Wendy](#)  
**To:** [Martin, John](#)  
**Cc:** [Stephen Arthur](#); [John Trawick](#); [Steve Berendzen](#); [Joanna Fox](#); [Stephanie Brady](#); [Doug Damberg](#); [Johnson, Carl](#)  
**Subject:** Re: Coastal Plain 1002 Area Environs: FWS-sponsored, Funded or Conducted Studies Gray Literature Search  
**Date:** Thursday, February 8, 2018 11:58:07 AM  
**Attachments:** [USGS bibliography NPRA and 1002 Research 1 19 2018 FINAL.docx](#)

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John,

The request you just made for the bibliography is inconsistent with the direction that was given verbally at the meeting and through a subsequent email between you, Steve Arthur and myself in the afternoon.

If there was further discussion after the assignment was given that changed the scope, I was not included in that discussion. I will send out a message cancelling your request at 11am this morning, offering the next hour as an opportunity for those of you copied on this email to provide further information before I do that.

The request was stated verbally and in writing as such, and included an example bibliography from USGS (attached):

We are developing a bibliography of FWS primary or co-authored publications for research in the Arctic (I would include 1002 and NPRA/broader Alaskan Arctic; as for example there may be a publications by Rick Lanctot that are not specific to 1002, but north slope wide). The audience is at DOI HQ. I recommend we restrict our bibliography to reports available through ARLIS, ScienceBase (Arctic LCC filed reports there) or the peer-reviewed literature; however if you believe there are Final Reports from significant studies that are not captured, let's discuss how we want to proceed. I do not believe we need to include "desktop" reports or interim project reports.

Sincerely,  
Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.277.2942 (mobile)

On Thu, Feb 8, 2018 at 9:29 AM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:  
Chris, Steve and Greta

There has been a request by the RD via HQ to identify any literature, i.e., resources studies that were conducted wholly or in-part by the Service, specifically not retrievable to the general public as published or peer-reviewed. This may include annual, interim or other documents under the larger umbrella of "gray literature," but not those connected to documents that are published in their final form, i.e., an interim report that when complete is made available to the public or published in a journal. Another category of gray literature are masters thesis or doctoral dissertation that are not formally published. Funding sources may vary, either direct by the Refuge or from other sources such as grants, that include study on the

Refuge or parts thereof.

Eric Taylor indicated that there may be some bird studies that may fit this category and have not been included in the USGS literature reviews to date: Douglas et al. (2002); Devaris (2018); or Pearce et al. (2018). The primary focus is on studies since 2002 but should not exclude going back further and possibly all the way back to the start of the initial 1002(d) resource assessments (Clough et al. 1987).

Additionally, there may be other citations for other resources - biological or physical, particularly water resources.

As with other data calls recently this is high speed, low drag and needs to be completed by COB Fri 16 Feb 2018, therefore, submission of anything you may have should be sent to me by **COB Wed 14 Feb 2018**.

And yes, I am going through the ServCat and RefShare databases, but you and staff may know what studies might be included better than I.

Thanks for your time and attention on this matter.

John

#### Literature Cited

Clough, N.K., P.C. Patton, and A.C. Christiansen. 1987. Arctic National Wildlife Refuge, Alaska, coastal plain resources assessment: report and recommendation to the Congress of the United States and final legislative environmental impact statement (2 Volumes). Washington, D.C.: U.S. Department of the Interior, Geological Survey and Bureau of Land Management.

Devaris, A. 2018. Bibliography of USGS research conducted in the Arctic National Wildlife Refuge (ANWR) 1002 Area and/or the National Petroleum Reserve - Alaska (NPRA). Information/briefing memorandum dated 19 January.

Douglas, D.C., P.E. Reynolds, and E.B. Rhodes. 2002. Arctic Refuge coastal plain terrestrial wildlife research summaries. Reston, VA: U.S. Department of the Interior, Geological Survey Biological Science Report USGS/BRD/BSR-2002-0001.

Pearce, J.M., P.L. Flint, T.C. Atwood, D.C. Douglas, L.G. Adams, H.E. Johnson, S.M. Arthur, and C.J. Latty. 2018. Summary of wildlife-related research on the coastal plain of the Arctic National Wildlife Refuge, 2002-17. Reston, VA: U.S. Department of the Interior, Geological Survey Open-file Report 2018-1003.

**From:** [Arthur, Stephen](#)  
**To:** [Loya, Wendy](#)  
**Cc:** [Martin, John](#); [John Trawicki](#); [Steve Berendzen](#); [Joanna Fox](#); [Stephanie Brady](#); [Doug Damberg](#); [Johnson, Carl](#)  
**Subject:** Re: Coastal Plain 1002 Area Environs: FWS-sponsored, Funded or Conducted Studies Gray Literature Search  
**Date:** Thursday, February 8, 2018 12:29:36 PM

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One other point: compiling a bibliography of unpublished reports would be a monumental task. Given the short timeline and the other assignments that we are all currently working on, such a listing would undoubtedly be incomplete. I do see this as a worthwhile long-term goal for us to consider, to answer future requests of this kind.

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, Feb 8, 2018 at 9:58 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

John,

The request you just made for the bibliography is inconsistent with the direction that was given verbally at the meeting and through a subsequent email between you, Steve Arthur and myself in the afternoon.

If there was further discussion after the assignment was given that changed the scope, I was not included in that discussion. I will send out a message cancelling your request at 11am this morning, offering the next hour as an opportunity for those of you copied on this email to provide further information before I do that.

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Sincerely,  
Wendy

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

907.277.2942 (mobile)

On Thu, Feb 8, 2018 at 9:29 AM, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:  
Chris, Steve and Greta

There has been a request by the RD via HQ to identify any literature, i.e., resources studies that were conducted wholly or in-part by the Service, specifically not retrievable to the general public as published or peer-reviewed. This may include annual, interim or other documents under the larger umbrella of "gray literature," but not those connected to documents that are published in their final form, i.e., an interim report that when complete is made available to the public or published in a journal. Another category of gray literature are masters thesis or doctoral dissertation that are not formally published. Funding sources may vary, either direct by the Refuge or from other sources such as grants, that include study on the Refuge or parts thereof.

Eric Taylor indicated that there may be some bird studies that may fit this category and have not been included in the USGS literature reviews to date: Douglas et al. (2002); Devaris (2018); or Pearce et al. (2018). The primary focus is on studies since 2002 but should not exclude going back further and possibly all the way back to the start of the initial 1002(d) resource assessments (Clough et al. 1987).

Additionally, there may be other citations for other resources - biological or physical, particularly water resources.

As with other data calls recently this is high speed, low drag and needs to be completed by COB Fri 16 Feb 2018, therefore, submission of anything you may have should be sent to me by **COB Wed 14 Feb 2018**.

And yes, I am going through the ServCat and RefShare databases, but you and staff may know what studies might be included better than I.

Thanks for your time and attention on this matter.

John

#### Literature Cited

Clough, N.K., P.C. Patton, and A.C. Christiansen. 1987. Arctic National Wildlife Refuge, Alaska, coastal plain resources assessment: report and recommendation to the Congress of the United States and final legislative environmental impact statement (2 Volumes). Washington, D.C.: U.S. Department of the Interior, Geological Survey and Bureau of Land Management.

Devaris, A. 2018. Bibliography of USGS research conducted in the Arctic National Wildlife Refuge (ANWR) 1002 Area and/or the National Petroleum Reserve - Alaska (NPRA). Information/briefing memorandum dated 19 January.

Douglas, D.C., P.E. Reynolds, and E.B. Rhodes. 2002. Arctic Refuge coastal plain terrestrial wildlife research summaries. Reston, VA: U.S. Department of

the Interior, Geological Survey Biological Science Report USGS/BRD/BSR-2002-0001.

Pearce, J.M., P.L. Flint, T.C. Atwood, D.C. Douglas, L.G. Adams, H.E. Johnson, S.M. Arthur, and C.J. Latty. 2018. Summary of wildlife-related research on the coastal plain of the Arctic National Wildlife Refuge, 2002-17. Reston, VA: U.S. Department of the Interior, Geological Survey Open-file Report 2018-1003.

**From:** [Jorgenson, Janet](#)  
**To:** [Wendy Loya](#)  
**Subject:** Draft of vegetation 1002 assessment  
**Date:** Thursday, February 8, 2018 2:35:45 PM  
**Attachments:** [1002VegetationResourceAssessment2-2018-2.docx](#)

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Hi, here is the draft I have so far. Any comments or any large topics I'm overlooking? Is Josh Rose doing the soils and permafrost section?

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Arthur, Stephen](#)  
**To:** [Loya, Wendy](#); [Martin, John](#)  
**Subject:** Re: Coastal Plain 1002 Area Environs: FWS-sponsored, Funded or Conducted Studies Gray Literature Search  
**Date:** Thursday, February 8, 2018 6:04:34 PM  
**Attachments:** [Additional pubs DCP.docx](#)  
[ANWR mammals etc.docx](#)  
[ANWRbotany-publicationlist2018-calibri.docx](#)  
[Arctic bibliography mostly shorebirds Churchwell.docx](#)

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Wendy and John,

Here are some bibliographies compiled by Refuge staff. These may be helpful in your task of compiling publications by FWS authors. For publications prior to 2010, the Arctic Refuge Refworks bibliography maybe helpful:

<http://www.refworks.com/refshare/?site=040621159772400000/RWWS6A185318/ArcticRefuge>.

Steve

Stephen M. Arthur, Ph.D.

*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

||

**From:** [Martin, John](#)  
**To:** [Arthur, Stephen](#)  
**Cc:** [Loya, Wendy](#)  
**Subject:** Re: Coastal Plain 1002 Area Environs: FWS-sponsored, Funded or Conducted Studies Gray Literature Search  
**Date:** Friday, February 9, 2018 7:41:58 AM

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Steve

Thanks!

This is greatly appreciated.

J

On Thu, Feb 8, 2018 at 4:03 PM, Arthur, Stephen <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)> wrote:  
Wendy and John,

Here are some bibliographies compiled by Refuge staff. These may be helpful in your task of compiling publications by FWS authors. For publications prior to 2010, the Arctic Refuge Refworks bibliography maybe helpful:

<http://www.refworks.com/refshare/?site=040621159772400000/RWWS6A185318/ArcticRefuge>.

Steve

**Stephen M. Arthur, Ph.D.**

*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

**From:** [Wendy Loya](#)  
**To:** [Janet Jorgenson](#)  
**Subject:** RE: Draft of vegetation 1002 assessment  
**Date:** Friday, February 9, 2018 2:36:01 PM  
**Attachments:** [Soil, permafrost and wetlands Resource Science Assesment for 1002 area J...docx](#)

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Hi Janet,

Thanks for making progress on this. Josh Rose provided the attached document with comments about ideas for soils, but provided them as comments to a very draft framework I had developed to give him a document in which to insert his knowledge. I thought when you and I talked we agreed to lump soils, permafrost, wetlands and vegetation, but perhaps I over-interpreted that to mean that you would handle pulling those topics in? If you have time to do that, I would be grateful. If you do not, I will try to do it this weekend; in which case I will create a separate document like the one attached, and keep wetlands included?

Thank you,  
Wendy

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

**From:** Jorgenson, Janet [mailto:[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)]  
**Sent:** Thursday, February 08, 2018 12:36 PM  
**To:** Wendy Loya  
**Subject:** Draft of vegetation 1002 assessment

Hi, here is the draft I have so far. Any comments or any large topics I'm overlooking? Is Josh Rose doing the soils and permafrost section?

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Loya, Wendy](#)  
**To:** [Janet Jorgenson](#); [Greta Burkart](#); [Stephen Arthur](#); [Christopher Latty](#); [John Trawicki](#); [Joanna Fox](#); [Steve Berendzen](#); [Leonard, Paul](#)  
**Subject:** Bibliography request CLARIFICATION  
**Date:** Friday, February 9, 2018 3:11:50 PM

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Dear Colleagues,

Yesterday you received a request from John Martin that mistakenly asked for gray literature and unpublished reports (in summary). That was not the request that should have been made. I apologize for the time you have put into this, but the request for the bibliography was clearly made as follows:

We are developing a bibliography of FWS primary or co-authored publications for research in the Arctic (I would include 1002 and NPRA/broader Alaskan Arctic; as for example there may be a publications by Rick Lanctot that are not specific to 1002, but north slope wide). The audience is at DOI HQ. I recommend we restrict our bibliography to reports available through ARLIS, ScienceBase (Arctic LCC filed reports there) or the peer-reviewed literature; however if you believe there are Final Reports from significant studies that are not captured, let's discuss how we want to proceed. I do not believe we need to include "desktop" reports or interim project reports.

I believe the process for this effort is: John Martin to compile and then ask you all to review that list to see if there are things missing. Please know that your efforts will be useful at a later stage, but the gray literature and unpublished documents exceed the scope of this request.

Please forward to anyone else you may have contacted for assistance.

Sincerely,

Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.277.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** Tax Act 2017 TitleII Sec20001 OilandGas ANWR.pdf  
**Date:** Friday, February 9, 2018 3:34:54 PM  
**Attachments:** [Tax Act 2017 TitleII Sec20001 OilandGas ANWR.pdf](#)

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**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** EIS Team leads: Coastal Plain 1002 ID Team\_FWS\_020118.xlsx  
**Date:** Friday, February 9, 2018 3:42:11 PM  
**Attachments:** [Coastal Plain 1002 ID Team\\_FWS\\_020118.xlsx](#)

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These are similar to but not identical to the FWS Resource Assessment Teams

**From:** [Wendy Loya](#)  
**To:** [Lynne Santos](#)  
**Subject:** FW: 1002 Coastal Plain Coordination Biweekly Meeting (MSMC) Call in: [REDACTED] or [REDACTED]  
Participant: [REDACTED]  
**Attachments:** [1002 Coastal Plain Coordination Biweekly Meeting \(MSMC\) Call in \[REDACTED\].msg](#) Participant  
[\[REDACTED\].msg](#)  
[1002 Coastal Plain Coordination Biweekly Meeting \(MSMC\) Call in \[REDACTED\].msg](#) Participant  
[\[REDACTED\].msg](#)  
[1002 Coastal Plain Coordination Biweekly Meeting \(MSMC\) Call in \[REDACTED\].msg](#) Participant  
[\[REDACTED\].msg](#)  
[1002 Coastal Plain Coordination Biweekly Meeting \(MSMC\) Call in \[REDACTED\].msg](#) Participant  
[\[REDACTED\].msg](#)

---

Hi Lynn,

Could you please add Bud Cribley to this biweekly meeting invitation, at Greg's request? His email is bud\_cribley@fws.gov <mailto:bud\_cribley@fws.gov> .

Thank you,

Wendy

-----Original Appointment-----

From: tauline\_davis@fws.gov <mailto:tauline\_davis@fws.gov> [mailto:tauline\_davis@fws.gov <mailto:tauline\_davis@fws.gov> ] On Behalf Of Regional Director's Office

Sent: Monday, January 29, 2018 5:14 PM

To: Regional Director's Office; wendy\_loya@fws.gov <mailto:wendy\_loya@fws.gov>; mary\_colligan@fws.gov <mailto:mary\_colligan@fws.gov>; greg\_siekaniec@fws.gov <mailto:greg\_siekaniec@fws.gov>; doug\_damberg@fws.gov <mailto:doug\_damberg@fws.gov>; sarena\_selbo@fws.gov <mailto:sarena\_selbo@fws.gov>; patrick\_lemons@fws.gov <mailto:patrick\_lemons@fws.gov>; socheata\_lor@fws.gov <mailto:socheata\_lor@fws.gov>; stephanie\_brady@fws.gov <mailto:stephanie\_brady@fws.gov>; amee\_howard@fws.gov <mailto:amee\_howard@fws.gov>; joanna\_fox@fws.gov <mailto:joanna\_fox@fws.gov>; carl\_johnson@fws.gov <mailto:carl\_johnson@fws.gov>; sara\_boario@fws.gov <mailto:sara\_boario@fws.gov>; jenifer\_kohout@fws.gov <mailto:jenifer\_kohout@fws.gov>; sarah\_conn@fws.gov <mailto:sarah\_conn@fws.gov>; steve\_berendzen@fws.gov <mailto:steve\_berendzen@fws.gov>; eric\_taylor@fws.gov <mailto:eric\_taylor@fws.gov>; drew\_crane@fws.gov <mailto:drew\_crane@fws.gov>; mitch\_ellis@fws.gov <mailto:mitch\_ellis@fws.gov>; karen\_clark@fws.gov <mailto:karen\_clark@fws.gov>

Subject: 1002 Coastal Plain Coordination Biweekly Meeting (MSMC) Call in: [REDACTED] Participant: [REDACTED]

When: Occurs every 2 weeks on Friday effective 1/26/2018 from 9:00 AM to 10:00 AM (UTC-09:00) Alaska.

Where: FWS-FW7 Mary Smith Media Center/Regional Office

**From:** [Brady, Stephanie](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Request for agenda items for FWS-BLM meeting on 1002 area  
**Date:** Monday, February 12, 2018 9:36:44 AM

---

Thanks Wendy - I added an item - just a check-in on the MOU/SOW/NOI -

[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

On Fri, Feb 9, 2018 at 1:16 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Please feel free to add or edit this list prior to the call on Tuesday at 2pm.

[https://docs.google.com/document/d/1WV13\\_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit](https://docs.google.com/document/d/1WV13_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit)

We can call together from Anchorage in the Science Applications room. BLM will come over if they have time, but likely will also join by phone. Call in number in BLM calendar invite.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Burkart, Greta](#)  
**To:** [Paul Leonard](#); [Wendy Loya](#); [John Trawicki](#)  
**Subject:** Fwd: draft resource assessment for water  
**Date:** Monday, February 12, 2018 2:50:32 PM  
**Attachments:** [02112018\\_Water Resources \(1\).docx](#)

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Hi Paul and Wendy,

Let us know if you have any comments on the attached water resource assessment. If you can get them to us by Wednesday, that would be great. Richard Kemnitz (BLM hydrologist) and Jeff Conway (USGS Chief of Water Resources Branch) have already commented.

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticonationalwildliferefuge](http://www.facebook.com/arcticonationalwildliferefuge)

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

**From:** **Burkart, Greta** <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>  
**Date:** Sun, Feb 11, 2018 at 12:46 PM  
**Subject:** draft resource assessment for water  
**To:** Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Roy Churchwell <[roy\\_churchwell@fws.gov](mailto:roy_churchwell@fws.gov)>, "Lanctot, Richard" <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>

Hi Everyone,

I have attached a draft of the resource assessment for water resources. This draft incorporates comments from Jeff Conway at USGS. We expect additional comments from staff at BLM.

Let me know if you have any comments on the document or about how we can collaborate aquatic work with bird surveys.

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

**From:** [Latty, Christopher](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Resource Assessments  
**Date:** Tuesday, February 13, 2018 12:56:33 AM  
**Attachments:** [REPORTING TEMPLATE Birds 2-12-18.docx](#)

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Hi Wendy,

Attached is my current working draft - I'd love to get your thoughts/critiques if you have a few minutes.

Cheers  
Chris

On Fri, Feb 9, 2018 at 3:52 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Chris,

I think if you could combine them it might better hit the target audience (non-ologists), but the most important part is getting the information in there and we can work with what we have. I hope you don't have 150 individual species needs :> !! LOL

Thanks for your efforts and hope you feel this is a useful way to convey your knowledge and think about the future science needs.

Cheers, have a great weekend,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Latty, Christopher [mailto:[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)]  
**Sent:** Friday, February 09, 2018 3:15 PM

**To:** Wendy Loya  
**Subject:** Resource Assessments

Hi Wendy - quick question for you. Several people now have commented that the bird assessment might flow better if sections were combined (maybe the "what's known" and the "remaining gaps" sections?) since we are talking about 150 species. Might this be an option, or should I stick with the template even if it requires some duplication in the individual sections?

Thanks much!

Cheers,

Chris

--

Christopher Latty

US Fish and Wildlife Service

Arctic NWR

[101 12th Avenue](#)

[Room 236](#)

[Fairbanks, AK 99701](#)

cell 907-347-4300

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#); [Payer, David](#)  
**Subject:** resource assessment for mammals  
**Date:** Tuesday, February 13, 2018 9:15:00 AM  
**Attachments:** [REPORTING TEMPLATE Other Mammals.docx](#)

---

Wendy and Dave,

Attached is a draft resource assessment for mammals other than caribou. I have received input from retired refuge biologists Fran Mauer and Patricia Reynolds, and some additional ideas from Andrew Hope. I'm not sure who else to consult with. I'd appreciate your thoughts on this draft, as well as any ideas you might have for additional reviewers.

Thanks,  
Steve

**Stephen M. Arthur, Ph.D.**  
*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

**From:** [Google Calendar](#) on behalf of [Mark Miller](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov); [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
**Subject:** NSSI support for 1002  
**Start:** Tuesday, February 13, 2018 3:00:00 PM  
**End:** Tuesday, February 13, 2018 4:00:00 PM  
**Location:** BLM-AK SO Bridge 1 [REDACTED] Passcode [REDACTED] BLM-AK SO Sitka Room  
**Attachments:** [invite.ics](#)

more details » [REDACTED]

NSSI support for 1002

Phone discussion in response to inquiry from John Martin about whether we can search NSSI Catalog for these / dissertations relevant to 1002 Area resource assessments.

When

Tue Feb 13, 2018 1pm – 2pm Alaska Time

Where

BLM-AK SO Bridge [REDACTED] Passcode [REDACTED] BLM-AK SO Sitka Room (map <[https://maps.google.com/maps?q=BLM-AK+SO+Bridge+\[REDACTED\]+Passcode+\[REDACTED\]+BLM-AK+SO+Sitka+Room&hl=en](https://maps.google.com/maps?q=BLM-AK+SO+Bridge+[REDACTED]+Passcode+[REDACTED]+BLM-AK+SO+Sitka+Room&hl=en)> )

Video call

[https://plus.google.com/\[REDACTED\]](https://plus.google.com/[REDACTED])

Calendar

[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Who

• [memiller@blm.gov](mailto:memiller@blm.gov)

- organizer

• [john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)

• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

• [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)

Going?

Yes [REDACTED]

Maybe [REDACTED]

No [REDACTED]

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More <https://support.google.com/calendar/answer/37135#forwarding>](https://support.google.com/calendar/answer/37135#forwarding).

**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#)  
**Subject:** RE: A couple of questions  
**Date:** Tuesday, February 13, 2018 10:41:34 AM

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Hi Nicole,

It does seem like having a 2 hr block reserved will be important as things speed up. We can always leave early if done. There may be some things we don't need this whole group for, or need other people in on, so we can figure that out as the timeline progresses.

I expect that Stephanie Brady will be the lead on Team Charter and MOU, but I need to be in the loop. We would like to see the NOI if possible before released so we can keep out staff up to speed on the process.

I agree on in-person being ideal, so thanks for coming today and we can definitely come downtown or CCSC.

Thanks, I am available outside the meeting times too if you want to discuss things in between meeting to keep things moving.

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:** Tuesday, February 13, 2018 7:02 AM  
**To:** Wendy Loya  
**Subject:** Re: A couple of questions

Hi Wendy,

I am wondering if an hour is going to be enough time! What do you think about having these meetings last 2 hours initially? Do you anticipate being the lead on providing input on the Team Charter and MOU? I am starting to work on these as the expectation is we are going to be ready to start scoping within the next month.

I will be over this afternoon as I think in person meetings are better but I would like to rotate hosting. Though it can be limited, there is free visitor parking on the SW corner of 7th and C. We could also look into having meetings at the Campbell Creek Science Center.

Thanks,  
Nicole

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

On Mon, Feb 12, 2018 at 2:08 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi Nicole,

Yes, I can project onto a screen, so either email me what you want to share regarding the project management plan or we can set up a webinar?

As far as other topics for tomorrow, I think we can touch base on:

- the map if needed,
- the MOU/SOW/NOI,
- discuss a request for NEPA training from BLM's perspective, and
- I would like to talk about setting up a BMP/Stips/ROP workshop for the week of March 12-16<sup>th</sup> so staff here can start to think about how to assemble information identified in our soon-to-be-completed FWS Resource Assessments for the 1002 area (which I said we hope to share by March 2).
- FWS is concerned that if nobody initiates an application for authorization under the MMPA, this could delay activities for next winter. An IHA covers 1 year of activity, a ITR is good for 5 years but is a more involved review. Drew can provide more info and answer questions.

Other outstanding questions between you and I:

1. You asked me to send language about water rights: FWS filed with State for water reservations in 1990's, has not been adjudicated; would need to be adjudicated before State can permit water use (DNR/MLW)
2. I have tracked down two hard copies of the CCP but am waiting for Vol 1 to arrive from Fairbanks
3. I am waiting to hear back from our FOIA Coordinator about sharing the request with BLM and USGS
4. I am not sure what this is: 'We heard that FWS finalized a couple of reports last week pertaining to Science in the Arctic'; we are working on our Resource Assessments and a bibliography, but unless there are publications coming out of specific programs I don't know what this is referring to.

Thanks, let me know if you need any other info before tomorrow,

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:** Monday, February 12, 2018 1:39 PM  
**To:** Wendy Loya  
**Subject:** A couple of questions

Hi Wendy,  
Thinking about our meeting tomorrow do you have a way to project something on a screen from a laptop? I am starting to develop a project management plan for the EIS and think this may be a good use of our time together. Did you have other specific topics to put on the agenda?

Also - we heard that FWS finalized a couple of reports last week pertaining to Science in the Arctic but I have no idea what they were referring to. Can you point me in the right direction?

Thank you,  
Nicole

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

**From:** [Wendy Loya](#)  
**To:** [Christopher Latty](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** RE: Resource Assessments  
**Date:** Tuesday, February 13, 2018 11:03:39 AM  
**Attachments:** [REPORTING TEMPLATE Birds 2-12-18.docx](#)

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Hi Chris,

At first read, this appears to be a great overview and list of studies needed, have you had a chance to share it with Debbie Nigro at BLM? If she has time, I think she could help ensure these are the right studies needed to protect avian habitat in an oil and gas management context.

Also, given that the next step is prioritization, it would be helpful for you to think ahead about different lenses for prioritizing this work, including:

- What data are essential for identifying existing high value habitat in the next 2-4 months (best available science) and are human/financial resources needed to compile that information?
- What data are essential for identifying high value habitat (making better available science) in the next 2-3 years and what human/financial resources needed to compile that information?
- what on the list could be included in existing efforts this year with no or some additional \$ resources?
- We'll be sharing one or more possible timelines for activities in the next weeks, but are there any studies that have to be done before seismic occurs?

If you could roll these prioritization lenses into the order of your list or the text in your list of studies needed to fill gaps, that would be great. If you can estimate how much additional effort (human and/or \$\$) it would take to do the things on the list, that will also be important for conversations starting on Feb 22 or 23<sup>rd</sup>.

So, in summary, this is a great concise effort and if you can add some of the above details, you will be well prepared for the next steps 😊 Since your list of needed studies is one of the longer ones, I am sharing this info with you now although we will prepare to share it with everyone shortly.

Wendy

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

**From:** Latty, Christopher [mailto:[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)]  
**Sent:** Monday, February 12, 2018 10:56 PM  
**To:** Wendy Loya  
**Subject:** Re: Resource Assessments

Hi Wendy,

Attached is my current working draft - I'd love to get your thoughts/critiques if you have a few minutes.

Cheers  
Chris

On Fri, Feb 9, 2018 at 3:52 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi Chris,

I think if you could combine them it might better hit the target audience (non-ologists), but the most important part is getting the information in there and we can work with what we have. I hope you don't have 150 individual species needs :> !! LOL

Thanks for your efforts and hope you feel this is a useful way to convey your knowledge and think about the future science needs.

Cheers, have a great weekend,  
Wendy

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

**From:** Latty, Christopher [mailto:[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)]  
**Sent:** Friday, February 09, 2018 3:15 PM  
**To:** Wendy Loya  
**Subject:** Resource Assessments

Hi Wendy - quick question for you. Several people now have commented that the bird assessment might flow better if sections were combined (maybe the "what's known" and the "remaining gaps" sections?) since we are talking about 150 species. Might this be an option, or should I stick with the template even if it requires some duplication in the individual sections?

Thanks much!

Cheers,  
Chris

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
[101 12th Avenue](#)  
[Room 236](#)  
[Fairbanks, AK 99701](#)  
cell 907-347-4300

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

**From:** [Wendy Loya](#)  
**To:** [Mark Chase](#)  
**Cc:** [Sarena Selbo](#)  
**Subject:** Connecting R7 with NRPC team for Arctic Refuge 1002 science planning  
**Date:** Tuesday, February 13, 2018 11:42:51 AM  
**Attachments:** [Coastal Plain 1002 ID Team FWS\\_020118.xlsx](#)

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Hi Mark,

I am serving as the Alaska regional (R7) point of contact for the FWS in working with BLM and USGS on the oil and gas program for the 1002 area of the Arctic Coastal Plain in response to the Tax Act legislation. Given that FWS's role will be to provide information on the refuge natural resources, this seemed like a good role for the Arctic LCC/Science Applications in collaboration with all the other divisions in the region. I am sure that some of your staff have already been engaged with refuges staff here in Alaska, but I wanted to touch base and make sure as a whole, we understand the expertise in the Natural Resource Program Center and where expertise is relevant, be able to talk about how to engage NRPC staff in the 1002 area program.

I am attaching a list developed by BLM who will lead the NEPA/Planning process for the 1002 area, and you can see who we identified as having regional expertise to work on different subjects, with gaps in Air Quality and other physical sciences, in addition to an overall experience gap in managing oil and gas on the Arctic Refuge.

Let me know what would make sense as a next step, should you and I talk or should we try to get NRPC and Alaska staff together for a discussion? We do have a regional FWS 1002 area coordination meeting every Wednesday from 1-2AK/3-4 MT that we could invite you or members of your team to join for introductions or follow up on specific items.

Thank you,  
Wendy

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

**From:** [Martin, John](#)  
**To:** [Leonard, Paul](#)  
**Cc:** [Wendy Loya](#); [John Trawicki](#)  
**Subject:** Re: 1002 Resource Assessments Process  
**Date:** Tuesday, February 13, 2018 1:32:02 PM

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Paul

Only 4 reports have been received thus far. I'm not sure the google site I set up is the final resting spot for the reports. At this point I am inclined to have the reports sent to me as I will need to edit these for consistency and then route back for further review. Once the reports are finalized, the permanent location for storage and access may be decided.

Thanks

John

On Tue, Feb 13, 2018 at 10:37 AM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Good morning John,

Just wanted to touch base with you and ask about how you're handing the resources assessments that get submitted. Is there a shared folder on google drive or some other method that you're planning to use that will allow Wendy and myself to access the reports after Feb 16 so we can work together to meet our next deadline?

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:** [Wendy Loya](#)  
**Subject:** Re: Need to touch base on how to host meeting today  
**Date:** Tuesday, February 13, 2018 1:38:56 PM

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Hi Wendy,

I don't think we need to do a webinar thing given how much we have to discuss and the size of the group - but maybe you, Stephanie and I could stay after to discuss the MOU and project management plan?

Nicole

**Nicole Hayes**

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

On Tue, Feb 13, 2018 at 11:08 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hey Nicole,

We have staff from Fairbanks and Kodiak joining today's meeting, will everyone from BLM be coming to FWS today? Since you wanted to share a screen, we need a plan for a webinar....

We have an internal vidyo conferencing program (Vidyo) for connecting for webinars, but I will need to get the connection info for anyone outside of FWS...it includes audio, so we can use that instead of the conference bridge you shared if needed.

If easier to chat, call my cell at 227-2942 as I am on a conference call on my office phone 11-12.

Thanks,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Siekaniiec, Greg](#)  
**To:** [Karen Clark](#); [Wendy Loya](#)  
**Subject:** Fwd: Briefing for Polar Bear Research/Studies with Information Needs  
**Date:** Tuesday, February 13, 2018 6:18:57 PM  
**Attachments:** [02.12.18 BP Polar Bear Research-Studies.pdf](#)

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FYI

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

**From:** **Siekaniiec, Greg** <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>  
**Date:** Mon, Feb 12, 2018 at 5:17 PM  
**Subject:** Fwd: Briefing for Polar Bear Research/Studies with Information Needs  
**To:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>

Jim,

Attached is the brief you requested on our polar bear studies and the information needs document we provided several weeks ago. We are placing the brief and supporting document in DTS as well but wanted to get this to you today per your request.

greg

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Brady, Stephanie](#)  
**Cc:** [Wendy Loya](#); [John Trawicki](#)  
**Subject:** Re: Follow-up items from 1-30-18 FWS/BLM Meeting  
**Date:** Wednesday, February 14, 2018 8:43:03 AM

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thank you for the edits!

**Nicole Hayes**

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

On Tue, Feb 13, 2018 at 3:40 PM, Brady, Stephanie <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)> wrote:

Thanks Nicole for the notes and schedule - I have the following edits or clarifications -

**BLM provided an update and items to consider moving forward:**

*Second bullet - It is unclear how the CCP would apply or if it would need to be amended, but FWS will need to do a compatibility determination at some point - the FWS is working through determining whether or not we will need to conduct a compatibility determination - so we are not sure if this will need to be completed*

**Action Items**

*Bullet one - Shelly Jones notes that Janet Jorgensen contacted the Arctic District Office and is working on an amendment to the Arctic Refuge CCP - for a correction - we in Refuges Conservation Planning and Policy are working on determining the next steps for the Arctic CCP - that is in my shop -*

*Bullet 6 - Joanna Fox or Steve Berendzen should provide the potential position description that could work for a liaison in Katovik - not Stephanie Brady;) But I did provide a scope of work for the third party contractor.*

[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

On Fri, Feb 2, 2018 at 10:51 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

Hi All,

It was nice to meet you in person this week!

I am attaching the meeting notes and DRAFT EIS Milestone schedule as promised, however, I cannot overemphasize that the milestones are DRAFT. There have been no firm decisions to date and we know once decisions are made that this schedule will change.

I will send out BLM's Email Address for this project once we get the green light to move forward.

This link will take you to the NPR-A/IAP Record of Decision if you're interested in looking at an example of the lease stipulations and Best Management Practices which are found in Appendix

A: [https://eplanning.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A\\_FINAL\\_ROD\\_2-21-13.pdf](https://eplanning.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf)

Nicole

**Nicole Hayes**

Project Coordinator

Bureau of Land Management

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

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

**From:** [Wendy Loya](#)  
**To:** [Steve Berendzen](#); [Joanna Fox](#); [Stephen Arthur](#); [John Trawicki](#); [Drew Crane](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** USGS research in 1002 area for 2018  
**Date:** Wednesday, February 14, 2018 11:02:38 AM  
**Attachments:** [USGS 1002 ongoing work to W&S.xlsx](#)

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FYI, these are USGS's currently planned/funded activities in or near the Arctic Refuge. Not sure that any of these have potential for combined efficiencies with FWS work, but feel free to contact the PI if you would like further information. The new Beaufort Lagoon Ecosystems LTER site will bring some new research tools to the coast, you can see their research plan here (and which will be summarized in our Resource Assessment for Coastal Resources: <http://ble.lternet.edu/about.html>)

Wendy

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

**From:** [Martin, John](#)  
**To:** [John Trawicki](#); [Wendy Loya](#)  
**Cc:** [Stephanie Brady](#)  
**Subject:** Coastal Plain 1002 Area Service Authored/Co-authored Literature 1980-2017  
**Date:** Wednesday, February 14, 2018 11:53:37 AM  
**Attachments:** [Coastal Plain 1002 Area Resource Assessment BACKGROUND14Feb2018.docx](#)  
[Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018.docx](#)

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Please find attached per your request for review and further action.

Included are a background narrative for the current effort, noting the most likely loss of final or concluding documents from Service archived records for the period 1988-1990 - all that remain are interim or draft mark-up copies. Also attached is the focal listing of coastal plain 1002 area Service authored or co-authored literature. All other literature is captured by USGS syntheses, authored by industry or outside the scope of this request.

If you send this out for further review, any additions should comply with the format established or I can enter these as you wish.

In entering new citations, please refer to the *Scientific Style and Format: the CSE Manual for Authors, Editors, and Publishers* (8th Edition). Retrieval is the goal. If the record is not entered correctly it is not retrievable. Therefore, the data is not available to anyone.

Thanks

**From:** [Wendy Loya](#)  
**To:** [Drew Crane](#)  
**Subject:** RE: USGS research in 1002 area for 2018  
**Date:** Wednesday, February 14, 2018 12:50:38 PM

---

Yes, it can be shared

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

**From:** Crane, Drew [mailto:[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)]  
**Sent:** Wednesday, February 14, 2018 10:49 AM  
**To:** Wendy Loya  
**Subject:** Re: USGS research in 1002 area for 2018

Can these be shared with folks in our programs?

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

On Wed, Feb 14, 2018 at 9:02 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
FYI, these are USGS's currently planned/funded activities in or near the Arctic Refuge. Not sure that any of these have potential for combined efficiencies with FWS work, but feel free to contact the PI if you would like further information. The new Beaufort Lagoon Ecosystems LTER site will bring some new research tools to the coast, you can see their research plan here (and which will be summarized in our Resource Assessment for Coastal Resources: <http://ble.lternet.edu/about.html>)

Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#)  
**Subject:** Accepted: Coastal Plain 1002 USGS-FWS-BLM Weekly Check-In  
**Start:** Friday, February 16, 2018 1:00:00 PM  
**End:** Friday, February 16, 2018 1:30:00 PM  
**Location:** **b5-CIP** ; Participant Passcode **b5-CIP**

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**From:** [Leonard, Paul](#)  
**To:** [John Martin](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** 1002 snow / climate resource assessment  
**Date:** Wednesday, February 14, 2018 12:56:11 PM  
**Attachments:** [Snow Climate Resources.docx.pdf](#)

---

Good morning John,

Please find attached report.

Cheers,  
Paul

--

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

**From:** [Wendy Loya](#)  
**To:** [Richard Lanctot](#)  
**Cc:** [Charles Frost](#); [Eric Taylor](#)  
**Subject:** RE: Draft agenda for today's FWS 1002 internal meeting  
**Date:** Wednesday, February 14, 2018 1:12:08 PM

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Rick,

It is at 1pm today in the Refuges Conference room. Remote participants can connect through Vidyo with that room.

Thank you, see you soon,  
Wendy

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

**From:** Lanctot, Richard [mailto:[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)]  
**Sent:** Wednesday, February 14, 2018 11:10 AM  
**To:** Wendy Loya  
**Cc:** Chuck Frost; Eric Taylor  
**Subject:** Re: Draft agenda for today's FWS 1002 internal meeting

Hi Wendy,

Can you tell me when today's meeting is and where?

Thanks, 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 Wed, Feb 14, 2018 at 10:55 AM, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)> wrote:  
Please ensure MBM is represented at this meeting today. Thanks.

Eric

Sent from my iPhone

Begin forwarded message:

**From:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Date:** February 14, 2018 at 1:49:46 PM CST

**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, John Martin <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)>

**Subject: Draft agenda for today's FWS 1002 internal meeting**

Please make additions here, I apologize that I did not get this out yesterday:

<https://docs.google.com/document/d/1xmo2N2wn5jqdGaORCldQ29gTvWb93TaTJCIL5BqsXm0/edit>

You can save the link, and we'll keep this as a rolling agenda.

Talk to you all soon,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Fox, Joanna](#)  
**Subject:** Re: Draft agenda for today's FWS 1002 internal meeting  
**Date:** Wednesday, February 14, 2018 3:03:26 PM

---

Can you join by Vidyomobile to Refuge conference room?

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 Feb 14, 2018, at 13:01, Fox, Joanna <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)> wrote:

I can't find the call-in information for this call. Can you send it to me?

---

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

Follow us on Facebook!  
[www.facebook.com/arcticonationalwildliferefuge](https://www.facebook.com/arcticonationalwildliferefuge)

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

On Wed, Feb 14, 2018 at 10:49 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Please make additions here, I apologize that I did not get this out yesterday:

<https://docs.google.com/document/d/1xmo2N2wn5jqdGaORCldQ29gTvWb93TaTJCIL5BqsXm0/edit>

You can save the link, and we'll keep this as a rolling agenda.

Talk to you all soon,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Bruce Richmond](#); [Li Erikson](#); [Ann Gibbs](#); [Guy Gelfenbaum](#); [Dunton, Kenneth H](#); [Catherine Coon](#); [Amy Holman](#); [Scott Guyer](#); [Benjamin Jones](#)  
**Subject:** Review Request: FWS led Resource Assessment of Coastal Resources for Arctic Refuge 1002 area  
**Date:** Wednesday, February 14, 2018 5:14:18 PM  
**Attachments:** [1002 area Coastal Resources Assessment DRAFT 021318.docx](#)

---

Dear Coastal Colleagues,

Attached is a word document that I would be grateful for your input on. The FWS is assembling assessments of the state of the science needed to inform oil and gas development on the Arctic Coastal Plain 1002 area of the Arctic National Wildlife Refuge. Attached is an initial draft that I have put together following conversations with some but not all of you. I have tried to capture the key products that would inform decisionmaking, although we do not know how or when exploration and development activities may occur. Thus, I began with a list of possible activities that might occur in or affect the coast and barrier islands. After looking through the Beaufort Sea Lagoons LTER proposal, the BOEM website and other resources provided by USGS, I hope I have captured the existing and needed science. I am impressed, and sure that there are many more studies that are not individually represented here. As I came to the last section, I was not sure what additional studies would be needed, as this seemed comprehensive albeit early in the baseline studies for many of the ecosystem studies. Please add any specific studies you feel are important and we will include those in future research prioritization studies.

I am close to the deadline for this which is Friday the 16<sup>th</sup>, but recognize that is insufficient time for meaningful input. I will submit what I have Friday, but welcome your comments through Thursday next week (February 22<sup>nd</sup>). If calling me is easier, please do so. Otherwise you can use tracked changes to share your feedback with me directly.

Thank you in advance for your time,  
Sincerely,  
Wendy

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

**From:** [Martin, John](#)  
**To:** [Wendy Loya](#); [John Trawicki](#)  
**Cc:** [Stephanie Brady](#)  
**Subject:** Service Literature and Narrative  
**Date:** Wednesday, February 14, 2018 5:17:39 PM  
**Attachments:** [Coastal Plain 1002 Area Resource Assessment BACKGROUND14Feb2018.docx](#)  
[Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018UPDATED.docx](#)

---

Per your request

**From:** [Martin, John](#)  
**To:** [Wendy Loya](#); [John Trawicki](#)  
**Cc:** [Stephanie Brady](#)  
**Subject:** Coastal Plain 1002 Area Literature  
**Date:** Wednesday, February 14, 2018 6:14:13 PM  
**Attachments:** [Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018UPDATED1600.docx](#)

---

final update of the day

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Subject:** FWS Bibliography  
**Date:** Wednesday, February 14, 2018 6:18:04 PM  
**Attachments:** [Coastal Plain 1002 Area FWS Studies BIBLIOGRAPHY 14Feb2018.docx](#)

---

Dear Greg,

Attached is the Bibliography of FWS research in the Arctic Coastal Plain 1002 area and broader landscape when including the 1002 area, in response to the email chain below.

John Martin led this compilation with input and review from Arctic Refuge staff and others. It was difficult to put boundaries on the list, as finding publications often requires knowing who was employed by the FWS when, as the record may not specify the Arctic Refuge. Further, some staff were at FWS for the initiation of studies and are now at USGS, but we have included that work. 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 any questions or concerns,  
Wendy

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

**From:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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

**From:** [Wendy Loya](#)  
**To:** [Christopher Putnam](#)  
**Cc:** [Drew Crane](#); [Paul Leonard](#)  
**Subject:** Snow information from Refuge  
**Date:** Wednesday, February 14, 2018 6:42:35 PM

---

Hi Christopher,

I understand that you are headed up to the Refuge for the FLIR study. If you were able to share observations of snow cover and if you were able to capture images, that would be helpful in guiding our list of recommended studies to understand snowcover in the 1002 area. It might just be anecdotal, but it would be helpful.

Thank you, have a good and safe trip,  
Wendy

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

**From:** [Trawicki, John](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Coastal Plain 1002 Area Literature  
**Date:** Wednesday, February 14, 2018 6:42:57 PM  
**Attachments:** [Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018UPDATED1630.docx](#)

---

Added the last few John had identified

On Wed, Feb 14, 2018 at 4:16 PM, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:  
John ran out of steam there are about 5 more entries to be made, I am working on those now.

On Wed, Feb 14, 2018 at 4:15 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Thank you, John. I appreciate your efforts on this.

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Martin, John [mailto:[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)]  
**Sent:** Wednesday, February 14, 2018 4:14 PM  
**To:** Wendy Loya; John Trawicki  
**Cc:** Stephanie Brady  
**Subject:** Coastal Plain 1002 Area Literature

final update of the day

--

John Trawicki  
Water Resources Branch Chief

0000007144

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

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

--

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

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

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Subject:** FWS Bibliography  
**Date:** Wednesday, February 14, 2018 6:47:17 PM  
**Attachments:** [Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018 FINAL.docx](#)  
**Importance:** High

---

Dear Greg,

Attached is the Bibliography of FWS research in the Arctic Coastal Plain 1002 area and broader landscape when including the 1002 area, in response to the email chain below. This version has a few additional references that came after I sent you an email at 4:18pm today.

John Martin led this compilation with input and review from Arctic Refuge staff and others. It was difficult to put boundaries on the list, as finding publications often requires knowing who was employed by the FWS when, as the record may not specify the Arctic Refuge. Further, some staff were at FWS for the initiation of studies and are now at USGS, but we have included that work. 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 any questions or concerns,  
Wendy

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

**From:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#)  
**Subject:** RE: Coastal Plain 1002 Area Literature  
**Date:** Wednesday, February 14, 2018 6:47:44 PM

---

Got it! Thanks!!!!

Have a good evening, fresh snow...go skiing!

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

**From:** Trawicki, John [mailto:[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)]  
**Sent:** Wednesday, February 14, 2018 4:42 PM  
**To:** Wendy Loya  
**Subject:** Re: Coastal Plain 1002 Area Literature

Added the last few John had identified

On Wed, Feb 14, 2018 at 4:16 PM, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:  
John ran out of steam there are about 5 more entries to be made, I am working on those now.

On Wed, Feb 14, 2018 at 4:15 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Thank you, John. I appreciate your efforts on this.

Wendy

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

**From:** Martin, John [mailto:[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)]  
**Sent:** Wednesday, February 14, 2018 4:14 PM  
**To:** Wendy Loya; John Trawicki  
**Cc:** Stephanie Brady  
**Subject:** Coastal Plain 1002 Area Literature

final update of the day

--

John Trawicki

Water Resources Branch Chief  
National Wildlife Refuge System, Alaska  
U.S. Fish and Wildlife Service  
1011 E. Tudor Road  
Anchorage, AK 99503  
Work: (907) 786-3474  
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"The single biggest problem with communication is the illusion that it has taken place"  
George Bernard Shaw

**From:** [Greg Siekaniec](#)  
**To:** [Wendy Loya](#)  
**Cc:** [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)  
**Subject:** Re: FWS Bibliography  
**Date:** Wednesday, February 14, 2018 11:41:54 PM

---

Thank you Wendy.

I will move this to DC tomorrow. I want to take a bit more of a look just to understand the extent of the studies we are citing. Are these citations in addition to the USGS bibliography or will there some of the same referenced on each?

No need to respond this evening. I'm just catching up a bit. Thank you for helping shepherd this along.

Greg

Sent from my iPhone

On Feb 14, 2018, at 4:47 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Greg,

Attached is the Bibliography of FWS research in the Arctic Coastal Plain 1002 area and broader landscape when including the 1002 area, in response to the email chain below. This version has a few additional references that came after I sent you an email at 4:18pm today.

John Martin led this compilation with input and review from Arctic Refuge staff and others. It was difficult to put boundaries on the list, as finding publications often requires knowing who was employed by the FWS when, as the record may not specify the Arctic Refuge. Further, some staff were at FWS for the initiation of studies and are now at USGS, but we have included that work. 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 any questions or concerns,  
Wendy

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

**From:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST

0000007150

**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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

<Coastal Plain 1002 Area FWS Studies LITERATURE14Feb2018 FINAL.docx>

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#); [John Pearce](#); [Nichelle \(Shelly\) Jones](#); [Marlo Draper](#); [Robert Brumbaugh](#); [Wayne Sveinoha](#); [Serena Sweet](#)  
**Subject:** ID Team Spreadsheet via Google Sheets  
**Date:** Thursday, February 15, 2018 9:54:53 AM

---

Hi All,

I sent out an invitation to edit google sheets this morning with the following message:

BLM has been asked to provide a spreadsheet of the DEDICATED team that would work on the Coastal Plain EIS. The expectation is that the individuals identified are available and this project will be the priority. This is not all inclusive as other agencies may provide a team member based on their jurisdictions by law or specialized expertise once we establish cooperating agencies.

Please note if the individual is best suited as a WRITER (w) or a REVIEWER (r).

We are still working on a Project Management Plan and subsequent MOUs, but this is needed in the interim and by COB 2/20/18.

I want to also add that if you see a job title/resource that is not listed, please add it to the spreadsheet.

If you have any questions, please don't hesitate to ask. As always, thank you very much for the quick turnaround.

Nicole

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

**From:** [Martin, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [John Trawicki](#); [Stephanie Brady](#)  
**Subject:** Re: Draft text to accompany Bibliography  
**Date:** Thursday, February 15, 2018 12:13:05 PM  
**Attachments:** [Coastal Plain 1002 Area FWS Studies LITERATURE15Feb2018FINALUPDATE.docx](#)

---

Wendy and John

Attached is the final, updated literature review for your review and processing.

Please note there is no document marker other than it is 19 pages long and the file header. It is my understanding that IT is developing a site to house Coastal Plain 1002 area data and documents - when accessible I will place a final copy there.

The narrative scope of the literature addresses the scope adequately. If there is a weakness, it is in human dimensions, specifically subsistence species and uses, other than caribou, muskox, and predominant fish species.

Thanks

John

On Thu, Feb 15, 2018 at 9:22 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

HI John and John,

Greg would like 2-3 sentences that describe the scope of the Bibliography, so can you please provide your thoughts on this:

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 website. It is difficult to put boundaries on the list, as finding publications often requires knowing who was employed by the FWS when. There is overlap with the Bibliography for the 1002 area that USGS recently provided and it is inclusive of citations in the Arctic Coastal Plain research summaries by Douglas et al. 2002 and Pearce et al. 2018, due to co-authorship and the transfer of personnel from FWS to USGS in 1996. 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,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** FWS Bibliography  
**Date:** Thursday, February 15, 2018 12:21:59 PM  
**Attachments:** [1002 Arctic Refuge FWS Bibliography 15Feb2018.docx](#)  
**Importance:** High

---

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 Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

Begin forwarded message:

0000007155

**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

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#); [Payer, David](#)  
**Subject:** Near final versions of caribou and other mammal assessments  
**Date:** Thursday, February 15, 2018 1:33:00 PM  
**Attachments:** [1002 Resource Assessment Other Mammals.docx](#)  
[1002 Resouce Assessment Caribou rev.docx](#)

---

If you have any additional comments, please let me know ASAP.

Thanks,  
Steve

Stephen M. Arthur, Ph.D.  
*Supervisory Wildlife Biologist*  
*Arctic National Wildlife Refuge*  
*101 12th Ave., Room 236*  
*Fairbanks, AK 99701*  
*(907)455-1830*

**From:** [Wendy Loya](#)  
**To:** [Christopher Latty](#)  
**Subject:** Annotated Bib for Bird Disturbance, NPRA chapter for Birds Alt A  
**Date:** Thursday, February 15, 2018 2:22:33 PM  
**Attachments:** [annotated bib bird disturbance 2007.pdf](#)  
[Birds Alternative A Env Consequences Vol2 NPR-A Final IAP FEIS.pdf](#)

---

Hi Chris,

Not sure where I got this, but it popped up as I was looking for the Bird chapter in the NPRA FEIS-Integrated Activity Plan (IAP). To reiterate, our goal for wildlife is to: understand which species use which habitats when, and how that might change with industrial development. Being able to identify high-value habitat polygons on a map and disturbance coefficients is one direct way to get there. For avian species, the challenge is knowing if habitat is limited, meaning if a gravel pad goes where a nest once was, will that bird nest somewhere else? That is difficult to assess, whereas for caribou with calves, we know that they do have site fidelity for calving, and if they don't calve there, their calving success goes down. Fortunately in NPRA, calving habitat and nesting habitat overlap for many species, so we can protect an ecosystem when we protect caribou calving habitat. I don't know if that is true in Arctic Refuge in the same way. Measuring disturbance to birds is also difficult, as the recent USGS study showed that people on foot (researchers in this case) had a larger disturbance effect on geese than vehicles at Pt. Lonely.

I am also attaching the chapter from the NPRA FEIS on birds for Alternative A. There were 5 alternatives in the end, and they chose B-2 which was more protective in some ways than Alternative A. It gets complicated to understand the development footprint assumptions and leasing stipulations, but I think you can get the gist of how they tried to evaluate impacts to birds and how studies from other areas are used to determine the impacts.

I am glad you have Ted as a resource for thinking ahead!! I am familiar with the NPRA plan from a previous position and also working with that and other plans with colleagues when I worked in Greenland to help set up an environmental impact expert group, so while I am not as well-spoken as Ted, I hope I can help lead us to a good product with a science plan for the near term and long term.

Cheers,  
Wendy

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

**From:** [Martin, John](#)  
**To:** [Crane, Drew](#)  
**Cc:** [John Trawicki](#); [Wendy Loya](#); [Randy Brown](#)  
**Subject:** Re: Links to other fish studies  
**Date:** Thursday, February 15, 2018 3:04:46 PM

---

Drew

Thanks for this information. The bibliography has left my control and is now being routed. Regardless, this information will be integrated for future reference.

Thanks again - and too Randy.

John

On Thu, Feb 15, 2018 at 12:46 PM, Crane, Drew <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)> wrote:

Hi John,

I'm not sure of the best way to deal with so many links since they appear to reference individual chapters of a single report. The very top link does take one to the site where all these live. Perhaps that is good enough??

Thanks

Drew

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

**From:** **Brown, Randy** <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>  
**Date:** Thu, Feb 15, 2018 at 12:23 PM  
**Subject:** Links to other fish studies  
**To:** "Crane, Drew" <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>

Hi Drew,

Here are some links to USFWS Fisheries studies associated with the Arctic NWR. The first link is to the USFWS Alaska Fisheries reports site, which lists all of the individual report titles and links for all refuges and all fish offices. The individual report links below are the once specific to the north side of the Arctic NWR. The links all worked for me, but you may have to copy and paste the links into your browser to make them work, I don't know.

Give a shout if you have any questions,  
Randy

<https://www.fws.gov/alaska/fisheries/fish/reports.htm>

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_01.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_01.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_02.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_02.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_04.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_04.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_07.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_07.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1984\\_01.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1984_01.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1984\\_02.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1984_02.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_01.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_01.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_02.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_02.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_03.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_03.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_04.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_04.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_05.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_05.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1986\\_06.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1986_06.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1992\\_2A.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1992_2A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1992\\_2B.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1992_2B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1992\\_3A.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1992_3A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1992\\_3B.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1992_3B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1994\\_01A.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1994_01A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Progress\\_Reports/p\\_1994\\_01B.pdf](https://www.fws.gov/alaska/fisheries/fish/Progress_Reports/p_1994_01B.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1988\\_03.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1988_03.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1989\\_04.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1989_04.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1990\\_06.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1990_06.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1990\\_07.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1990_07.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1990\\_08.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1990_08.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1991\\_10.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1991_10.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1989\\_11.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1989_11.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1992\\_17.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1992_17.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1994\\_27.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1994_27.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch1.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch1.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch2A.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch2A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch2B.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch2B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch3A.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch3A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch3B.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch3B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch4A.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch4A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch4B.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch4B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch5A.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch5A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch5B.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch5B.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch6A.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch6A.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_28ch6B.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_28ch6B.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1995\\_30.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1995_30.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_1998\\_43.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_1998_43.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_2005\\_84.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_2005_84.pdf)  
[https://www.fws.gov/alaska/fisheries/fish/Technical\\_Reports/t\\_2008\\_101.pdf](https://www.fws.gov/alaska/fisheries/fish/Technical_Reports/t_2008_101.pdf)

[https://www.fws.gov/alaska/fisheries/fish/Data\\_Series/d\\_2006\\_10.pdf](https://www.fws.gov/alaska/fisheries/fish/Data_Series/d_2006_10.pdf)

--

Randy J. Brown  
Fishery Biologist  
U.S. Fish and Wildlife Service  
[101 12th Ave., Room 110](https://www.fws.gov/alaska/fisheries/fish/Data_Series/d_2006_10.pdf)  
[Fairbanks, Alaska 99701](https://www.fws.gov/alaska/fisheries/fish/Data_Series/d_2006_10.pdf)

Phone: (907) 456-0295

E-mail: <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>

**From:** [Wendy Loya](#)  
**To:** [John Martin](#)  
**Subject:** RE: Drive Location for uploading 1002 Arctic Refuge Resource Assessments  
**Date:** Thursday, February 15, 2018 3:31:55 PM

---

Thanks for the heads up! I have asked the author to upload a word doc and added Word not PDF to drive folder title.

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

**From:** Martin, John [mailto:[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)]  
**Sent:** Thursday, February 15, 2018 1:24 PM  
**To:** Wendy Loya  
**Cc:** John Trawicki; Stephanie Brady  
**Subject:** Re: Drive Location for uploading 1002 Arctic Refuge Resource Assessments

Done

Be advised that one of the reports is a pdf

On Thu, Feb 15, 2018 at 12:35 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Dear Resource Assessment Team Leads:

We have established a shared folder on the R7 Common Drive for the 1002 Arctic Refuge Program (Oil and Gas). It should look like this, and you can use FWS Tools to go in your computer menu to get to a link called Drives, which leads to a link to Remap Drives and Printers. Let me or John Trawicki know if you are unable to find the folder.

**r7common(\\[ifw7rofs1.fws.doi.net](#))(P:)\1002ArcticRefuge\1-Working\Resource Assessments\_Originals**

Everyone in the region should have read/write access to this folder, and I would like to request that you please save a copy of your final document there in addition to emailing it to John Martin. If you have already submitted, John Martin will save the copy he has received there today. This will allow us to work with these immediately and keep common record of the effort.

Thank you,  
Wendy

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

**From:** [Siekaniec, Greg](#)  
**To:** [Jim Kurth](#)  
**Cc:** [Karen Clark](#); [Wendy Loya](#)  
**Subject:** Fwd: Bibliography  
**Date:** Thursday, February 15, 2018 4:30:21 PM  
**Attachments:** [1002 Arctic Refuge FWS Bibliography 15Feb2018 \(2\).docx](#)

---

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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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.

0000007164

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

**From:** [Coon, Catherine](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Possible Oil and gas activities in coastal areas  
**Date:** Thursday, February 15, 2018 6:44:52 PM

---

Hello,

I am free until noon ( on and off) shall we just try to call each other or say 9am?

Thanks!!

Cathy

Cathy Coon  
Chief, Environmental Sciences Management  
Bureau of Ocean Energy Management  
U.S. Department of the Interior  
3801 Centerpoint Drive, Suite 500  
Anchorage, AK 99503-5823  
907-334-5245

On Thu, Feb 15, 2018 at 3:18 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Cathy,

Thank you, I had a chance to talk with Warren today and he lead me to ESPIS and an useful report on landfast sea ice and leads. If you have time to chat for 15-30 min tomorrow, I can explain what we are doing with regards to the 1002 area of the Arctic National Wildlife Refuge and see if you have any input to the report, as well as update you on what is happening with the Arctic LCC. If you are too busy, I understand. I am busy 9-12 and 1-130pm.

Thank you, I hope you are well.

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Coon, Catherine [mailto:[catherine.coon@boem.gov](mailto:catherine.coon@boem.gov)]  
**Sent:** Thursday, February 15, 2018 12:58 PM  
**To:** Wendy Loya  
**Subject:** Re: Possible Oil and gas activities in coastal areas

Hi Wendy

I was traveling yesterday and didn't see this, I forwarded to Warren Horowitz today and asked him to give you a call as he would be more knowledgeable on several of those items.

I can catch up tomorrow?

Cathy

Cathy Coon

Chief, Environmental Sciences Management

Bureau of Ocean Energy Management

U.S. Department of the Interior

[3801 Centerpoint Drive, Suite 500](#)

[Anchorage, AK 99503-5823](#)

907-334-5245

On Wed, Feb 14, 2018 at 11:19 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Cathy,

I am working on an assessment of the science needed to inform oil and gas activities in the Arctic Refuge 1002 area, and working on the Coastal Resources assessment. Would you have time to talk with me today before 1pm or between 2-330pm about the types of activities that we should consider? If not today, do you have time tomorrow or time to look at what I have below and send a reply? Thank you in advance.

There are not any activities planned yet, of course, so it is hard to know what will happen and when, but in looking at other EIS's for the north slope, I am came up with some possible activities:

**What do we need to know and why regarding subjects?** Decisions affecting/involving coastal resources could include the following resource development issues: sea ice roads, sea ice airstrips, barge access, coastal infrastructure (e.g. pads, pipelines, docks), water treatment (desalinization input/output; other discharges), offshore gravel resources.

To address these issues, we need to understand:

1. Sea ice dynamics
2. Coastal erosion
3. Coastal geomorphology
4. Coastal bathymetry
5. Coastal habitats
6. Coastal water quality and chemistry
7. Barrier Island morphology/erosion

I am close to a draft to share with what the current information we have and what our needs are, but want to make sure I have the starting questions/points right. I am looking through the new LTER proposal, and that will be a great asset for understanding the Refuge Coastal Lagoons, and will welcome any additions from BOEM environmental studies that are relevant to the Refuge coast.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Arthur, Stephen](#)  
**To:** [Martin, John](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Caribou and terrestrial mammals assessments  
**Date:** Thursday, February 15, 2018 9:03:47 PM  
**Attachments:** [1002 Resource Assessment Other Mammals Final.docx](#)  
[1002 Resouce Assessment Caribou Final.docx](#)

---

John,

Attached are the resource assessments for caribou and other terrestrial mammals. Let me know if you have any 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*

**From:** [Matz, Angela](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Drive Location for uploading 1002 Arctic Refuge Resource Assessments  
**Date:** Friday, February 16, 2018 2:09:54 PM  
**Attachments:** [Air Quality REPORTING TEMPLATE.docx](#)

---

Wendy, I can't find the folder even after refreshing.

I just got a new computer and things are wacky. Here's the Air Quality one for you to upload.  
Thanks, angela

On Thu, Feb 15, 2018 at 12:35 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Resource Assessment Team Leads:

We have established a shared folder on the R7 Common Drive for the 1002 Arctic Refuge Program (Oil and Gas). It should look like this, and you can use FWS Tools to go in your computer menu to get to a link called Drives, which leads to a link to Remap Drives and Printers. Let me or John Trawicki know if you are unable to find the folder.

**r7common(\ifw7rofs1.fws.doi.net)(P:)\1002ArcticRefuge\1-Working\Resource Assessments\_Originals**

Everyone in the region should have read/write access to this folder, and I would like to request that you please save a copy of your final document there in addition to emailing it to John Martin. If you have already submitted, John Martin will save the copy he has received there today. This will allow us to work with these immediately and keep common record of the effort.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Angela Matz, Ph.D.  
U.S. Fish and Wildlife Service  
4700 BLM Road Anchorage, AK 99507-2546  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Wendy Loya](#)  
**To:** [Matz, Angela](#)  
**Subject:** Re: Drive Location for uploading 1002 Arctic Refuge Resource Assessments  
**Date:** Friday, February 16, 2018 2:11:33 PM

---

Got it! Thanks and have a great weekend.

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 Feb 16, 2018, at 12:09, Matz, Angela <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)> wrote:

Wendy, I can't find the folder even after refreshing.

I just got a new computer and things are wacky. Here's the Air Quality one for you to upload.

Thanks, angela

On Thu, Feb 15, 2018 at 12:35 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Resource Assessment Team Leads:

We have established a shared folder on the R7 Common Drive for the 1002 Arctic Refuge Program (Oil and Gas). It should look like this, and you can use FWS Tools to go in your computer menu to get to a link called Drives, which leads to a link to Remap Drives and Printers. Let me or John Trawicki know if you are unable to find the folder.

**[r7common\(\ifw7rofs1.fws.doi.net\)\(P:\)\1002ArcticRefuge\1-Working\Resource Assessments\\_Originals](#)**

Everyone in the region should have read/write access to this folder, and I would like to request that you please save a copy of your final document there in addition to emailing it to John Martin. If you have already submitted, John Martin will save the copy he has received there today. This will allow us to work with these immediately and keep common record of the effort.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Angela Matz, Ph.D.  
U.S. Fish and Wildlife Service  
4700 BLM Road Anchorage, AK 99507-2546  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

<Air Quality REPORTING TEMPLATE.docx>

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#)  
**Cc:** [angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
**Subject:** Re: Do you have copy of presentation?  
**Date:** Friday, February 16, 2018 2:55:34 PM  
**Attachments:** [Final Seismic slideshow2 Feb 2018.pdf](#)

---

I am sorry I didn't get this to you earlier. Please let me know if you need anything else.  
Nicole

**Nicole Hayes**

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

On Fri, Feb 16, 2018 at 10:33 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Nicole, if you have a copy of the presentation during the presentation, can you please forward to Angela, ccc'ed here? I know we will get a copy after and I can distribute that to all.

Thank you!

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)

Begin forwarded message:

**From:** "Matz, Angela" <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)>  
**Date:** February 16, 2018 at 10:21:17 AKST  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** **Re: Clarification: BLM Arctic Seismic Process - Follow-up to 1/19 Workshop Presentation**

Wendy, I can't get into Webex. Could you get the slides and forward them please?

On Fri, Feb 16, 2018 at 8:31 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi again everyone,

I have heard that the information in my email did not come across clearly, I apologize and will be sure not to use Outlook to forward invitations. Here is what I wanted to share with you:

A reminder about the Arctic seismic presentation today at 10am-12pm AK time. The presentation will be broadcast as a webinar from BLM Fairbanks, and you can join online or in person at BLM in Anchorage downtown (Kodiak Room on 4<sup>th</sup> floor), in the Science Applications room at the FWS Regional Office or in the Refuges Conference Room in Fairbanks.

Bridge **b5-CIP** , Passcode **b5-CIP**

Webex: **b5-CIP**

Thank you for your feedback,

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)

--

*Angela Matz, Ph.D.*  
*U.S. Fish and Wildlife Service*  
*4700 BLM Road Anchorage, AK 99507-2546*  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Wendy Loya](#)  
**To:** [Drew Crane](#)  
**Subject:** RE: DUE Tuesday 2/20: FWS Staff Commitment to 1002 Arctic Refuge EIS development  
**Date:** Friday, February 16, 2018 3:00:12 PM

---

Sounds good, thank you.

Have a good weekend!  
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:** Crane, Drew [mailto:[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)]  
**Sent:** Friday, February 16, 2018 12:58 PM  
**To:** Wendy Loya  
**Subject:** Re: DUE Tuesday 2/20: FWS Staff Commitment to 1002 Arctic Refuge EIS development

Hi Wendy,

I chatted with Mary this morning and made 2 changes based on our conversation. I removed both Susie Miller and Julie Michaleson from the ES staff commitment. Also, Patrick indicated that it may not always be Ryan, but someone from the polar bear program will help should Ryan not be available.

Thanks,

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

On Thu, Feb 15, 2018 at 11:21 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Dear FWS Program POCs for the 1002 Arctic Refuge Oil and Gas Program (John T, Eric T, Steve B, Joanna, Drew):

Below is a link to the spreadsheet you submitted on behalf of your program for FWS staff that will help with the 1002 Arctic Refuge Oil and Gas Leasing EIS. BLM has stated that it is time to confirm commitments, so please ensure concurrence with your program leadership (ARD, Project leaders). If you see a job title/resource that is not listed, please add it to the spreadsheet.

<https://docs.google.com/spreadsheets/d/1yhwsIu6zS0RI->

[L2yd2Bc38y0G9y501sRIMCR5PmSgsw/edit?usp=sharing](https://www.fishbase.org/species/L2yd2Bc38y0G9y501sRIMCR5PmSgsw/edit?usp=sharing)

The expectation is that the individuals identified are available and this project will be the priority. This is not all-inclusive, as other agencies may provide a team member based on their jurisdictions by law or specialized expertise once we establish cooperating agencies. We do not have to fill in every line, but where we have the expertise we should step up and ensure our knowledge guides the process.

Please note if the individual is best suited as a WRITER (w) or a REVIEWER (r).

**This is needed by COB 2/20/18.** Remember that we have an early out Friday and Monday is a holiday.

If you have concerns or questions, please let me know and I can answer or seek clarification from BLM.

Thank you,  
Wendy

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

**From:** [Matz, Angela](#)  
**To:** [Wendy Loya](#); [John Martin](#)  
**Subject:** Contaminants Reporting Template attached  
**Date:** Friday, February 16, 2018 3:07:30 PM  
**Attachments:** [Contaminants REPORTING TEMPLATE.docx](#)

---

Sorry, still can't access the folder you requested we put these in.

Thanks!

Angela

--

Angela Matz, Ph.D.  
U.S. Fish and Wildlife Service  
4700 BLM Road Anchorage, AK 99507-2546  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#); [Nicole Hayes](#)  
**Subject:** FWS Bibliography  
**Date:** Friday, February 16, 2018 3:34:19 PM  
**Attachments:** [1002 Arctic Refuge FWS Bibliography 15Feb2018.docx](#)

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John and Nicole,

Attached is an updated Bibliography of FWS research in the Arctic Coastal Plain 1002 area and broader Arctic Landscape, in response a request from FWS HQ.

John Martin led compilation of the bibliography with input and review from Arctic Refuge staff, Migratory Birds and many others. It is difficult to put boundaries on a FWS bibliography, as finding publications often requires knowing who was employed by the FWS when. 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,  
Arctic Program Coordinator, Office of Science Applications  
US Fish and Wildlife Service  
Anchorage, Alaska  
907.786.3532 (office)  
907.227.2942 (mobile)

**From:** [Miller, Mark](#)  
**To:** [Wendy M. Loya, PhD](#)  
**Cc:** [Miriam \(Nicole\) Hayes](#); [Alfredo Soto](#); [David Payer](#); [Davyd Betchkal](#); [Roger Kaye](#); [Tracy Fischbach](#); [Kenneth \(Alan\) Peck](#); [Fritz, Stacey](#); [Goodwin, Randy](#); [Todd Atwood](#)  
**Subject:** 1002 resource information assessment for Acoustic Environment  
**Date:** Friday, February 16, 2018 4:01:33 PM  
**Attachments:** [1002 Acoustic Environment 2018 0216.docx](#)

---

Wendy -

Here's our team's contribution for the Acoustic Environment.

Mark

---

**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

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"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*

**From:** [Jorgenson, Janet](#)  
**To:** [Wendy Loya](#); [Stephen Arthur](#); [Joshua Rose](#); [Louise Smith](#)  
**Subject:** VegPermafrostSoilsWetlands 1002 resource assessment attached  
**Date:** Friday, February 16, 2018 4:02:46 PM  
**Attachments:** [1002VegSoilsPermafrostWetlandsResourceAssessment2-16-2018.docx](#)

---

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Wendy Loya](#)  
**To:** [Janet Jorgenson](#)  
**Subject:** RE: VegPermafrostSoilsWetlands 1002 resource assessment attached  
**Date:** Friday, February 16, 2018 4:04:46 PM

---

Thanks Janet, I saved it into the r7 common folder for the 1002 program.

Have a great weekend,  
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:** Jorgenson, Janet [mailto:[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)]  
**Sent:** Friday, February 16, 2018 2:03 PM  
**To:** Wendy Loya; Stephen Arthur; Joshua Rose; Louise Smith  
**Subject:** VegPermafrostSoilsWetlands 1002 resource assessment attached

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Moore, John D](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Reep, Brien E](#)  
**Subject:** RE: Question about coastal access for Pt. Thompson  
**Date:** Friday, February 16, 2018 10:01:22 PM

---

Wendy,

Many thanks for your note!

I've copied in our SSHE Manager, Brien Reep, who would welcome the opportunity for discussion. He can also draw on other members of our team as / if needed.

Best,

John

**John D. Moore**  
Senior Advisor  
Public and Government Affairs  
ExxonMobil Alaska

+1-907-564-3739 Office  
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[john.d.moore@exxonmobil.com](mailto:john.d.moore@exxonmobil.com) Email

Visit [ExxonMobil's Energy Factor](#), an online resource covering the cutting-edge technology and innovations that are helping to meet tomorrow's energy needs.

---

**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Thursday, February 15, 2018 2:40 PM  
**To:** Moore, John D <[john.d.moore@exxonmobil.com](mailto:john.d.moore@exxonmobil.com)>  
**Subject:** Question about coastal access for Pt. Thompson

Hi John,

We met at the Meaningful Engagement of Indigenous People within the EIA workshop in Utqiagvik. I was wondering if I could talk with you or one of your colleagues about logistics involving coastal access for Pt. Thompson as we prepare to understand how exploration and leasing might occur in the 1002 area of the Arctic National Wildlife Refuge? The questions I have could be summarized as "How did Exxon physically access Pt. Thompson during exploration and how does it logistically support operations?" I have looked at the EIS and see that the project included using sea ice roads, sea ice airstrips and coastal infrastructure (pads, docks). I would imagine barging is a large part of continued operations, so it would be helpful to understand how that is carried out.

It would be very helpful to have a chance to talk with someone for 15-30 min.

Thank you.  
Best regards,  
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:** [Jones, Benjamin](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Review Request: FWS led Resource Assessment of Coastal Resources for Arctic Refuge 1002 area  
**Date:** Saturday, February 17, 2018 9:32:45 AM

---

Hi Wendy,

Sorry yesterday got away from me. I'll call you on Monday to help where I can.

Thanks,

Ben

On Fri, Feb 16, 2018 at 8:17 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hey Ben,

I have meetings from 9-12 today and 1-130, but if you have thoughts on studies to include to help understand coastal resources in terms of habitat and industrial access, give a call in between! Or have a look at that document I sent and jot your ideas or comments in track-changes.

Thanks!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Jones, Benjamin [mailto:[bjones@usgs.gov](mailto:bjones@usgs.gov)]

**Sent:** Thursday, February 15, 2018 6:56 PM

**To:** Wendy Loya

**Subject:** Re: Review Request: FWS led Resource Assessment of Coastal Resources for Arctic Refuge 1002 area

Hi Wendy,

This is really good. Can we chat tomorrow to see what I can do help? Sorry was at meetings the last two days.

Ben

On Wed, Feb 14, 2018 at 3:14 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Coastal Colleagues,

Attached is a word document that I would be grateful for your input on. The FWS is assembling assessments of the state of the science needed to inform oil and gas development on the Arctic Coastal Plain 1002 area of the Arctic National Wildlife Refuge. Attached is an initial draft that I have put together following conversations with some but not all of you. I have tried to capture the key products that would inform decisionmaking, although we do not know how or when exploration and development activities may occur. Thus, I began with a list of possible activities that might occur in or affect the coast and barrier islands. After looking through the Beaufort Sea Lagoons LTER proposal, the BOEM website and other resources provided by USGS, I hope I have captured the existing and needed science. I am impressed, and sure that there are many more studies that are not individually represented here. As I came to the last section, I was not sure what additional studies would be needed, as this seemed comprehensive albeit early in the baseline studies for many of the ecosystem studies. Please add any specific studies you feel are important and we will include those in future research prioritization studies.

I am close to the deadline for this which is Friday the 16<sup>th</sup>, but recognize that is insufficient time for meaningful input. I will submit what I have Friday, but welcome your comments through Thursday next week (February 22<sup>nd</sup>). If calling me is easier, please do so. Otherwise you can use tracked changes to share your feedback with me directly.

Thank you in advance for your time,

Sincerely,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Benjamin M. Jones, Ph.D.

Research Geographer

U.S. Geological Survey

Alaska Science Center

[4210 University Drive](#)

[Anchorage, AK 99508](#)

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[bjones@usgs.gov](mailto:bjones@usgs.gov)

[USGS Biopage](#)

[Google Scholar](#)

[ORCID](#)

--

Benjamin M. Jones, Ph.D.

Research Geographer

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[bjones@usgs.gov](mailto:bjones@usgs.gov)  
[USGS Biopage](#)  
[Google Scholar](#)  
[ORCID](#)

**From:** [Latty, Christopher](#)  
**To:** [Wendy Loya](#); [John Martin](#)  
**Subject:** Re: Drive Location for uploading 1002 Arctic Refuge Resource Assessments  
**Date:** Sunday, February 18, 2018 12:28:44 AM  
**Attachments:** [REPORTING TEMPLATE Birds 2-16-18.docx](#)

---

Hi Wendy,

I'll check-in with Priscilla next week to get access sorted, as the drive still doesn't show up on my machine. As requested - please find the Resource Assessment for birds attached.

Cheers  
Chris

On Sat, Feb 17, 2018 at 7:46 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

No worries, just email it to me and John M and I can save to folder. If the drive doesn't show up, you can ask Priscilla next week. Have a good weekend.

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 Feb 16, 2018, at 22:21, Latty, Christopher <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)> wrote:

Hi Wendy,

Apparently I should have tried mapping this sooner, as it doesn't seem to be working for me. I tried the guidance above with no luck. I'll be back in the office tomorrow and can see if I can get it sorted, but please let me know if others in Fairbanks have had issues.

Cheers  
Chris

On Thu, Feb 15, 2018 at 12:35 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Resource Assessment Team Leads:

We have established a shared folder on the R7 Common Drive for the 1002 Arctic Refuge Program (Oil and Gas). It should look like this, and you can use FWS Tools to go in your computer menu to get to a link called Drives, which leads to a link to Remap Drives and Printers. Let me or John Trawicki know if you are unable to find the folder.

**r7common(\\ifw7rofs1.fws.doi.net)(P:)\1002ArcticRefuge\1-Working\Resource Assessments\_Originals**

Everyone in the region should have read/write access to this folder, and I would like to request that you please save a copy of your final document there in addition to emailing it to John Martin. If you have already submitted, John Martin will save the copy he has received there today. This will allow us to work with these immediately and keep common record of the effort.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
[101 12th Avenue](#)  
[Room 236](#)  
[Fairbanks, AK 99701](#)  
cell 907-347-4300

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR

101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

**From:** [Chase, Mark](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Tamara McCandless](#)  
**Subject:** Re: Connecting R7 with NRPC team for Arctic Refuge 1002 science planning  
**Date:** Tuesday, February 20, 2018 9:42:09 AM

---

Good Morning, Wendy!

So here are some suggestions for your Development Team spreadsheet.

Patrick O'Dell is a Petroleum Engineer in Headquarters, stationed in Denver. While Pat does not work for me, I am sure he would be a valuable resource for your team in this priority work (Petroleum Resources Resource Area). His supervisor is Shannon Smith, a Deputy Division Chief in DC.

For the Air Quality box, Tim Allen, Catherine Collins, and Jill Webster are all potential resources - I know Tim and likely the others are already involved. Tamara McCandless is their direct supervisor. (they are part of the NRPC)

Please feel free to reach out as necessary, and we will try and provide, or at least connect you, with the right folks! I think it would be good to invite Tamara and her folks to sit in on the Wednesday coordination calls, if they are not already.

Good Luck!

Mark

On Tue, Feb 13, 2018 at 11:42 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Mark,

I am serving as the Alaska regional (R7) point of contact for the FWS in working with BLM and USGS on the oil and gas program for the 1002 area of the Arctic Coastal Plain in response to the Tax Act legislation. Given that FWS's role will be to provide information on the refuge natural resources, this seemed like a good role for the Arctic LCC/Science Applications in collaboration with all the other divisions in the region. I am sure that some of your staff have already been engaged with refuges staff here in Alaska, but I wanted to touch base and make sure as a whole, we understand the expertise in the Natural Resource Program Center and where expertise is relevant, be able to talk about how to engage NRPC staff in the 1002 area program.

I am attaching a list developed by BLM who will lead the NEPA/Planning process for the 1002 area, and you can see who we identified as having regional expertise to work on different subjects, with gaps in Air Quality and other physical sciences, in addition to an overall experience gap in managing oil and gas on the Arctic Refuge.

Let me know what would make sense as a next step, should you and I talk or should we try to get NRPC and Alaska staff together for a discussion? We do have a regional FWS 1002 area coordination meeting every Wednesday from 1-2AK/3-4 MT that we could invite you or members of your team to join for introductions or follow up on specific items.

Thank you,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Brewer, John](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: shapefile of ANWR 1002 area  
**Date:** Tuesday, February 20, 2018 12:00:41 PM

---

Wendy,

Which 1002/Coastal Plain boundary are you wanting Chris to have?

Thanks,

John Brewer  
(907) 786-3462

On Mon, Feb 19, 2018 at 5:08 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

John,

Can you share a GIS shapefile of the 1002 area with Dr. Chris Arp at UAF?

Chris,

Funny you should ask this, it turns out not to be that straightforward ☺

I am copying John Brewer at FWS who was recently asked to share said shapefile with BLM. I assume a general outline is sufficient without needing to be accuracy at the plat level.

Thanks,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Christopher Arp [mailto:[cdarp@alaska.edu](mailto:cdarp@alaska.edu)]  
**Sent:** Monday, February 19, 2018 5:04 PM  
**To:** Joshua Bradley  
**Cc:** Wendy Loya; Burkart, Greta  
**Subject:** shapefile of ANWR 1002 area

Hi Josh,

I'm wondering if you have a shapefile of the 1002 area you could share? Thought I could find one easy enough on web, but have found it yet.

Thanks,

Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: 907-474-2783  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)

<http://ine.uaf.edu/werc/people/chris-arp/>

<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>

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**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**To:** [John Trawick](#); [Drew Crane](#); [Eric Taylor](#); [Paul Leonard](#); [Stephen Arthur](#); [Steve Berendzen](#); [Joanna Fox](#)  
**Subject:** Resource Assessment next steps

---

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject, Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:

**b5-CIP** passcode: **b5-CIP**

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Nichelle \(Shelly\) Jones](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: BMP overview/training for FWS  
**Date:** Tuesday, February 20, 2018 1:25:59 PM

---

Thanks Wendy. I will call you on Thursday at 9 am. I am talking to a facilitator today about some ideas I had for this workshop and hopefully she will give me some suggestions that I can pass on when we talk.

Sent from my iPad

On Feb 20, 2018, at 8:31 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Shelly,

I wanted to follow up with you regarding organizing a workshop with your staff at BLM Arctic Field office and our staff at FWS Arctic Refuge and other divisions to go through BMPs/Stipulations/ROPs that are used in NPRA to protect sensitive resources where needed. Do you have time to chat this week? I have good availability if you can pull my calendar, it looks like you are busy today and tomorrow, so maybe Thursday at 9am or 11 am?

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](#)  
**Cc:** [Socheata Lor](#); [Doug Damberg](#); [Steve Berendzen](#); [Joanna Fox](#); [Eric Taylor](#)  
**Subject:** Update: FWS Staff commitment to EIS writing due to BLM today  
**Date:** Tuesday, February 20, 2018 2:48:09 PM  
**Attachments:** [ID Team\\_021418.xlsx](#)

---

Hi Greg and Karen,

I have been working with FWS divisions to finalize the list of FWS staff that will commit to writing or reviewing sections of the 1002 Area EIS for both the draft and final stages. The list is attached for your information. Where there are gaps, BLM has stated they will seek contractors.

As you are aware, we are sorting out the roles of staff with regards to the Birds section. If all staff are just reviewers, we are asking BLM to find a contractor.

I have also contacted Tom Doolittle in OSM to see if they have staff that can review subsistence or cultural resources sections.

Let me know if you have any concerns before I send to BLM at COB today.

Thank you,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Joanna Fox](#)  
**Cc:** [Socheata Lor](#); [Steve Berendzen](#); [Doug Damberg](#)  
**Subject:** RE: Need to confirm Chris Latty's role in EIS team  
**Date:** Tuesday, February 20, 2018 2:52:56 PM

---

Thank you for the clarification, I will update the table to reflect they are both Writers and Reviewers.

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:** Fox, Joanna [mailto:[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 12:51 PM  
**To:** Loya, Wendy  
**Cc:** Socheata Lor; Steve Berendzen; Doug Damberg  
**Subject:** Re: Need to confirm Chris Latty's role in EIS team

We identified Chris and Roy and individuals on our staff who can be writers and reviewers, and we would like them to share that role if we are required to provide a lead for writing the avian resource section. Chris will most certainly do the writing on migratory waterfowl, but would have to look to others to provide content on the other avian groups (shorebirds, passerines, raptors, and endangered species).

---

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

Follow us on Facebook!  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

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

On Tue, Feb 20, 2018 at 12:35 PM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi Everyone,

I am finalizing the list about which staff will be writers and reviewers for the 1002 area EIS. With regards to Chris Latty, we have gone back and forth on his time commitment. Currently he is listed as a Reviewer and not a writer. Is that the final answer or can we count on Chris to do some of all of the writing?

Thank you,  
Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.277.2942 (mobile)

**From:** [Burkart, Greta](#)  
**To:** [Christopher Arp](#)  
**Cc:** [Wendy Loya](#); [John Brewer](#); [Joshua Bradley](#)  
**Subject:** Re: shapefile of ANWR 1002 area  
**Date:** Tuesday, February 20, 2018 2:54:50 PM  
**Attachments:** [ArcticNWR.gdb.zip](#)

---

Hi Chris,

The attached geodatabase has the coastal plain, 1002 area boundary. I can't attest to the accuracy, but it meets my mapping needs.

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Tue, Feb 20, 2018 at 9:42 AM, Christopher Arp <[cdarp@alaska.edu](mailto:cdarp@alaska.edu)> wrote:

Hi Wendy and John,

Yes, just an outline of 1002 area is all I need. I making a basic slide to show the need for understanding winter water supply for Bill Schnabel to take to DC with him next week. I can share it with you if you like once completed.

Thanks,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: 907-474-2783  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)  
<http://ine.uaf.edu/werc/people/chris-arp/>  
<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>  
-----

On Mon, Feb 19, 2018 at 5:08 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

John,

Can you share a GIS shapefile of the 1002 area with Dr. Chris Arp at UAF?

Chris,

Funny you should ask this, it turns out not to be that straightforward 😊

I am copying John Brewer at FWS who was recently asked to share said shapefile with BLM. I assume a general outline is sufficient without needing to be accuracy at the plat level.

Thanks,

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)

**From:** Christopher Arp [mailto:[cdarp@alaska.edu](mailto:cdarp@alaska.edu)]

**Sent:** Monday, February 19, 2018 5:04 PM

**To:** Joshua Bradley

**Cc:** Wendy Loya; Burkart, Greta

**Subject:** shapefile of ANWR 1002 area

Hi Josh,

I'm wondering if you have a shapefile of the 1002 area you could share? Thought I could

find one easy enough on web, but have found it yet.

Thanks,

Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: [907-474-2783](tel:907-474-2783)  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)

<http://ine.uaf.edu/werc/people/chris-arp/>

<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>  
-----

**From:** [Google Calendar](#) on behalf of [John Trawick](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Resource Assessment next steps  
**Attachments:** [invite.ics](#)

---

John Trawick  
has accepted this invitation.

Resource Assessment next steps

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge/Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject, Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:

[867-6105](#) passcode: [867-6105](#)

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,  
Wendy

When

Tue Feb 20, 2018 3:15pm – 4pm Alaska Time

Where

BLM Kodiak room after 2-3pm meeting or conference line (map <[https://maps.google.com/maps?q=BLM Kodiak room after 2-3pm meeting or conference line](https://maps.google.com/maps?q=BLM%20Kodiak%20room)&hl=en>)

Video call

[867-6105](#)

Calendar  
[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
Who  
• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
- organizer  
• Joanna Fox  
• Stephen Arthur  
• Paul Leonard  
• Steve Berendzen  
• Drew Crane  
• Eric Taylor  
• 'John Trawick'

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitation replies on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More <https://support.google.com/calendar/answer/37135#forwarding>](https://support.google.com/calendar/answer/37135#forwarding).

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#); [Drew Crane](#); [Eric Taylor](#); [Paul Leonard](#); [Stephen Arthur](#); [Steve Berendzen](#); [Joanna Fox](#)  
**Subject:** RE: Resource Assessment next steps: Table for Discussion  
**Date:** Tuesday, February 20, 2018 3:19:02 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table Feb 2018.xlsx](#)

---

Hi Everyone,

<<...>>

Attached is the Excel spreadsheet I made that includes the Recommended Studies. It is a first draft, as I extracted the information from the documents and may have made some errors or misinterpretations. But it should be sufficient to provide an overview of the scope of requests for us to discuss today about how to proceed towards a high-priority research needs list by Friday.

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)

-----Original Appointment-----

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) [[mailto:wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:36 AM

**To:** 'John Trawicki'; Drew Crane; Eric Taylor; Paul Leonard; Stephen Arthur; Steve Berendzen; Joanna Fox

**Subject:** Resource Assessment next steps

**When:** Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.

**Where:** BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject,

Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

**We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:**

**b5-CIP** passcode: **b5-CIP**

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Google Calendar](#) on behalf of [Stephen Arthur](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Resource Assessment next steps  
**Attachments:** [invite.ics](#)

---

Stephen Arthur  
has accepted this invitation.

Resource Assessment next steps

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge/Working on the R7 Common drive (everyone in region has access).

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[867-6105](#) passcode: [867-6105](#)

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,  
Wendy

When

Tue Feb 20, 2018 3:15pm – 4pm Alaska Time

Where

BLM Kodiak room after 2-3pm meeting or conference line (map <<https://maps.google.com/maps?q=BLM Kodiak room after 2-3pm meeting or conference line&hl=en>> )

Video call

[867-6105](#)

Calendar

[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Who

• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

- organizer

• Joanna Fox

• Stephen Arthur

• Paul Leonard

• Steve Berendzen

• Drew Crane

• Eric Taylor

• John Trawick

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitation replies on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More <https://support.google.com/calendar/answer/37135#forwarding>](https://support.google.com/calendar/answer/37135#forwarding) .

**From:** [Wendy Loya](#)  
**To:** [Steve Berendzen](#)  
**Subject:** FW: Resource Assessment next steps

---

b5-CIP passcode: b5-CIP

-----Original Appointment-----

From: wendy\_loya@fws.gov <mailto:wendy\_loya@fws.gov> [mailto:wendy\_loya@fws.gov <mailto:wendy\_loya@fws.gov> ]  
Sent: Tuesday, February 20, 2018 10:36 AM  
To: Wendy Loya; Joanna Fox; Stephen Arthur; Paul Leonard; Steve Berendzen; Drew Crane; Eric Taylor; John Trawicki  
Subject: Resource Assessment next steps  
When: Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.  
Where: BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

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For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Siekaniec, Greg](#)  
**To:** [Wendy Loya](#); [Karen Clark](#)  
**Subject:** Re: Update: FWS Staff commitment to EIS writing due to BLM today  
**Date:** Tuesday, February 20, 2018 5:47:20 PM

---

In looking over the list I see that no one is noted as a writer in the migratory bird section. I cannot imagine us moving this forward without a Service employee being noted as a writer for this section. Of all the strengths we have our "ever present" nexus has been migratory birds.

Can we discuss yet today?

Thanks,

greg

On Tue, Feb 20, 2018 at 1:23 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Thanks for that info Karen, I think it is worth discussing further. However I need to go to a meeting at BLM now and have another after that, so I think what we should do is turn in this list and follow up this week with the economist you mentioned as well as a few names that Mark Chase provided me today as well. I think for extra-regional partners, we may want a little more clarity on the timeline in order to describe the commitment. We may hear more about that today....

More soon,

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:** Clark, Karen [mailto:[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 1:20 PM  
**To:** Wendy Loya  
**Cc:** Greg Siekaniec  
**Subject:** Re: Update: FWS Staff commitment to EIS writing due to BLM today

Hey Wendy,

We have economists at HQ that may be interested/willing to help... would you like me to check into their availability? I had a quick convo and it sounds like we could work something out, but I'd like your take on what would work best. If you'd like me to have more convos- it would be helpful to have a little more info about what their role would look like (time, work, etc).

Let me know what you think!

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

On Tue, Feb 20, 2018 at 12:48 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg and Karen,

I have been working with FWS divisions to finalize the list of FWS staff that will commit to writing or reviewing sections of the 1002 Area EIS for both the draft and final stages. The list is attached for your information. Where there are gaps, BLM has stated they will seek contractors.

As you are aware, we are sorting out the roles of staff with regards to the Birds section. If all staff are just reviewers, we are asking BLM to find a contractor.

I have also contacted Tom Doolittle in OSM to see if they have staff that can review subsistence or cultural resources sections.

Let me know if you have any concerns before I send to BLM at COB today.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Resource Assessment next steps: Table for Discussion  
**Date:** Tuesday, February 20, 2018 5:59:19 PM

---

Hi Wendy,

One quick comment on your table while I'm thinking of it: the last entry under "other mammals", which is to understand better which species are present: that is not only hares, as described in column D. In fact, hares are the lowest priority. The highest priority is to inventory small mammals, especially in riparian and lakeshore habitats where abundance and diversity are likely to be highest, and where impacts are most likely. We really don't know what species are even present, much less their abundance, distribution, or habitat associations. Cost for those surveys would be approx. \$20k per year for 1-3 years.

I'll get the table of current activities to you this afternoon.

Steve

**Stephen M. Arthur, Ph.D.**

*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

On Tue, Feb 20, 2018 at 1:19 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Everyone,

<<...>>

Attached is the Excel spreadsheet I made that includes the Recommended Studies. It is a first draft, as I extracted the information from the documents and may have made some errors or misinterpretations. But it should be sufficient to provide an overview of the scope of requests for us to discuss today about how to proceed towards a high-priority research needs list by Friday.

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)

-----Original Appointment-----

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:36 AM

**To:** 'John Trawicki'; Drew Crane; Eric Taylor; Paul Leonard; Stephen Arthur; Steve Berendzen; Joanna Fox

**Subject:** Resource Assessment next steps

**When:** Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.

**Where:** BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

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Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

**We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:**

**b5-CIP** [REDACTED] **passcode:** **b5-CIP** [REDACTED]

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Resource Assessment next steps: Table for Discussion  
**Date:** Tuesday, February 20, 2018 6:37:21 PM  
**Attachments:** [budget 2018 summary.xlsx](#)

---

Attached is a table showing our current plans for research and monitoring on the Refuge this year. This is similar to what we have been doing for the past 3 years. Descriptions of the projects are very brief; let me know if you'd like more details.

Steve

**Stephen M. Arthur, Ph.D.**

*Supervisory Wildlife Biologist  
Arctic National Wildlife Refuge  
101 12th Ave., Room 236  
Fairbanks, AK 99701  
(907)455-1830*

On Tue, Feb 20, 2018 at 1:19 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Everyone,

<<...>>

Attached is the Excel spreadsheet I made that includes the Recommended Studies. It is a first draft, as I extracted the information from the documents and may have made some errors or misinterpretations. But it should be sufficient to provide an overview of the scope of requests for us to discuss today about how to proceed towards a high-priority research needs list by Friday.

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)

-----Original Appointment-----

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) [[mailto:wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:36 AM

**To:** 'John Trawicki'; Drew Crane; Eric Taylor; Paul Leonard; Stephen Arthur; Steve Berendzen; Joanna

0000007215

Fox

**Subject:** Resource Assessment next steps

**When:** Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.

**Where:** BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject, Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

**We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:**

**b5-CIP** passcode: **b5-CIP**

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Reep, Brien E](#)  
**To:** [Wendy Loya](#)  
**Subject:** RE: Question about coastal access for Pt. Thomson  
**Date:** Tuesday, February 20, 2018 7:18:06 PM

---

Sounds good

Thanks

Brien E. Reep  
Safety, Security, Health & Environmental Manager  
ExxonMobil Alaska Production, Inc.  
Ofc Phone 1-907-564-3617  
Mobile iPhone 1-907-223-9255  
Fax 1-907-743-9809  
e-mail: [brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com)

---

**From:** Wendy Loya [[mailto:wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 4:38 PM  
**To:** Reep, Brien E <[brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com)>  
**Subject:** RE: Question about coastal access for Pt. Thomson

Hi Brian,

I will plan to call you Wednesday at 930am per your voice message. Thank you so much.

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:** Reep, Brien E [<mailto:brien.e.reep@exxonmobil.com>]  
**Sent:** Saturday, February 17, 2018 4:18 PM  
**To:** Moore, John D; Wendy Loya  
**Subject:** RE: Question about coastal access for Pt. Thomson

Wendy

We can provide you some useful information based on our Pt. Thomson experience. I will plan to contact you early next week to get a better understanding of your information needs and objectives so we can be better prepared to respond.

Thanks

Brien E. Reep  
Safety, Security, Health & Environmental Manager

ExxonMobil Alaska Production, Inc.  
Ofc Phone 1-907-564-3617  
Mobile iPhone 1-907-223-9255  
Fax 1-907-743-9809  
e-mail: [brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com)

---

**From:** Moore, John D  
**Sent:** Friday, February 16, 2018 8:01 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Reep, Brien E <[brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com)>  
**Subject:** RE: Question about coastal access for Pt. Thompson

Wendy,

Many thanks for your note!

I've copied in our SSHE Manager, Brien Reep, who would welcome the opportunity for discussion. He can also draw on other members of our team as / if needed.

Best,

John

**John D. Moore**  
Senior Advisor  
Public and Government Affairs  
ExxonMobil Alaska

+1-907-564-3739 Office  
+1-907-223-4576 Cell  
[john.d.moore@exxonmobil.com](mailto:john.d.moore@exxonmobil.com) Email

Visit [ExxonMobil's Energy Factor](#), an online resource covering the cutting-edge technology and innovations that are helping to meet tomorrow's energy needs.

---

**From:** Wendy Loya [[mailto:wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Thursday, February 15, 2018 2:40 PM  
**To:** Moore, John D <[john.d.moore@exxonmobil.com](mailto:john.d.moore@exxonmobil.com)>  
**Subject:** Question about coastal access for Pt. Thompson

Hi John,

We met at the Meaningful Engagement of Indigenous People within the EIA workshop in Utqiagvik. I was wondering if I could talk with you or one of your colleagues about logistics involving coastal access for Pt. Thompson as we prepare to understand how exploration and leasing might occur in the 1002 area of the Arctic National Wildlife Refuge? The questions I have could be summarized as "How did Exxon physically access Pt. Thompson during exploration and how does it logistically

support operations?" I have looked at the EIS and see that the project included using sea ice roads, sea ice airstrips and coastal infrastructure (pads, docks). I would imagine barging is a large part of continued operations, so it would be helpful to understand how that is carried out.

It would be very helpful to have a chance to talk with someone for 15-30 min.

Thank you.  
Best regards,  
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:** [Wendy Loya](#)  
**To:** [Joshua Bradley](#); [Paul Leonard](#)  
**Subject:** RE: FW: FY18 Science Apps Opportunities - Invitation to edit  
**Date:** Wednesday, February 21, 2018 10:50:13 AM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx](#)

---

Thanks for that idea Josh...

Is there a funding request associated with it or to make it bigger and better to serve more broadly across the service?

There are a couple of requests for broader data compilation/coordination in the attached table, as well as a number of monitoring studies proposed for caribou, other mammals and birds for the Refuge. Also, a structure for cataloging information on cultural resource studies that I highlighted.

Another needed conversation is how data relevant to the Refuge from the Beaufort Sea Lagoon LTER site (new coastal LTER) could be ingested for our use...working with LTER PI's to understand their database structure and how we might harvest from it?

I can see requesting funding for item #1 and also contributing to an updated vegetation map if actually needed (follow up conversation needed with BLM's Scott Guyer and perhaps Debbie Nigro needed to understand how would be used). Could this build off Mark Lara's effort at Landform mapping if we want to understand soils-vegetation relationships?

I'll schedule a call with you guys for maybe tomorrow, so if you can look through table and also think more broadly about how we can really do something useful and transformative with your data and spatial skills, that would be great!

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:** Bradley, Joshua [mailto:[joshua\\_bradley@fws.gov](mailto:joshua_bradley@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 5:49 PM  
**To:** Wendy Loya  
**Cc:** Paul Leonard  
**Subject:** Re: FW: FY18 Science Apps Opportunities - Invitation to edit

Hi,

It would be good to add in the work we're doing with Arctic Refuge(Chris Latty). This is a good example of work that SA can do that has immediate practical impact, hits on several regional priorities and has potential for development at a regional scale. The request for assistance was also initiated outside of SA. Thoughts?

0000007220

Josh

=====  
Joshua Bradley  
Arctic LCC Data Manager  
U.S. Fish and Wildlife Service  
101 12th Avenue, Room 216  
Fairbanks, Alaska 99701  
907.455.1847 (office)  
907.519.9370 (cell)  
<http://arcticlcc.org>  
<https://www.mdeditor.org/>  
=====

On Tue, Feb 20, 2018 at 10:12 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
FYI, let me know if there are things you would like to add.  
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:** Selbo, Sarena [mailto:[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 8:08 AM  
**To:** aaron poe  
**Cc:** Karen Murphy; Wendy Loya; Amy Pocewicz  
**Subject:** Re: FY18 Science Apps Opportunties - Invitation to edit

Thanks for setting this up Aaron. After you all have your thoughts together please meet as a team and prioritize as a whole (not LCC by LCC). I'd like the final with rankings by Feb 26 if possible.

On Mon, Feb 19, 2018 at 4:17 PM, aaron poe (via Google Sheets) <[\[REDACTED\]@gmail.com](mailto:[REDACTED]@gmail.com)> wrote:

[aaron poe](#) has invited you to **edit** the following spreadsheet:

[FY18 Science Apps Opportunties](#)

[REDACTED] Hi folks--I took a stab at putting this google sheet together of potential opportunities that still make sense for science applications in the Alaska Region. Hopefully it's not too

cumbersome and certainly feel free to rearrange etc. if you all can see a better way to organize the information. As is, it's pretty easy to copy over content from the RDT project list that Sarena had us put together last year too. [that link in case you want it:  
<https://docs.google.com/document/d/1N1gT50ecKrusoLpmxyQOet67F0L3fjBxpzWsiOyHu74/edit>  
]

Thanks all!

AA

[Open in Sheets](#)

Google Sheets: Create and edit spreadsheets online.

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

You have received this email because someone shared a spreadsheet with you from

Google Sheets.

--

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](#)

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#); [Joanna Fox](#); [Eric Taylor](#); [John Martin](#); [Drew Crane](#); [Tracy Fischbach](#); [Stephanie Brady](#); [Steve Berendzen](#); [Socheata Lor](#); [Doug Damberg](#)  
**Subject:** RE: FWS\_Arctic Refuge\_Weekly\_POC\_Updates  
**Date:** Wednesday, February 21, 2018 11:02:34 AM

---

Hi everyone,

We have our weekly intra-FWS 1002 Program meeting scheduled today for 1pm. I am not sure that I have any updates to share, so please add any agenda items in the rolling agenda document and we'll verify that we need to meet today.

<https://docs.google.com/document/d/1xmo2N2wn5jqdGaORClDQ29gTvWb93TaTJCIL5BqsXm0/edit>

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)

-----Original Appointment-----

**From:** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov) [[mailto:john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)] **On Behalf Of** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)  
**Sent:** Wednesday, February 07, 2018 10:16 AM  
**To:** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov); [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov); [john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov); [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov); [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov); [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov); [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov); [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov); [doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)  
**Subject:** FWS\_Arctic Refuge\_Weekly\_POC\_Updates  
**When:** Wednesday, February 21, 2018 1:00 PM-2:00 PM (UTC-09:00) Alaska.  
**Where:** FWS-FW7 NWRS Conference Room/Regional Office

Weekly Update-

**From:** [Christopher Arp](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** ANWR slide and misc items  
**Date:** Wednesday, February 21, 2018 11:12:41 AM  
**Attachments:** [NS ANWR water.jpg](#)

---

Hi Wendy,

Thanks for helping me track down 1002 area shapefile. Here's the figure I needed it for. Bill Schnabel's meeting with our senators and old rep in DC next week and was going to put this question to them and see if it eventually helps fund some relevant science.

A few other things:

1 - Date for our Fish CAFE Arctic Adaptive Management meeting is morning of March 23. We haven't announced anything officially yet, but will be at BLM office in Fairbanks and will also have a web link to join that way.

2 - Had a good meeting with Toolik LTER Stream Team folks (Breck B, Linda Deegen, Alex Hyrun, etc) via conference call to their annual Woods Hole meeting last week. They were quite interested in TEON being defunded and we discussed some possibilities of them providing more support to maintain breakup gauging and help with other parts if needed. Not sure what will come of it, but good chat.

3 - We're moving forward with plan to modify TEON to help better meet current science needs (ANWR and late season flows). We're working on an automated flow dilution system to use for gauging ice affected late season flows, which we are also going to test during breakup this year. We won't be doing snow surverys. Emily is starting the process of modeling late season flow for existing Kuparuk R. I also have three budget scenarios in hand for future TEON funding that we can discuss at some point.

4 - Have internal reviews back on FEE Fish CAFE synthesis paper and am planning on revising and submitting sometime in next month or so.

5 - Go 25 year ice regime analysis paper accepted at Remote Sensing the Environment last week. Has that dataset been posted yet on ALCC website? Not a bit deal as we're working with Arctic Data Center to post data there too, but would be nice to list sources in final manuscript text.

Cheers,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: 907-474-2783

Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)

<http://ine.uaf.edu/werc/people/chris-arp/>

<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>

-----

**From:** [Leonard, Paul](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: 1002 Climate / Snow Resource Assessment for your review  
**Date:** Wednesday, February 21, 2018 11:35:02 AM

---

Just FYI,

Matthew called me first thing this AM to discuss.

He mentioned that covering that entire 1002 (given the short window) would be a steep hill to climb so I will use that scenario as the 'ideal' and work on identifying specific areas first. But, will also reach out to NSB in hopes we could pull together partners to do a 1002-wide survey.

Cheers,  
Paul

On Wed, Feb 21, 2018 at 9:20 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Thanks Chris,

I'll also put this out there, it was in an update from USGS Alaska regarding their work in 1002 area. Perhaps this affects what we propose to do? Or? Paul or I could contact NSB and find out what their plan is.

' 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.'

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)

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

From: Chris Larsen [mailto:[cflarsen@alaska.edu](mailto:cflarsen@alaska.edu)]  
Sent: Wednesday, February 21, 2018 9:11 AM  
To: Wendy Loya  
Cc: Matthew Sturm; Paul Leonard; Frank Urban  
Subject: Re: 1002 Climate / Snow Resource Assessment for your review

Hi Wendy, Paul, and Frank,

Just so you know, these aerial surveys will provide hi res images as well as topographic data. The products include precisely georeferenced orthomosaics with 10 cm pixels.

My personal preference would be to cover the entire 1002 area in the summer so as to provide a baseline against which future changes can be measured, in

addition to providing the surface for snow depth measurements. However, this would need additional support beyond what NASA seems to be able to provide at present.

Regardless, I thought I'd let you know about the imagery aspect of this so that it could be considered in the planning stages.

Thanks,  
Chris

> On Feb 21, 2018, at 8:57 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

>

> Hi Matthew,

>

> This is great news! Thank you for your perseverance with NASA. I  
> feel confident we can get funding to help with logistics costs and  
> highly likely for ground support. We can work with colleagues in FWS  
> to figure out ground logistics, ideally bringing in a Refuge staff or  
> perhaps someone from Kaktovik with good snowmachine experience if that  
> is what you are talking about.

>

> Paul, if you can come up with at least a very general budget by Monday  
> noon that would be awesome as we are prioritizing funding in OSA that  
> afternoon.

> Please bring Greta, Janet, John Trawicki and Steve Berendzen and/or  
> Joanna Fox (and anyone else from Arctic Refuge that might have  
> knowledge on landscape conditions) in on the discussion about where to  
> survey, at least meeting with them directly to get their input.

>

> Woo-hoo!

> 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)

>

> -----Original Message-----

> From: Matthew Sturm [<mailto:msturm1@alaska.edu>]

> Sent: Wednesday, February 21, 2018 8:46 AM

> To: Leonard, Paul

> Cc: Wendy Loya; Chris Larsen; Frank Urban

> Subject: Re: 1002 Climate / Snow Resource Assessment for your review

>

> Dear Paul:

>

> Having secured some NASA funds, we will be able to fly snow lidar  
> and/or structure from motion over the 1002 area sometime during the  
> first two weeks of April. Chris Larsen (cc'd here) and you should plan

- > to get together to discuss what ought to be covered (ideally), what
- > resources the USFWS might be able to help with (fuel, lodging), and
- > whether we might be able to put a team (perhaps led by Frank Urban of
- > the USGS) on the ground during the flight period.
- >
- > I will be back in Alaska on the 26th, but leave for field work on March
- > 4th.
- > I can help coordinate and facilitate, but I think you and Chris can
- > get that started now more efficiently. I would, however, like to be
- > kept in the loop as things develop. I placed a call to Frank to see if
- > he is available...but I don't have an answer yet.
- >
- > This seems like a positive development.
- >
- > Matthew

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Frank Urban](#)  
**To:** [Matthew Sturm](#)  
**Cc:** [Leonard, Paul](#); [Wendy Loya](#); [Chris Larsen](#)  
**Subject:** Re: 1002 Climate / Snow Resource Assessment for your review  
**Date:** Wednesday, February 21, 2018 12:57:35 PM

---

Matthew- I just got your voicemail and this note. I am away from the office in a lab all day today- I will call you tomorrow morning to go over this and availability etc.. I agree this looks like a very positive development and let's start looking at what we can do!

> On Feb 21, 2018, at 10:46 AM, Matthew Sturm <msturm1@alaska.edu> wrote:

>

> Dear Paul:

>

> Having secured some NASA funds, we will be able to fly snow lidar and/or structure from motion over the 1002 area sometime during the first two weeks of April. Chris Larsen (cc'd here) and you should plan to get together to discuss what ought to be covered (ideally), what resources the USFWS might be able to help with (fuel, lodging), and whether we might be able to put a team (perhaps led by Frank Urban of the USGS) on the ground during the flight period.

>

> I will be back in Alaska on the 26th, but leave for field work on March 4th. I can help coordinate and facilitate, but I think you and Chris can get that started now more efficiently. I would, however, like to be kept in the loop as things develop. I placed a call to Frank to see if he is available...but I don't have an answer yet.

>

> This seems like a positive development.

>

> Matthew

>

>

>

>

**From:** [Atwood, Todd](#)  
**To:** [Payer, David](#)  
**Cc:** [Miller, Mark](#); [Wendy M. Loya, PhD](#); [Miriam \(Nicole\) Hayes](#); [Alfredo Soto](#); [Davyd Betchkal](#); [Roger Kaye](#); [Tracy Fischbach](#); [Kenneth \(Alan\) Peck](#); [Fritz, Stacey](#); [Goodwin, Randy](#)  
**Subject:** Re: 1002 resource information assessment for Acoustic Environment  
**Date:** Wednesday, February 21, 2018 12:58:21 PM  
**Attachments:** [Kleist etal noise disrupts GC signaling PNAS 18.pdf](#)

---

Looks interesting- thanks for the heads-up. I've attached a copy.

On Wed, Feb 21, 2018 at 10:54 AM, Payer, David <[david\\_payer@nps.gov](mailto:david_payer@nps.gov)> wrote:

Thanks for your leadership on this effort, Mark! Ironically I just came across this [press release](#). I haven't gotten my hands on the paper itself yet, but if anyone has access to it, please share <http://www.pnas.org/content/early/2018/01/03/1709200115.full>

-Dave

On Fri, Feb 16, 2018 at 2:01 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Wendy -

Here's our team's contribution for the Acoustic Environment.

Mark

---

**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*

**From:** [Matz, Angela](#)  
**To:** [Wendy Loya](#); [John Martin](#)  
**Subject:** Oil Spill Template updated  
**Date:** Wednesday, February 21, 2018 1:15:17 PM  
**Attachments:** [Oil Spills REPORTING TEMPLATE update.docx](#)

---

Hi Wendy and John,

Please use this latest version, attached and placed in the requested directory.

Thanks!

Angela

--

*Angela Matz, Ph.D.*  
*U.S. Fish and Wildlife Service*  
*4700 BLM Road Anchorage, AK 99507-2546*  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Wendy Loya](#)  
**To:** [John Trawick](#); [Tracy Fischbach](#); [Doug Damberg](#); [Stephanie Brady](#); [Eric Taylor](#); [Joanna Fox](#); [Drew Crane](#); [Steve Berendzen](#); [John Martin](#); [Socheata Lor](#); [Stephen Arthur](#)  
**Cc:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** Draft Timeline for 1002 Area EIS  
**Date:** Wednesday, February 21, 2018 1:38:14 PM  
**Attachments:** [EIS Milestones Deliberative DRAFT 020218.pdf](#)

---

Dear FWS 1002 POCs and key staff,

Attached is the initial EIS DRAFT timeline provided by BLM. In the words of BLM: 'I cannot overemphasize that the milestones are DRAFT. There have been no firm decisions to date and we know once decisions are made that this schedule will change.'

The feedback to BLM from above is that it is too slow. I am providing this so that as you talk to your staff identified on the EIS writing table and plan fieldwork and travel, you will be aware of the order of things happening.

The timeline will start when BLM publishes a Notice of Intent (NOI) to prepare the EIS. The goal for that at this point is mid-March.

Please do not distribute further at this time, I will share a version for further distribution when it is finalized.

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:** [Brady, Stephanie](#)  
**To:** [Socheata Lor](#); [Doug Damberg](#); [John Trawicki](#); [Wendy Loya](#); [Steve Berendzen](#); [Fox, Joanna](#); [Drew Crane](#)  
**Subject:** Fwd: List of Possibly Relevant Regulations to Leasing in the 1002 Area  
**Date:** Wednesday, February 21, 2018 4:00:13 PM  
**Attachments:** [List of Laws Regulations Related to Arctic Leasing and Ops.docx](#)

---

Attached are the list of laws/regs that Ella pulled together for us. I will see if she can meet on March 14 to further discuss. 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

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

From: **Wagener, Ella** <[ella\\_wagener@fws.gov](mailto:ella_wagener@fws.gov)>  
Date: Fri, Feb 16, 2018 at 9:04 AM  
Subject: List of Possibly Relevant Regulations to Leasing in the 1002 Area  
To: Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>

Hi guys,

Attached is the list of possibly relevant regulations to drilling in the 1002 Area. It is just a copy and paste of the exact text from these regulations and includes no discussion of how they may or may not apply. I discussed with the Solicitor and added some additional laws and regulations based on that conversation.

Let's set up a time to talk.

Let me know when works,

Hope you guys are preparing to enjoy the long holiday weekend,  
Ella

--  
Ella Wagener, J.D.  
Natural Resource Policy Advisor  
USFWS - National Wildlife Refuge System  
P: 303-236-4346  
C: 703-283-2142  
E: [Ella\\_Wagener@fws.gov](mailto:Ella_Wagener@fws.gov)  
[www.fws.gov/refuges/](http://www.fws.gov/refuges/)

**From:** [Berendzen, Steve](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Joanna Fox](#)  
**Subject:** Re: Update: FWS Staff commitment to EIS writing due to BLM today  
**Date:** Wednesday, February 21, 2018 4:03:53 PM

---

Wendy,

Could you please send the updated version of this IDT spreadsheet to Joanna and me? We don't have the new one so we can identify which staff are confirmed in which capacity.

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

On Tue, Feb 20, 2018 at 12:48 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg and Karen,

I have been working with FWS divisions to finalize the list of FWS staff that will commit to writing or reviewing sections of the 1002 Area EIS for both the draft and final stages. The list is attached for your information. Where there are gaps, BLM has stated they will seek contractors.

As you are aware, we are sorting out the roles of staff with regards to the Birds section. If all staff are just reviewers, we are asking BLM to find a contractor.

I have also contacted Tom Doolittle in OSM to see if they have staff that can review subsistence or cultural resources sections.

Let me know if you have any concerns before I send to BLM at COB today.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

0000007234

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Drew Crane](#); [Eric Taylor](#); [Joanna Fox](#); [John Trawicki](#); [Stephanie Brady](#); [Steve Berendzen](#)  
**Subject:** FWS EIS Team list provided to BLM  
**Date:** Wednesday, February 21, 2018 4:30:49 PM  
**Attachments:** [ID Team\\_022018 \(FWS\).xlsx](#)

---

Hi 1002 Team,

Attached is the Final EIS Team list, please let me know if you see any errors. It was confusing at the end of the day as the list evolved and not everyone knew it was evolving in Refuges.

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:** Do you want to meet with 1002 Team on Friday as scheduled?  
**Date:** Wednesday, February 21, 2018 4:32:58 PM

---

Hi Greg and Karen,

Just checking in on whether we will have our biweekly 1002 program check-in at 9am Friday or if your schedules preclude that.

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:** [Paul Leonard](#)  
**Subject:** FW: Resource Assessment next steps: Table for Discussion  
**Date:** Wednesday, February 21, 2018 4:34:38 PM

---

Haven't read, but forwarding for your consideration...

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:** Taylor, Eric [mailto:[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 2:33 PM  
**To:** Wendy Loya  
**Subject:** Re: Resource Assessment next steps: Table for Discussion

Hi Wendy -

I was able to quickly review the list of recommended studies this morning to determine what our program submitted and to better address your request for criteria to prioritize the list for Greg to consider. I'll also provide you some remarks that you may want to consider as you move forward.

- The purpose and objectives of this exercise should be clarified to ensure that BLM understands how the list was generated by the Service. Are the 86 studies necessary because (i) collecting baseline data will allow the Service to see what might happen post development? (ii) necessary now to minimize potential impacts of a specific activity? (iii) necessary for planning purposes i.e., to set buffers around higher priority habitats; (iv) needed because we just don't know something that we think is important (independent of oil and gas development) and this provides a funding source? (v) necessary because oil and gas activities have resulted in demonstrated habitat loss, degradation, fragmentation, or other negative impacts (increased predators, displacement, lower productivity/abundance/density of wildlife, poorer water/air quality, contaminants...?) Given the sheer number of studies, I think the risk is that BLM and DOI leadership will think this is just a "wish list" without justification or a direct management implication.

- I am guessing the list will not be funded as it is currently presented, nor should it be (and this holds for all MBM proposed studies). I would expect BLM, DOI and certainly the oil and gas industry to ask for justification on why these studies are needed to allow for responsible oil and gas development. Many studies assume bad things will. or have happened in other areas with oil and gas development; I would argue "yes", "perhaps" and "no". We have 30+ years of oil and gas development in Arctic Alaska. What has the millions of dollars spent on environmental research and monitoring told us to date? I do not think simply saying because of "ANILCA", "for management purposes", "to decrease potential impacts", or "to provide baseline data" justifies a study. The list requires prioritization based on specific criteria.

- Several reasonable criteria to assess proposed studies were mentioned in yesterday's

meeting. I was running out of steam by 4 pm so not sure if I have captured these correctly.

1. Will the results of the study be directly applied to a management decision (e.g., placement of a pipeline, development near the coast vs. inland, start of seismic activity when the ground freeze depth is not less than 14"....)?
2. Is the study a one-year effort whereby the answer will provide us a recommendation to mitigate potential effects of oil and gas activities or is does the study require 3-5 years to account for variation?
3. Is the information of value/importance to our partners (e.g., Arctic Village, North Slope Borough) and if so, how many partners.
4. Is the species a priority species (defined by a national list, the Refuge, the Region...)? For example is understanding potential impacts to brown lemmings as important as polar bears?
5. What is the risk of not doing a study? Lots of studies provide us interesting information that is nice to know; however, will the findings be applied to make a management decision (e.g., inspection of pipelines will not occur from date 1 to date 2) or to provide a baseline whereby the study would be repeated in 5 or 10 years to examine potential impacts of development? That said, the scale of the question vs. the scale of development will be critical if a cause-effect relationship is the objective of the work.
6. What have we learned from 30+ years of oil and gas development in other areas of Arctic Alaska? Is the study proposed because we've not addressed that question elsewhere? For example, significant literature exists on habitat relationships of birds on the Arctic Coastal Plain, displacement as the result of road and pad building and transportation dust/noise, nest and juvenile survival in and out of oil fields etc. Do the proposed studies build off previous work by doing the same work now in Arctic Refuge vs. Prudhoe Bay or is the study addressing a different question or an old question that to date has not been answered? For example on page 51 of the 2002 Arctic Refuge Coastal Plain Research Summary publication, predators including bears, wolves and golden eagles are described including their distribution and rates of predication. Yet, similar studies are proposed in this list. Why? Does the Service believe these assessments are inadequate or that environmental conditions have resulted in changes?
7. I assume Ecological Service's personnel such as Louise Smith and others with decades worth of experience in assessing and mitigating oil field impacts to habitats and Service trust resources have weighed in on what questions remain unanswered whether at Kuparuk or the Arctic Refuge. If not, I would suggest they could provide invaluable insights into this process.
8. Is the study necessary for planning purposes. For example, previous literature from the late 1990s may show that relative to other areas of the Coastal Plain, the Canning River Delta has the greatest species richness, density and productivity of shorebirds. Is a one-year study to verify this all that is required for the Service to recommend BLM not offer this area to exploration, development and production or recommend a buffer?

In summary, I would recommend the list of studies be prioritized to ensure the most important

work receives support to allow design and implementation in a timely manner. I am sure I am missing other criteria we discussed that studies should be assessed by. To rank MBM surveys and other projects, we had multiple, multi-hour meetings with long discussions thereafter on Management Application, Partner Priorities, Species Covered, Quality of Information and Outreach/Public Relations settling in on the most important criteria for which we're pushing our studies through for ranking and subsequent support. The process was painful but productive.

I hope that at least some of this is helpful.

Eric

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

On Tue, Feb 20, 2018 at 1:19 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Everyone,

<<...>>

Attached is the Excel spreadsheet I made that includes the Recommended Studies. It is a first draft, as I extracted the information from the documents and may have made some errors or misinterpretations. But it should be sufficient to provide an overview of the scope of requests for us to discuss today about how to proceed towards a high-priority research needs list by Friday.

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)

-----Original Appointment-----

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:36 AM

**To:** 'John Trawicki'; Drew Crane; Eric Taylor; Paul Leonard; Stephen Arthur; Steve Berendzen; Joanna Fox

**Subject:** Resource Assessment next steps

**When:** Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.

**Where:** BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject, Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

**We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:**

**65-CIP** passcode: **65-CIP**

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Wendy Loya](#)  
**To:** [Stephen Arthur](#)  
**Subject:** RE: Resource Assessment next steps: Table for Discussion  
**Date:** Wednesday, February 21, 2018 4:35:35 PM

---

Hi Steve,

Would you be able to call me at 800am tomorrow (Thursday) or send me a number to reach you?

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 2:29 PM  
**To:** Wendy Loya  
**Subject:** Re: Resource Assessment next steps: Table for Discussion

Hi Wendy,

I should be around tomorrow morning--would 8 or 9 am (AK time) work for you?

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 Wed, Feb 21, 2018 at 11:52 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Thanks for sharing the Refuge study plan and your input on prioritization. Would you have time to chat by phone tomorrow (Thursday)? I am free except 9-10am AK time.

I don't want to be perceived as making decisions on what work is a priority for the Refuge, my intent is to help lead an intra-agency conversation about what is needed. At the same time, I stepped into this role because I could see we needed leadership in organizing that broader conversation, moving it beyond the FWS and I had a sense of the science needed to support oil and gas program decisions.

I welcome your input and recommendations every step of the way and happy to have you lead or co-lead any aspect of the work. When we talk I would like a better understanding of your desired role as I know you are partially retired.

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 4:37 PM  
**To:** Wendy Loya  
**Subject:** Re: Resource Assessment next steps: Table for Discussion

Attached is a table showing our current plans for research and monitoring on the Refuge this year. This is similar to what we have been doing for the past 3 years. Descriptions of the projects are very brief; let me know if you'd like more details.

Steve

Stephen M. Arthur, Ph.D.  
*Supervisory Wildlife Biologist*  
*Arctic National Wildlife Refuge*  
[101 12th Ave., Room 236](#)  
[Fairbanks, AK 99701](#)  
[\(907\)455-1830](#)

On Tue, Feb 20, 2018 at 1:19 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Everyone,

<<...>>

Attached is the Excel spreadsheet I made that includes the Recommended Studies. It is a first draft, as I extracted the information from the documents and may have made some errors or misinterpretations. But it should be sufficient to provide an overview of the scope of requests for us to discuss today about how to proceed towards a high-priority research needs list by Friday.

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)

-----Original Appointment-----

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:36 AM

**To:** 'John Trawicki'; Drew Crane; Eric Taylor; Paul Leonard; Stephen Arthur; Steve Berendzen; Joanna Fox

**Subject:** Resource Assessment next steps

**When:** Tuesday, February 20, 2018 3:15 PM-4:00 PM (UTC-09:00) Alaska.

**Where:** BLM Kodiak room after 2-3pm meeting or conference line

Hi 1002 team,

I would like to talk with a few of you about next steps for the information in the Resource Assessments that were turned in Friday. If you want to have a look, they are in a folder called 1002 Arctic Refuge\Working on the R7 Common drive (everyone in region has access).

I have compiled nearly all of the information into an excel sheet that identifies: Subject, Purpose, Need, and Recommended Action. Now I would like to talk to you all about how to prioritize this information and what other information we need to do that. I will send the spreadsheet out by 2pm today after I add the last information.

Greg has asked that we provide a list of our highest priorities to BLM by Friday. I think we then have another week to compile a more complete and robust document, although we can discuss the scope and timeline for that as well.

**We'll try to stay in the room at BLM to continue this conversation if possible, and will use the following call in number for those not in the room:**

**65-CIP** passcode: **65-CIP**

For those of you calling in, we may be a little late if our meeting with BLM runs over but will try to keep on track or keep you posted.

Thank you,

Wendy

**From:** [Wendy Loya](#)  
**To:** [Stephanie Brady](#)  
**Cc:** [Joanna Fox](#); [John Trawicki](#); [Steve Berendzen](#)  
**Subject:** RE: FWS EIS Team list provided to BLM  
**Date:** Wednesday, February 21, 2018 4:45:40 PM

---

Thank you for that suggestion, Stephanie.

If Steve and Joanna agree, I think that listing Jen for WSR is a good idea, as it also reminds them we have to address that issue.

If you all can think of other categories that were not in the table, we can add those as well.

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:** Brady, Stephanie [mailto:[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 2:42 PM  
**To:** Wendy Loya  
**Cc:** Joanna Fox; John Trawicki; Steve Berendzen  
**Subject:** Re: FWS EIS Team list provided to BLM

Thanks Wendy - perhaps we should add a category for wild and scenic rivers?  
Jen Reed is our rep for the FWS - this will have to be analyzed for the BLM EIS  
- it may be too late for this exercise but that should be in the mix. 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

On Wed, Feb 21, 2018 at 2:30 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi 1002 Team,

Attached is the Final EIS Team list, please let me know if you see any errors. It was confusing at the end of the day as the list evolved and not everyone knew it was evolving in Refuges.

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:** [Ryan Wilson](#)  
**Subject:** PB document  
**Date:** Wednesday, February 21, 2018 4:59:18 PM  
**Attachments:** [Polar Bear v3.0.docx](#)

---

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:** [Trawicki, John](#)  
**To:** [Brady, Stephanie](#); [Doug Damberg](#)  
**Cc:** [Wendy Loya](#); [Joanna Fox](#); [Steve Berendzen](#)  
**Subject:** Re: FWS EIS Team list provided to BLM  
**Date:** Wednesday, February 21, 2018 5:55:44 PM

---

Wendy-

In continued discussion with Doug D. we would like to remove Roy Churchwell from the list.

john t

On Wed, Feb 21, 2018 at 2:41 PM, Brady, Stephanie <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)> wrote:  
Thanks Wendy - perhaps we should add a category for wild and scenic rivers?  
Jen Reed is our rep for the FWS - this will have to be analyzed for the BLM EIS - it may be too late for this exercise but that should be in the mix.  
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

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Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

0000007248

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--

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

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

**From:** [Wendy Loya](#)  
**To:** [Eric Taylor](#)  
**Subject:** RE: FWS EIS Team list provided to BLM  
**Date:** Wednesday, February 21, 2018 7:13:42 PM

---

I will let BLM know 😊 But I would surely make that mistake if you hadn't mentioned it.

FYI, Roy Churchwell will be removed from the bird section, which is a loss of a Writer.

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:** Taylor, Eric [mailto:[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 5:11 PM  
**To:** Wendy Loya  
**Subject:** Re: FWS EIS Team list provided to BLM

Hi Wendy -

Thank you for the note. A minor note on Row 23, Column B: the correct spelling is Steller's eider (not Stellar's eider). Don't feel bad, the error has occurred about 23,799 times before. ;) Hang in there.

Cheers.

Eric

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

On Wed, Feb 21, 2018 at 2:30 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi 1002 Team,

Attached is the Final EIS Team list, please let me know if you see any errors. It was confusing at the end of the day as the list evolved and not everyone knew it was evolving in Refuges.

Thank you,  
Wendy

0000007250

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:** [Steve Berendzen](#); [Amee Howard](#); [Doug Damberg](#); [Jenifer Kohout](#); [Joanna Fox](#); [Mitch Ellis](#); [Patrick Lemons](#); [Sara Boario](#); [Sarah Conn](#); [Socheata Lor](#); [Stephanie Brady](#); [Wendy Loya](#); [Drew Crane](#)  
**Subject:** 1002 ongoing work inventory  
**Date:** Wednesday, February 21, 2018 10:18:47 PM  
**Attachments:** [USGS 1002 ongoing work to WS w pubs estimates for Dep Sec \(1\).xlsx](#)

---

I have attached an example spreadsheet being used by USGS to track ongoing work in the 1002 area to brief headquarters. Greg would like us to explore creating and maintaining a similar inventory for FWS. I am sending this now with the hope we can discuss it during our call/meeting on Friday.

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

**From:** [Wendy Loya](#)  
**To:** [Mary Colligan](#); [Steve Berendzen](#); [Amee Howard](#); [Doug Damberg](#); [Jenifer Kohout](#); [Joanna Fox](#); [Mitch Ellis](#); [Patrick Lemons](#); [Sara Boario](#); [Sarah Conn](#); [Socheata Lor](#); [Stephanie Brady](#); [Drew Crane](#)  
**Subject:** RE: 1002 ongoing work inventory  
**Date:** Wednesday, February 21, 2018 11:18:03 PM  
**Attachments:** [2018\\_0320\\_ANSSR\\_0214draft.docx](#)

---

Hi Mary et al.,

This request coincides nicely with a request that NSSI sent out today in a call for information from agencies/industry/institutions for the Annual North Slope Studies Review Meeting on March 20th. The NSSI request asks for more information, which I think has good value for communicating why we are doing what we are doing:

1. What studies are being conducted where, by whom (PI), when, and for what duration?
2. What specific management decisions and decision makers are these studies designed to inform?
3. What products will be produced by these studies and when?
4. How will resulting information be shared with decision makers, North Slope communities, and the general public?

You can see in the attachment that all DOI, plus NOAA, ADFG and Industry will be making similar tables, so if this information was sent to DC, there would be similar information shared.

The announcement is attached; I am scheduled to present for FWS, but I don't have to if someone else wants to 😊

Last year contributions for each division were compiled by Rick Lanctot, Jenifer Kohout, Steve Arthur and myself.

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:** Colligan, Mary [mailto:[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 8:19 PM  
**To:** Steve Berendzen; Amee Howard; Doug Damberg; Jenifer Kohout; Joanna Fox; Mitch Ellis; Patrick Lemons; Sara Boario; Sarah Conn; Socheata Lor; Stephanie Brady; Wendy Loya; Drew Crane  
**Subject:** 1002 ongoing work inventory

I have attached an example spreadsheet being used by USGS to track ongoing work in the 1002 area to brief headquarters. Greg would like us to explore creating and maintaining a similar inventory for FWS. I am sending this now with the hope we can discuss it during our call/meeting on Friday.

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

**From:** [Wendy Loya](#)  
**To:** [Stephanie Brady](#)  
**Subject:** RE: List of Possibly Relevant Regulations to Leasing in the 1002 Area  
**Date:** Wednesday, February 21, 2018 11:31:22 PM

---

Stephanie,

Is this something you want to share at Friday meeting with RDT members (Greg absent), or wait until 14<sup>th</sup> when we can get context and clarification from Ella? If Friday, would you want to send to that list of participants on the standing invite?

Thanks, I am fine with whatever you decide,  
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:** Brady, Stephanie [mailto:[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 2:00 PM  
**To:** Socheata Lor; Doug Damberg; John Trawicki; Wendy Loya; Steve Berendzen; Fox, Joanna; Drew Crane  
**Subject:** Fwd: List of Possibly Relevant Regulations to Leasing in the 1002 Area

Attached are the list of laws/regs that Ella pulled together for us. I will see if she can meet on March 14 to further discuss. 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

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

**From:** **Wagener, Ella** <[ella\\_wagener@fws.gov](mailto:ella_wagener@fws.gov)>  
**Date:** Fri, Feb 16, 2018 at 9:04 AM  
**Subject:** List of Possibly Relevant Regulations to Leasing in the 1002 Area  
**To:** Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>

Hi guys,

Attached is the list of possibly relevant regulations to drilling in the 1002 Area. It is just a copy and paste of the exact text from these regulations and includes no discussion of how they may or may not apply. I discussed with the Solicitor and added some additional laws and regulations based on that conversation.

0000007255

Let's set up a time to talk.

Let me know when works,

Hope you guys are preparing to enjoy the long holiday weekend,  
Ella

--

Ella Wagener, J.D.  
Natural Resource Policy Advisor  
USFWS - National Wildlife Refuge System  
P: 303-236-4346  
C: 703-283-2142  
E: [Ella\\_Wagener@fws.gov](mailto:Ella_Wagener@fws.gov)  
[www.fws.gov/refuges/](http://www.fws.gov/refuges/)

**From:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**To:** [Stephen Arthur](#); [Paul Leonard](#)  
**Subject:** Discuss Resource Assessment Prioritization  
**Date:** Wednesday, February 21, 2018 11:44:45 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx](#)

---

Please see attached. This is our first effort at prioritization, definitely a draft. We defined Regulatory as MMPA, ANILCA, etc. as all equal so that is a point for discussion. We'll want to decide if we want to share the values we entered for prioritization with leads as we ask them to fill in the last two columns, cost and duration in this first round (Providing list of needs to BLM on Friday).

Thanks,

Wendy

<<...>>

**From:** [Santos, Lynne](#)  
**Bcc:** [fw7allusers-dynamic@fws.gov](mailto:fw7allusers-dynamic@fws.gov)  
**Subject:** Regional Directors Notes 2-20-18 Have a great week! Lynne  
**Date:** Thursday, February 22, 2018 8:33:47 AM  
**Attachments:** [RDT NOTES 2-20-18.pdf](#)

---

**Region 7 - Alaska Budget and Administration**

**Vision:** We Give the Mission Life!

**Mission:** We strategically partner to provide efficient, effective, and professional support

*Lynne Santos  
FOIA Officer & Administrative Specialist  
1011 E. Tudor Road MS 374  
Anchorage, Alaska 99503  
Tel 907-786-3544  
Fax 907-786-3306*

*“Don't find fault, find a remedy; anybody can complain” - Henry Ford  
“Common sense is genius dressed in its working clothes” -Ralph Waldo Emerson*

**From:** [Gibbs, Ann](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Bruce Richmond](#); [Li Erikson](#); [Guy Gelfenbaum](#); [John Pearce](#)  
**Subject:** Re: Review Request: FWS led Resource Assessment of Coastal Resources for Arctic Refuge 1002 area  
**Date:** Thursday, February 22, 2018 10:47:47 AM  
**Attachments:** [1002 area Coastal Resources Assessment DRAFT 021318\\_pcmsc.docx](#)

---

Hi Wendy - Please find attached comments and additions to your summary from USGS-PCMSC. Let us know if you have any questions. You did a great job pulling this all together!

Best,  
Ann, Li, and Bruce

On Wed, Feb 14, 2018 at 4:14 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Coastal Colleagues,

Attached is a word document that I would be grateful for your input on. The FWS is assembling assessments of the state of the science needed to inform oil and gas development on the Arctic Coastal Plain 1002 area of the Arctic National Wildlife Refuge. Attached is an initial draft that I have put together following conversations with some but not all of you. I have tried to capture the key products that would inform decisionmaking, although we do not know how or when exploration and development activities may occur. Thus, I began with a list of possible activities that might occur in or affect the coast and barrier islands. After looking through the Beaufort Sea Lagoons LTER proposal, the BOEM website and other resources provided by USGS, I hope I have captured the existing and needed science. I am impressed, and sure that there are many more studies that are not individually represented here. As I came to the last section, I was not sure what additional studies would be needed, as this seemed comprehensive albeit early in the baseline studies for many of the ecosystem studies. Please add any specific studies you feel are important and we will include those in future research prioritization studies.

I am close to the deadline for this which is Friday the 16<sup>th</sup>, but recognize that is insufficient time for meaningful input. I will submit what I have Friday, but welcome your comments through Thursday next week (February 22<sup>nd</sup>). If calling me is easier, please do so. Otherwise you can use tracked changes to share your feedback with me directly.

Thank you in advance for your time,

Sincerely,

Wendy

Dr. Wendy M. Loya, Coordinator

Arctic Landscape Conservation Cooperative (LCC)

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Ann E. Gibbs  
US Geological Survey  
Pacific Coastal and Marine Science Center  
2885 Mission Street  
Santa Cruz, CA 95050

831-460-7540

[agibbs@usgs.gov](mailto:agibbs@usgs.gov)

**From:** [Wendy Loya](#)  
**To:** [Patrick Lemons](#)  
**Subject:** Budget info  
**Date:** Thursday, February 22, 2018 11:55:42 AM  
**Attachments:** [Polar Bear Table for MMS.xlsx](#)  
**Importance:** High

---

Hi Patrick,

Attached is the spreadsheet I created from Polar Bear v3.0 Resource Assessment (turned in on 1/1/2018). I would be grateful if you could complete columns M and N (Cost per year and minimum # of years), and fix any other rankings (1=yes, 0=no).

Polar Bears are clearly a priority and we would like to send this information to BLM (along with some other priorities) by Friday COB.

Thanks, give a call if you have questions,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Sarah Conn](#)  
**Subject:** 1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx  
**Date:** Thursday, February 22, 2018 12:19:27 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx](#)

---

Help.

**From:** [Wendy Loya](#)  
**To:** [Mark Miller](#)  
**Subject:** RE: 1002 resource information assessment for Acoustic Environment  
**Date:** Thursday, February 22, 2018 1:09:12 PM

---

Remind me to get back to you on this Monday if ok? I have a deadline with a nearly impossible task for tomorrow ☺

I think it is fine to share the resource assesement you wrote; we will have these for 15 subjects and those could be part of the conversation you describe?

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:** Miller, Mark [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]  
**Sent:** Thursday, February 22, 2018 8:20 AM  
**To:** Wendy M. Loya, PhD  
**Subject:** Re: 1002 resource information assessment for Acoustic Environment

Hi Wendy -

Do you have any concerns about sharing this document with others? I'm thinking of its relevance to the STAP working group (WG) that is supposed to be working on the aircraft disturbance issue.

And related, it strikes me that this is a uniquely opportune time for STAP "...to provide advice [to NSSI OG / DOI decision-makers] on proposed inventory, monitoring, and research functions" related to prospective development in the Arctic Refuge. If true, a challenge is that STAP currently might be perceived as rather weak in terms of the number, expertise, and (possibly) credibility of its combined membership. (I'm expecting only 5 or 6 STAP members to attend the upcoming meeting; 5 is quorum.) But since the WGs include SSC and others with additional expertise, there is the potential for WGs to prepare specific, actionable recommendations that can be voted upon and submitted by STAP to OG. I've been pondering this specifically in relation to aircraft disturbance and noise, but pertains to other WGs as well.

Given your current role and extensive past and current experience with STAP, I'd appreciate your thoughts - what (if anything) would be especially helpful and influential from STAP to OG at this particular moment in time?

Thanks in advance.

Mark

---

**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*

On Fri, Feb 16, 2018 at 2:01 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:  
Wendy -

Here's our team's contribution for the Acoustic Environment.

Mark

---

**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*

**From:** [Conn, Sarah](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: 1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx  
**Date:** Thursday, February 22, 2018 2:31:25 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018\\_Conn.xlsx](#)

---

Hi Wendy,

Given the super short time frame you are on I couldn't do much more than a very cursory review. I tried to consider how the study would inform the regulation of oil and gas activities (in terms of timing, location, methods, avoidance and minimization measures). All of the studies will provide information about how the ecosystem of the area functions. However, I tried to step that down to what the "regulators" actually need and use to manage the resources under our various authorities. Clearly I'm most familiar with Ecological Services area and so add whatever grains of salt you need and please remember this is a very off the cuff assessment and I'm just providing it to you in case it helps inform your thinking as you try to balance everything.

Rather than give you a "score column" I've provided comments (in yellow) so you can consider and ignore as you see fit as you make the final list.

Hope it helps.

Sarah

On Thu, Feb 22, 2018 at 10:19 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

| Help.

**From:** [Conn, Sarah](#)  
**To:** [Wendy Loya](#)  
**Subject:** One more thought  
**Date:** Thursday, February 22, 2018 2:36:30 PM

---

If / when money for studies actually comes in I think it will be essential to have the people who will actually be using the data review / be part of the specific project development, and if appropriate have biometric review. That will help ensure that say for example, the habitat map developed actually meets the needs of say Ecological Services as we recommend mitigation measures, or the surveys are appropriate and sufficient for NRDA etc. etc. We really don't want them developed by one person in a vacuum.

Cheers,

Sarah

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Drew Crane](#)  
**Subject:** Re: MMPA Scenarios update  
**Date:** Thursday, February 22, 2018 3:38:09 PM

---

Wendy,  
Understand - thank you for the follow-up.  
Nicole

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

On Thu, Feb 22, 2018 at 1:24 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Nicole,

Drew has mentioned that Marine Mammals would be briefing our Regional Director on the Gantt chart for permitting scenarios this Friday 2/23. Greg is away from the office at a Federal Subsistence Board Meeting through the end of the week, so that briefing will be delayed until next week. We hope to be able to follow up with you as soon as possible, the date depending on the earliest time they can get Greg scheduled.

Thanks,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: 1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx  
**Date:** Thursday, February 22, 2018 3:39:49 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018\\_Conn.xlsx](#)

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**From:** Conn, Sarah [mailto:[sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov)]  
**Sent:** Thursday, February 22, 2018 12:31 PM  
**To:** Wendy Loya  
**Subject:** Re: 1002 Arctic Refuge Resource Assessment Table v.OSA Feb 2018.xlsx

Hi Wendy,

Given the super short time frame you are on I couldn't do much more than a very cursory review. I tried to consider how the study would inform the regulation of oil and gas activities (in terms of timing, location, methods, avoidance and minimization measures). All of the studies will provide information about how the ecosystem of the area functions. However, I tried to step that down to what the "regulators" actually need and use to manage the resources under our various authorities. Clearly I'm most familiar with Ecological Services area and so add whatever grains of salt you need and please remember this is a very off the cuff assessment and I'm just providing it to you in case it helps inform your thinking as you try to balance everything.

Rather than give you a "score column" I've provided comments (in yellow) so you can consider and ignore as you see fit as you make the final list.

Hope it helps.

Sarah

On Thu, Feb 22, 2018 at 10:19 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Help.

**From:** [Wendy Loya](#)  
**To:** [James Wilder](#)  
**Cc:** [Patrick Lemons](#); [Drew Crane](#)  
**Subject:** Polar Bear Table for MMS.xlsx  
**Date:** Thursday, February 22, 2018 6:04:43 PM  
**Attachments:** [Polar Bear Table for MMS.xlsx](#)

---

Hi Jim,

We have been asked to compile “essential information needs” by BLM and turn that in to them this week, which means I need this information by 10am tomorrow if possible, so I can get to Greg to review before submitting.

I am looking for cost estimates for the two studies highlighted in the attached table. These emerge as two of the most important information needs for the 1002 area overall in the near term, as they provide data that are essential to regulatory needs or seismic. For the 2<sup>nd</sup> one, it would be the first part to “Continue, expand, and improve den detection, mapping, and monitoring activities to understand why there is higher use of habitat within the 1002 area and greater reproductive success for land-based dens,” but not to do the predictive modeling at this time, as the first part needs to be established.

It is not to say that the other projects are not important, but that those are part of a longer term science plan that we will continue to work broadly to develop. If you have concerns about these selections, let me know x3532

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:** [Sara Longan](#)  
**Subject:** Health Impact Assessment estimate  
**Date:** Thursday, February 22, 2018 6:34:12 PM

---

Hi Sara,

I am wondering if you could help me come up with a ballpark estimate of an HIA for the 1002 area for an EIS that would be similar in scope to the IAP? I see in your Resource Assessment that 'Project duration, timelines and costs cannot be determined without understanding the scope and phase (e.g., exploration, leasing, development, transportation, etc.) of the potential Health Baseline Assessment project.'

I think we can assume that all of that will be evaluated in an EIS , and we would want to do the best available science the first time given the timing imperative and importance to north slope communities. Thus, we'd like to include this in a list of our highest priority information needs. It is specific to the EIS more than other studies, but I want to make sure to communicate the importance of allocating funding to this.

To account for uncertainty, I am just looking for where it might fall in the following categories:

\$0-50K

\$51K -100k

\$100K-\$200K

200K +

Thank you for any additional help you can provide. I am trying to get this together by 10am Friday if possible.

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:** [Michaelson, Julie](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Edits to NHD request  
**Date:** Thursday, February 22, 2018 6:41:59 PM  
**Attachments:** [wendy\\_1002.docx](#)

---

Hi Wendy,  
Attached would be my additions to your Purpose and Need sections. Costs should include field survey to determine accuracy of modeled directional flow.  
Julie

On Thu, Feb 22, 2018 at 4:15 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Julie,

Would you please review the following information and make any edits? I welcome language in the Purpose and Need that makes it more clear why FWS would needs to invest in this from a regulatory perspective, if relevant.

Resource	Purpose	Need	Recommended Action
	Develop NHDPlus High Resolution hydrography framework, which extends the hydrologic network seamlessly across the terrain by including streams, lakes, and associated catchment areas	Develop and share current and future knowledge on water resources necessary for development and habitat conservation with managers, industry	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, othe Cooperating Agencies)

Thank you so much,

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)

--

Julie Michaelson  
Wetlands Coord R7  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, Alaska 99503  
(907)786-3675

**From:** [Wendy Loya](#)  
**To:** [Stephen Arthur](#); [Eric Taylor](#); [Drew Crane](#); [John Trawicki](#); [Steve Berendzen](#); [Joanna Fox](#); [Sarah Conn](#); [Paul Leonard](#); [Carl Johnson](#)  
**Subject:** Draft Priority Information Needs for 1002 Area for your review  
**Date:** Thursday, February 22, 2018 7:21:43 PM  
**Attachments:** [FWS 2018 Priority Information Needs for 1002 area DRAFT 022218.xlsx](#)  
**Importance:** High

---

Hi colleagues,

Attached is a draft list of priority information needs for the 1002 area derived from the Resource Assessments that you and/or your staff have contributed to. We had more than 86 recommended studies, and want to thank you all for helping Paul and I identify criteria for narrowing this down.

I think we have representation of half of the subjects and I think all of these studies have immediate value in one or more of the following areas: Regulatory, Needed to identify Stip/ROPS or needed in the EIS, or needed for exploration permitting phase.

All of the studies in the list will be considered in our broader, longer term science plan, and since all of the leads did a really good job on their Resource Assessments, we'll be able to start working on that right after we submit this to BLM for their Monday briefing with HQ.

I am still working on cost estimates, and hope to fill those in by 1pm tomorrow; and can use help identifying partners and any feedback on the list by noon as well. I have a pretty full morning, so written response would be ideal, or catch me on the phone between 8-9am or from 1130-1 pm.

Survey says....

Best,  
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:** [Patrick Lemons](#)  
**To:** [Wendy Loya](#)  
**Cc:** [James Wilder](#); [Drew Crane](#); [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)  
**Subject:** Re: Polar Bear Table for MMS.xlsx  
**Date:** Thursday, February 22, 2018 8:50:19 PM

---

Please hold off on responding to this. I spoke with Mary today and there's a meeting scheduled for tomorrow that will likely influence how we respond here.

Sent from my iPhone

On Feb 22, 2018, at 4:04 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Jim,

We have been asked to compile "essential information needs" by BLM and turn that in to them this week, which means I need this information by 10am tomorrow if possible, so I can get to Greg to review before submitting.

I am looking for cost estimates for the two studies highlighted in the attached table. These emerge as two of the most important information needs for the 1002 area overall in the near term, as they provide data that are essential to regulatory needs or seismic. For the 2<sup>nd</sup> one, it would be the first part to "Continue, expand, and improve den detection, mapping, and monitoring activities to understand why there is higher use of habitat within the 1002 area and greater reproductive success for land-based dens," but not to do the predictive modeling at this time, as the first part needs to be established.

It is not to say that the other projects are not important, but that those are part of a longer term science plan that we will continue to work broadly to develop. If you have concerns about these selections, let me know x3532

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)

<Polar Bear Table for MMS.xlsx>

**From:** [Wendy Loya](#)  
**To:** [Cribley, Bud](#)  
**Subject:** Re:  
**Date:** Friday, February 23, 2018 8:39:00 AM

---

Hi Bud,

There is, did you receive the invite via The Regional Directors office? I asked the admin to add you to it and believe she did or at least tried. Greg is at a Subsistence meeting but Mary Culligan will lead it, she is the Assoc Regional Director for the Ecological Services division in the region. I am not sure what is in the agenda. Let me know if you don't have the invite with Call in number.

Wendy

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 Feb 23, 2018, at 06:35, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Wendy,

Is there a 1002 call today at 9:00 am your time? Will you be on it?

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)**

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review  
**Date:** Friday, February 23, 2018 8:54:37 AM  
**Attachments:** [SA additions.xlsx](#)

---

Hi Wendy,

I would recommend a few additional high-priority studies (see attached): we need better information on the distribution of birds (shorebirds, waterfowl, and raptors) so as to identify important nesting, feeding, and staging areas for these species. This is an immediate need in order to plan for locating and constructing infrastructure.

We also need better info on snow: patterns of deposition and accumulation, phenology of snowmelt, etc. because this will be needed to plan for winter travel.

Finally: the study of abundance and effects of predators on nesting success of shorebirds and waterfowl was identified as a priority for both birds and mammals. This is baseline info that is needed to assess future impacts and must be obtained prior to development. (There are other baseline studies on the list, but I think this one is the most critical, given the likelihood of potential changes in predator populations and their importance to birds).

Thanks for the chance to comment on 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 Thu, Feb 22, 2018 at 5:21 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi colleagues,

Attached is a draft list of priority information needs for the 1002 area derived from the Resource Assessments that you and/or your staff have contributed to. We had more than 86 recommended studies, and want to thank you all for helping Paul and I identify criteria for narrowing this down.

I think we have representation of half of the subjects and I think all of these studies have immediate value in one or more of the following areas: Regulatory, Needed to identify Stip/ROPS or needed in the EIS, or needed for exploration permitting phase.

0000007276

All of the studies in the list will be considered in our broader, longer term science plan, and since all of the leads did a really good job on their Resource Assessments, we'll be able to start working on that right after we submit this to BLM for their Monday briefing with HQ.

I am still working on cost estimates, and hope to fill those in by 1pm tomorrow; and can use help identifying partners and any feedback on the list by noon as well. I have a pretty full morning, so written response would be ideal, or catch me on the phone between 8-9am or from 1130-1 pm.

Survey says....

Best,

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)  
**To:** [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)  
**Subject:** FW: Arctic CCP  
**Date:** Friday, February 23, 2018 9:39:37 AM

---

**From:** Lor, Socheata [mailto:[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)]  
**Sent:** Wednesday, February 21, 2018 3:13 PM  
**To:** Brady, Stephanie; Wendy Loya; Doug Damberg; Mitch Ellis; Berendzen, Steve  
**Subject:** Fwd: Arctic CCP

Hi All,

Here's what I sent to Greg. Sorry I forgot to copy all of you on it.

### 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:** Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
**Date:** Wed, Feb 21, 2018 at 3:11 PM  
**Subject:** Re: Arctic CCP  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

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**

~~~~~  
*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 Wed, Feb 21, 2018 at 10:21 AM, Greg Siekaniec <[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

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: Draft Priority Information Needs for 1002 Area for your review  
**Date:** Friday, February 23, 2018 10:10:10 AM  
**Attachments:** [SA additions.xlsx](#)

---

FYI. Also, got an email back from Polar Bear people saying they might be changing their study requests :/

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, February 23, 2018 6:54 AM  
**To:** Wendy Loya  
**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review

Hi Wendy,

I would recommend a few additional high-priority studies (see attached): we need better information on the distribution of birds (shorebirds, waterfowl, and raptors) so as to identify important nesting, feeding, and staging areas for these species. This is an immediate need in order to plan for locating and constructing infrastructure.

We also need better info on snow: patterns of deposition and accumulation, phenology of snowmelt, etc. because this will be needed to plan for winter travel.

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Thanks for the chance to comment on 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 Thu, Feb 22, 2018 at 5:21 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi colleagues,

Attached is a draft list of priority information needs for the 1002 area derived from the Resource Assessments that you and/or your staff have contributed to. We had more than 86 recommended studies, and want to thank you all for helping Paul and I identify criteria for narrowing this down.

I think we have representation of half of the subjects and I think all of these studies have immediate value in one or more of the following areas: Regulatory, Needed to identify Stip/ROPS or needed in the EIS, or needed for exploration permitting phase.

All of the studies in the list will be considered in our broader, longer term science plan, and since all of the leads did a really good job on their Resource Assessments, we'll be able to start working on that right after we submit this to BLM for their Monday briefing with HQ.

I am still working on cost estimates, and hope to fill those in by 1pm tomorrow; and can use help identifying partners and any feedback on the list by noon as well. I have a pretty full morning, so written response would be ideal, or catch me on the phone between 8-9am or from 1130-1 pm.

Survey says....

Best,  
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:** [Wilder, James](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Patrick Lemons](#); [Drew Crane](#); [Colligan, Mary](#)  
**Subject:** Re: Polar Bear Table for MMS.xlsx  
**Date:** Friday, February 23, 2018 10:21:47 AM

---

Hi Wendy,

There are still some internal discussions going on about this request.

Will try to get a response to you as soon as possible. Jim

On Thu, Feb 22, 2018 at 4:04 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Jim,

We have been asked to compile “essential information needs” by BLM and turn that in to them this week, which means I need this information by 10am tomorrow if possible, so I can get to Greg to review before submitting.

I am looking for cost estimates for the two studies highlighted in the attached table. These emerge as two of the most important information needs for the 1002 area overall in the near term, as they provide data that are essential to regulatory needs or seismic. For the 2<sup>nd</sup> one, it would be the first part to “Continue, expand, and improve den detection, mapping, and monitoring activities to understand why there is higher use of habitat within the 1002 area and greater reproductive success for land-based dens,” but not to do the predictive modeling at this time, as the first part needs to be established.

It is not to say that the other projects are not important, but that those are part of a longer term science plan that we will continue to work broadly to develop. If you have concerns about these selections, let me know x3532

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

0000007282

Anchorage, Alaska

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--

James M. Wilder  
Marine Mammals Management, Polar Bear Program Leader  
U.S. Fish and Wildlife Service  
1011 E. Tudor Rd., MS341  
Anchorage, AK 99503

Office Phone: [\(907\) 786-3913](tel:9077863913)  
Email: [james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)  
Fax: [\(907\) 786-3816](tel:9077863816)

**From:** [Leonard, Paul](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: Draft Priority Information Needs for 1002 Area for your review  
**Date:** Friday, February 23, 2018 10:31:47 AM

---

Well.....these were all studies that were on the edge for us so I can see folks wanting them. However, I hope this doesn't balloon.

On Fri, Feb 23, 2018 at 8:10 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

FYI. Also, got an email back from Polar Bear people saying they might be changing their study requests :/

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, February 23, 2018 6:54 AM  
**To:** Wendy Loya  
**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review

Hi Wendy,

I would recommend a few additional high-priority studies (see attached): we need better information on the distribution of birds (shorebirds, waterfowl, and raptors) so as to identify important nesting, feeding, and staging areas for these species. This is an immediate need in order to plan for locating and constructing infrastructure.

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is needed to assess future impacts and must be obtained prior to development. (There are other baseline studies on the list, but I think this one is the most critical, given the likelihood of potential changes in predator populations and their importance to birds).

Thanks for the chance to comment on 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 Thu, Feb 22, 2018 at 5:21 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

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Survey says....

Best,

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)

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Wendy Loya](#)  
**To:** [Sara Longan](#)  
**Subject:** RE: Estimated HIA cost for 1002  
**Date:** Friday, February 23, 2018 10:47:21 AM

---

Thank you Sara, very helpful!

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:** Longan, Sara [mailto:[slongan@blm.gov](mailto:slongan@blm.gov)]  
**Sent:** Friday, February 23, 2018 8:22 AM  
**To:** Wendy Loya  
**Subject:** Estimated HIA cost for 1002

Hello Wendy,

A conservative costs estimate for 1002 planning would be 51K - 100K. As I am sure you know, the total cost can fluctuate depending on "how" the contract is developed, who manages it, etc.

I have helped the Corps and BOEM on all/most past North Slope HIA contract bids. When it comes to that time for BLM/FWS, I am happy to help those efforts also. I've also maintained close working relationships with DHSS and the contractors who have expertise in developing HIAs.

Hope this helps.

Thanks,

--  
Sara Longan, PhD  
Executive Director  
North Slope Science Initiative (NSSI)  
907-271-3431

**From:** [Loya, Wendy](#)  
**To:** [Bud Cribley](#)  
**Subject:** Fwd: 1002 ongoing work inventory  
**Date:** Friday, February 23, 2018 11:28:55 AM  
**Attachments:** [2018\\_0320\\_ANSSR\\_0214draft.docx](#)

---

what we are talking about :)

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

**From:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Date:** Wed, Feb 21, 2018 at 9:18 PM  
**Subject:** RE: 1002 ongoing work inventory  
**To:** Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Ameer Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Jenifer Kohout <[jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Mitch Ellis <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>, Patrick Lemons <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>, Sara Boario <[sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)>, Sarah Conn <[sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>

Hi Mary et al.,

This request coincides nicely with a request that NSSI sent out today in a call for information from agencies/industry/institutions for the Annual North Slope Studies Review Meeting on March 20th. The NSSI request asks for more information, which I think has good value for communicating why we are doing what we are doing:

1. What studies are being conducted where, by whom (PI), when, and for what duration?
2. What specific management decisions and decision makers are these studies designed to inform?
3. What products will be produced by these studies and when?
4. How will resulting information be shared with decision makers, North Slope communities, and the general public?

You can see in the attachment that all DOI, plus NOAA, ADFG and Industry will be making similar tables, so if this information was sent to DC, there would be similar information shared.

The announcement is attached; I am scheduled to present for FWS, but I don't have to if someone else wants to 😊

Last year contributions for each division were compiled by Rick Lanctot, Jenifer Kohout, Steve Arthur and myself.

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

**Sent:** Wednesday, February 21, 2018 8:19 PM

**To:** Steve Berendzen; Ameer Howard; Doug Damberg; Jenifer Kohout; Joanna Fox; Mitch Ellis; Patrick Lemons; Sara Boario; Sarah Conn; Socheata Lor; Stephanie Brady; Wendy Loya; Drew Crane

**Subject:** 1002 ongoing work inventory

I have attached an example spreadsheet being used by USGS to track ongoing work in the 1002 area to brief headquarters. Greg would like us to explore creating and maintaining a similar inventory for FWS. I am sending this now with the hope we can discuss it during our call/meeting on Friday.

Thanks

--

Mary Colligan

Assistant Regional Director

Fisheries and Ecological Services

U.S. Fish and Wildlife Service, Alaska Region

0000007289

1011 E. Tudor Road, MS-361

Anchorage, AK 99503

907-786-3505

cell: 907-223-5945

**From:** [Wendy Loya](#)  
**To:** [Stephen Arthur](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** RE: Draft Priority Information Needs for 1002 Area for your review  
**Date:** Friday, February 23, 2018 12:38:49 PM

---

Steve,

Just another bit of information, I spoke with ExxonMobil on Tuesday about how they accessed Pt. Thompson and one of the points they made is that they worked with DNR who has a transect of monitoring sites along the Haul Road, I believe, and they set up their own "stakes" from West to East which were thermistors to measure soil temp (and potentially air temp at 6" to estimate if reading air temp or snow temp) to provide more site specific information for their need to get out ASAP, and that data gets transmitted to DNR to support decisionmaking on state lands. I think with a new, high accuracy veg map we can then work with Industry to help define where thermistor monitoring should go when they have a specific project proposal. With "we" meaning BLM and/or FWS depending on how all is supposed to be administered.

Paul is having conversations today with USGS and others from Matthew Sturm's lab and so all this is on our radar as important. I also got to watch a little bit of the FLIR video from the recent survey flown by Marine Mammals. Christopher Putnam said the ravines were very full of snow, but there was exposed vegetation on some uplands in the region they were (western half of 1002). They found 4 bears, one was 12 mi inland. They want a better DEM and habitat model (snow drift model), so I think we can make that request more robust to meet needs BLM/FWS has for working with Industry to help them get out quickly but with enough information to protect the environment.

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Friday, February 23, 2018 10:19 AM  
**To:** Wendy Loya  
**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review

Hi Wendy,

I would estimate costs of waterfowl and shorebird surveys at \$150,000 per year, and a minimum of 3 years would be needed to account for inter-annual variation. I can't add these to the table because those columns are restricted.

I do think we will need info on snow pack characteristics, but so will industry, so if we don't do the surveys, they undoubtedly will need to in order to plan their operations. I don't think the DNR guidelines are sufficient to protect a sensitive area like the Refuge, and I have seen the

damage resulting from winter travel that follows those guidelines. The problem is that DNR can only sample from a limited number of sites, and this does not account for the wide variation in snow pack across the north slope. And, snow accumulation in the Refuge is quite different, so someone will certainly need to do some research and modeling 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 Fri, Feb 23, 2018 at 8:50 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Steve,

I can talk through our thought process later (and the feedback we got from Sarah Conn), but in the meantime, would you be able to fill in columns M and N for the first one? I could see snow persisting in seismic areas being a problem for nesting birds so Paul and I can talk through that one again.

I don't see adding the raptors and egg predators at this time. We are potentially 8 or more years from Development, so there is time and these will be in the FWS Science Plan for 2018. Industry can be required to survey for Raptors prior to development; I don't know that I perceive raptors to be foraging habitat limited by seismic activities. We struggled with the snow one. I think this is something we should do, but not sure it belongs on the list to share with BLM; I talked with BLM and we decided that having a vegetation map was important towards helping us guide industry towards snow depth monitoring prior to seismic activity. We can revisit the snow one and see if we can make it a more robust study plan.

Will keep in mind your perspective as we move through the day's conversations.

Thank you very much for your feedback and help with all this.

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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]

**Sent:** Friday, February 23, 2018 6:54 AM

**To:** Wendy Loya

0000007292

**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review

Hi Wendy,

I would recommend a few additional high-priority studies (see attached): we need better information on the distribution of birds (shorebirds, waterfowl, and raptors) so as to identify important nesting, feeding, and staging areas for these species. This is an immediate need in order to plan for locating and constructing infrastructure.

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Thanks for the chance to comment on this.

Steve

**Stephen M. Arthur, Ph.D.**

*Supervisory Wildlife Biologist  
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Wendy

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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)

**From:** [Wendy Loya](#)  
**To:** [Sarah Conn](#); [Julie Michaelson](#)  
**Cc:** [Stephen Arthur](#); [Eric Taylor](#); [Drew Crane](#); [John Trawicki](#); [Steve Berendzen](#); [Joanna Fox](#); [Paul Leonard](#)  
**Subject:** RE: Draft Priority Information Needs for 1002 Area for your review  
**Date:** Friday, February 23, 2018 12:57:41 PM

---

Sarah,

Thanks for that feedback. I spoke with Julie Michaelson about the wetlands map, as it was on our first list. We talked through it and it led to the pathway that we would ask for the vegetation map and the NDHD hydrography mapping as the veg map would support seismic and that the hydrography would help with water use permits, and would be achievable with the IFSAR that was just collected for the 1002 area. I perceived that the wetlands map was most critical during development. Thus, it would be a high priority either next year or soon after. Julie estimated it would take 18 mo to develop.

When talking with BLM, they said they have never permitted water withdrawals from rivers, and only water from specific lakes in winter to support development. They recently got a summer lake water withdrawal permit for GMT 1, and that river water has been used outside of NPRA. So we included the river monitoring request and NDHD to get to first info on integrated (surface, groundwater) hydrology.

Call me if you still think wetland mapping is a priority this year, please 😊 I welcome further informed discussion on all of priorities, so please don't take any of this as "I tried to tell Wendy and she resisted." Persist 😊

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:** Conn, Sarah [mailto:[sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov)]  
**Sent:** Friday, February 23, 2018 10:44 AM  
**To:** Wendy Loya  
**Cc:** Stephen Arthur; Eric Taylor; Drew Crane; John Trawicki; Steve Berendzen; Joanna Fox; Paul Leonard; Carl Johnson  
**Subject:** Re: Draft Priority Information Needs for 1002 Area for your review

Can I add a very loud and insistent plea for wetland mapping to be included. I'm sure it could be done in combination with veg mapping but it is one of the most fundamental and useful things that Ecol. Services uses on every project. We are always pestering applicants / BLM / COE to ensure we have a good wetland classification map for big development projects. While they can be done by remote sensing some ground truthing is much preferred.

Thanks,

Sarah

On Thu, Feb 22, 2018 at 5:21 PM, 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](#)  
**To:** [James Wilder](#)  
**Subject:** RE: Polar Bear Table for MMS.xlsx  
**Date:** Friday, February 23, 2018 3:09:36 PM

---

Thank you!

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

**From:** Wilder, James [mailto:[james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)]  
**Sent:** Friday, February 23, 2018 1:07 PM  
**To:** Wendy Loya; Colligan, Mary  
**Cc:** Patrick Lemons; Drew Crane  
**Subject:** Re: Polar Bear Table for MMS.xlsx

Project 1- 2018: \$450K, beginning annually in 2019: \$2.5 million  
Project 2- 2018: \$220K, beginning annually in 2019: \$360K

On Fri, Feb 23, 2018 at 10:41 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Thanks, can you break that down into annual costs if that is not, and how many years minimum?  
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:** Wilder, James [mailto:[james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)]  
**Sent:** Friday, February 23, 2018 10:33 AM  
**To:** Wendy Loya  
**Cc:** Patrick Lemons; Drew Crane  
**Subject:** Re: Polar Bear Table for MMS.xlsx

Hi Wendy,

Our estimate of the cost to conduct those two studies are \$2.95 million and \$1.70 million respectively.

Please let me know if you need any more info. Best, Jim

On Thu, Feb 22, 2018 at 4:04 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
Hi Jim,

We have been asked to compile “essential information needs” by BLM and turn that in to them this week, which means I need this information by 10am tomorrow if possible, so I can get to Greg to review before submitting.

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It is not to say that the other projects are not important, but that those are part of a longer term science plan that we will continue to work broadly to develop. If you have concerns about these selections, let me know x3532

Thank you,  
Wendy

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

--

James M. Wilder  
Marine Mammals Management, Polar Bear Program Leader  
U.S. Fish and Wildlife Service  
[1011 E. Tudor Rd.](#), MS341  
Anchorage, AK 99503

Office Phone: [\(907\) 786-3913](tel:9077863913)  
Email: [james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)  
Fax: [\(907\) 786-3816](tel:9077863816)

--

James M. Wilder  
Marine Mammals Management, Polar Bear Program Leader  
U.S. Fish and Wildlife Service

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Email: [james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)  
Fax: [\(907\) 786-3816](tel:(907)786-3816)

**From:** [Michaelson, Julie](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Thank you for reviewing  
**Date:** Friday, February 23, 2018 3:58:53 PM

---

Wendy

Sounds fine. Might want to consider "hydrography" or "surface water flow map" in place of "watershed map" in the Purpose.

Could add to verbage : These data products would **establish a current baseline** for the project area.

Julie

On Fri, Feb 23, 2018 at 1:08 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

I decided to go non-technical on this. So if you could review this I would be very grateful.

Purpose: Develop an updated Wetlands Inventory Map, including watershed map, and a Vegetation Map

Need: To permit and/or guide Seismic, tundra travel, water/snow use and infrastructure planning

There is significant efficiency and cost savings in the coordinated development of a Wetland Map with associated hydrography, and a vegetation map, as much of the cost is associated with field work to validate the classifications for each component, and each informs the other. The 1002 area needs an updated Wetlands Inventory that our Ecological Services division uses in every BLM or Corp of Engineers project. Coupling that with National Hydrologic Database Hydrography mapping is important to understanding the hydrology, especially recharge of lakes and rivers, and habitat in the 1002 area which is very different than NPRA. An accurate, updated vegetation map is essential for working with Industry to permit seismic and winter tundra travel, as the vegetation of the 1002 area is much taller than in NPRA, including large areas of tussock tundra which is susceptible to damage. When NSSI updated the North Slope Vegetation Map in collaboration with Ducks Unlimited, the 1002 area was not field-validated and is therefore lower accuracy and thus insufficient to meet planning needs. FWS would work with BLM and others to define the scope to meet the management needs and then hire a contractor(s) to complete the task as defined. Timeline to completion is approximately 1.5 to 2 years.

Thank you for your help in talking through this,

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)

--

Julie Michaelson

Wetlands Coord R7

U.S. Fish and Wildlife Service

1011 East Tudor Road

Anchorage, Alaska 99503

(907)786-3675

**From:** [Trawicki, John](#)  
**To:** [Wendy Loya](#)  
**Subject:** Fwd: ANWR 1002 Area Boundary  
**Date:** Friday, February 23, 2018 4:14:52 PM

---

Lets talk early next week. perhaps get on Tuesday agenda.

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

**From:** **Brewer, John** <[john\\_brewer@fws.gov](mailto:john_brewer@fws.gov)>  
**Date:** Fri, Feb 23, 2018 at 12:48 PM  
**Subject:** Fwd: ANWR 1002 Area Boundary  
**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>

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

**From:** **Salz, Ron** <[ron\\_salz@fws.gov](mailto:ron_salz@fws.gov)>  
**Date:** Wed, Feb 21, 2018 at 7:15 AM  
**Subject:** Re: ANWR 1002 Area Boundary  
**To:** Forest Knutsen <[fknutsen@resourcedata.com](mailto:fknutsen@resourcedata.com)>, John Brewer <[john\\_brewer@fws.gov](mailto:john_brewer@fws.gov)>  
**Cc:** "Nudel, Martha" <[martha\\_nudel@fws.gov](mailto:martha_nudel@fws.gov)>, Karen Rank <[karen\\_rank@fws.gov](mailto:karen_rank@fws.gov)>

Hello Forest,

I am forwarding your request to John Brewer, the Supervisory Cartographer in the Anchorage office. This is not a GIS data layer that I have at my disposal.

While you may not need them, here are a few web links that could assist you. .

The first is the Alaska USFWS map download web page:  
<https://fws.maps.arcgis.com/apps/MapSeries/index.html?appid=eea5634ad84c4e8ca9c40fe670bfb321>

The next is the USGS site for the ANWR 1002 area: <https://energy.usgs.gov/RegionalStudies/Alaska/ANWR1002.aspx>

The Refuge home page: <https://www.fws.gov/refuge/arctic/map.html>

Best,  
Ron

---

Ron Salz, Chief Cartographer  
National Wildlife Refuge System  
U.S. Fish & Wildlife Service Headquarters  
[5275 Leesburg Pike](#), MS: NWRS  
Falls Church, VA, 22041-3803  
703-358-2404 (office)

0000007302

[ron\\_salz@fws.gov](mailto:ron_salz@fws.gov)

On Tue, Feb 20, 2018 at 2:20 PM, Forest Knutsen <[fknutsen@resourcedata.com](mailto:fknutsen@resourcedata.com)> wrote:

Sounds good. Thanks everyone.

---

**From:** Nudel, Martha [mailto:[martha\\_nudel@fws.gov](mailto:martha_nudel@fws.gov)]

**Sent:** Tuesday, February 20, 2018 10:18 AM

**To:** Forest Knutsen <[fknutsen@resourcedata.com](mailto:fknutsen@resourcedata.com)>; Ron Salz <[ron\\_salz@fws.gov](mailto:ron_salz@fws.gov)>; Karen Rank <[karen\\_rank@fws.gov](mailto:karen_rank@fws.gov)>

**Subject:** Re: ANWR 1002 Area Boundary

This email comes from an external source, so remember, Think Before You Click!

Thank for your email.

I understand that you want the GIS boundaries of the 1002 area of the Arctic National Wildlife Refuge. Karen Rank and Ron Salz are expected to be back in the office tomorrow or the next day. They are our GIS leaders, and will be able to help you.

I also understand from our conversation that you found 1995 boundaries online but also found contradictory information available on state or other websites. Ron and Karen may ask you about those.

thanks

Martha Nudel

Division of Visitor Services and Communications

National Wildlife Refuge System

[5275 Leesburg Pike](#)

MS: NWRS

Falls Church, VA 22041-3803

0000007303

703-358-1858

<http://www.fws.gov/refuges/>

On Tue, Feb 20, 2018 at 2:13 PM, Forest Knutsen <[fknutsen@resourcedata.com](mailto:fknutsen@resourcedata.com)> wrote:

Hi Martha,

Thanks for the help.

Forest

**Forest Knutsen**

GIS Programmer/Analyst

Resource Data, Inc.

907-743-7543 direct

[fknutsen@resourcedata.com](mailto:fknutsen@resourcedata.com)

[resourcedata.com](http://resourcedata.com)

--

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

0000007304

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

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** Draft Priority Information Needs for 1002  
**Date:** Friday, February 23, 2018 4:17:37 PM  
**Attachments:** [FWS 2018 Priority Information Needs \(complete\) for 1002 area DRAFT 022318.xlsx](#)

---

Hi John,

Attached are the information needs that FWS staff found likely to be our highest priority, with only the ones highlighted at the top in Green being the ones we would send to BLM.

To the left you can see the ranking columns in (in Yellow) for the criteria we considered in getting down from 86 to 11. I definitely welcome your feedback on your perceived priorities and also edits to where you would see USGS as a partner and we have not identified that.

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:** [John Trawicki](#)  
**Subject:** FW: shapefile of ANWR 1002 area  
**Date:** Friday, February 23, 2018 4:21:14 PM  
**Attachments:** [ArcticNWR.gdb.zip](#)

---

John,

I think in many cases we are overthinking the request for the boundary, unless it comes down to regulatory purposes.

Greta sent this one out for a recent request.

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:** Burkart, Greta [mailto:[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)]  
**Sent:** Tuesday, February 20, 2018 12:54 PM  
**To:** Christopher Arp  
**Cc:** Wendy Loya; John Brewer; Joshua Bradley  
**Subject:** Re: shapefile of ANWR 1002 area

Hi Chris,

The attached geodatabase has the coastal plain, 1002 area boundary. I can't attest to the accuracy, but it meets my mapping needs.

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Tue, Feb 20, 2018 at 9:42 AM, Christopher Arp <[cdarp@alaska.edu](mailto:cdarp@alaska.edu)> wrote:  
Hi Wendy and John,

Yes, just an outline of 1002 area is all I need. I making a basic slide to show the need for

understanding winter water supply for Bill Schnabel to take to DC with him next week. I can share it with you if you like once completed.

Thanks,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: 907-474-2783  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)  
<http://ine.uaf.edu/werc/people/chris-arp/>  
<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>  
-----

On Mon, Feb 19, 2018 at 5:08 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:  
John,  
Can you share a GIS shapefile of the 1002 area with Dr. Chris Arp at UAF?

Chris,  
Funny you should ask this, it turns out not to be that straightforward ☺

I am copying John Brewer at FWS who was recently asked to share said shapefile with BLM. I assume a general outline is sufficient without needing to be accuracy at the plat level.

Thanks,  
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)

**From:** Christopher Arp [mailto:[cdarp@alaska.edu](mailto:cdarp@alaska.edu)]  
**Sent:** Monday, February 19, 2018 5:04 PM  
**To:** Joshua Bradley  
**Cc:** Wendy Loya; Burkart, Greta  
**Subject:** shapefile of ANWR 1002 area

Hi Josh,

I'm wondering if you have a shapefile of the 1002 area you could share? Thought I could find

one easy enough on web, but have found it yet.

Thanks,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: [907-474-2783](tel:907-474-2783)  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)  
<http://ine.uaf.edu/werc/people/chris-arp/>  
<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>  
-----

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#)  
**Subject:** 2018 Priority Information Needs Tables  
**Date:** Friday, February 23, 2018 6:24:54 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.RD 022318.xlsx](#)

---

Hi Greg and Karen,

Attached are the short and long version of the tables that capture the studies recommended by FWS Staff and partners to fill information gaps for the 1002 area from the Resource Assessments completed 2/16/18. The 11 studies highlighted in green are the ones that emerged as the most important based on one or all of these criteria: 1) Regulatory need, 2) need to identify Stipulations/BMPs in writing the EIS or completing the EIS in other ways, or 3) pertain to Exploration (primarily seismic activity). Paul Leonard and I have worked with all the 1002 POCs, plus Marine Mammals staff, Steve Arthur, Sarah Conn and John Pearce at USGS to get to this final list, and felt we had concurrence. The specifics of the studies will be fleshed out with key partners and knowledge-holders, with the potential primary partners listed in the table.

The remainder of the list are studies that are also important, but not our most immediate needs. We will work to build those into a robust Science Plan for the 1002 area in the coming months, knowing it is a living, evolving document as we learn more along the way.

While you review it, I am also awaiting a comment back from John Pearce at USGS, and will clean up the table to present to BLM. Our goal was to have it to Ted Murphy by 6am Monday so he could discuss it in his Monday briefing. I will be available this weekend to get it to the finish line with your feedback after your meetings end today. This was the fastest I could pull this together and ensure we could explain and justify each request for its priority purpose and need.

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](#)  
**Cc:** [Mary Colligan](#)  
**Subject:** RE: 2018 Priority Information Needs Tables  
**Date:** Friday, February 23, 2018 7:17:28 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.RD 022318.xlsx](#)

---

Hi Greg,

It is my understanding the USGS and FWS co-developed this list for the Polar Bear studies, and that funding to do the studies in our table is not secured. I believe USGS was funded to collar 30 bears this year, and that is included in the USGS study list you refer to, but I believe is a one-time effort and does not overlap with the request in this table.

I am cc'ing Mary here, as it occurs to me that I am not sure if USGS would have funding to contribute to contribute to funding the priority needs, or if we are asking on behalf of both agencies. Mary, the spreadsheet is attached that describes the two polar bear studies we put forth as priorities, highlighted green.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Friday, February 23, 2018 5:03 PM  
**To:** Wendy Loya  
**Cc:** Karen Clark  
**Subject:** Re: 2018 Priority Information Needs Tables

Wendy,

Thank you for stopping by the Office. Are any of these recommendations also on the list provided by us concerning polar bears or USGS in their latest science activities? In other words, are doubling up on our ideas in multiple reports/requests/documents?

Greg

Sent from my iPhone

On Feb 23, 2018, at 4:24 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg and Karen,

Attached are the short and long version of the tables that capture the studies recommended by FWS Staff and partners to fill information gaps for the 1002 area from the Resource Assessments completed 2/16/18. The 11 studies highlighted in green are the ones that emerged as the most important based on one or all of these criteria: 1) Regulatory need, 2) need to identify Stipulations/BMPs in writing the EIS or completing the EIS in other ways, or 3) pertain to Exploration (primarily seismic activity). Paul Leonard and I have worked with all the 1002 POCs, plus Marine Mammals staff, Steve Arthur, Sarah Conn and John Pearce at USGS to get to this final list, and felt we had concurrence. The specifics of the studies will be fleshed out with key partners and knowledge-holders, with the potential primary partners listed in the table.

The remainder of the list are studies that are also important, but not our most immediate needs. We will work to build those into a robust Science Plan for the 1002 area in the coming months, knowing it is a living, evolving document as we learn more along the way.

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Thank you,  
Wendy

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

<1002 Arctic Refuge Resource Assessment Table v.RD 022318.xlsx>

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Cc:** [Mary Colligan](#)  
**Subject:** RE: 2018 Priority Information Needs Tables  
**Date:** Friday, February 23, 2018 7:23:17 PM

---

I am not aware if USGS is creating a similar list as we are for [new information needs](#); I will email John Pearce, but I had the impression this was a request to FWS only, and that USGS typically responds to the studies that DOI agencies recommend.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Friday, February 23, 2018 5:20 PM  
**To:** Wendy Loya  
**Cc:** Mary Colligan  
**Subject:** Re: 2018 Priority Information Needs Tables

I would like to know if the studies will be showing up in multiple lists. This may be awkward if they are.

Greg

Sent from my iPhone

On Feb 23, 2018, at 5:17 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg,

It is my understanding the USGS and FWS co-developed this list for the Polar Bear studies, and that funding to do the studies in our table is not secured. I believe USGS was funded to collar 30 bears this year, and that is included in the USGS study list you refer to, but I believe is a one-time effort and does not overlap with the request in this table.

I am cc'ing Mary here, as it occurs to me that I am not sure if USGS would have funding to contribute to contribute to funding the priority needs, or if we are asking on behalf of both agencies. Mary, the spreadsheet is attached that describes the two polar bear studies we put forth as priorities, highlighted green.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Friday, February 23, 2018 5:03 PM  
**To:** Wendy Loya  
**Cc:** Karen Clark  
**Subject:** Re: 2018 Priority Information Needs Tables

Wendy,

Thank you for stopping by the Office. Are any of these recommendations also on the list provided by us concerning polar bears or USGS in their latest science activities? In other words, are doubling up on our ideas in multiple reports/requests/documents?

Greg

Sent from my iPhone

On Feb 23, 2018, at 4:24 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg and Karen,

Attached are the short and long version of the tables that capture the studies recommended by FWS Staff and partners to fill information gaps for the 1002 area from the Resource Assessments completed 2/16/18. The 11 studies highlighted in green are the ones that emerged as the most important based on one or all of these criteria: 1) Regulatory need, 2) need to identify Stipulations/BMPs in writing the EIS or completing the EIS in other ways, or 3) pertain to Exploration (primarily seismic activity). Paul Leonard and I have worked with all the 1002 POCs, plus Marine Mammals staff, Steve Arthur, Sarah Conn and John Pearce at USGS to get to this final list, and felt we had concurrence. The specifics of the studies will be fleshed out with key partners and knowledge-holders, with the potential primary partners listed in the table.

The remainder of the list are studies that are also important, but not our most immediate needs. We will work to build those into a robust Science Plan for the 1002 area in the coming months, knowing it is a living, evolving document as we learn more along the way.

While you review it, I am also awaiting a comment back from John Pearce at USGS, and will clean up the table to present to BLM. Our goal was to have it to Ted Murphy by 6am Monday so he could discuss it in his Monday briefing. I will be available this weekend to get it to the finish line with your feedback after your meetings end today. This was the fastest I could pull this together and ensure we could explain and justify each request for its priority purpose and need.

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)

<1002 Arctic Refuge Resource Assessment Table v.RD  
022318.xlsx>

<1002 Arctic Refuge Resource Assessment Table v.RD 022318.xlsx>

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Subject:** is USGS also preparing a priority studies list for the 1002 area?  
**Date:** Friday, February 23, 2018 7:27:27 PM

---

Hi John,

Greg Siekaniec raised the question as to whether USGS is creating a list of priority recommended studies similar to the one I have been working on and asked for your feedback on. We would not want to have duplicative requests, such as for the co-developed polar bear studies we included.

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:** [Greg Siekaniec](#)  
**To:** [Colligan, Mary](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: 2018 Priority Information Needs Tables  
**Date:** Friday, February 23, 2018 11:58:33 PM

---

Mary,

Can you attach the FWS and USGS priority information needs document. I think we need to cross walk it with the one Wendy has been working on. We can either remove those that represent the same request in the FWS/USGS and move both forward or ensure we have the priority polar bear research needs incorporated into this recent version. Otherwise we will confuse the Department.

Right now I'm thinking we need to keep the polar bear priority science need document and formulate the current version (Wendy et al.) into a priority or a gaps document in addition to what we already submitted. Then we provide Ted with two documents by Monday am. This way we cannot be viewed as trying to double dip or changing our priority needs.

I'm open to thoughts and discussion. No need to respond this evening if you receive this but perhaps we can discuss in the morning.

Thanks you,

Greg

Sent from my iPhone

On Feb 23, 2018, at 8:07 PM, Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)> wrote:

This is the first time I am seeing this, but it looks like the first 2 polar bear studies are extracted from the polar bear priority information needs document we drafted jointly with USGS in late December/early January. Both of these projects have aspects that FWS would likely take the lead on and aspects that USGS would take the lead on. The dollar amount needed is a combined dollar amount, being requested on behalf of both agencies. Obviously the combined document we worked on with USGS had a number of other priority needs we identified as necessary to help inform our ESA and MMPA determinations. It appears those have been screened out as lower priority in this exercise. The third polar bear study identified in this spreadsheet, a snow distribution model was not identified as necessary to provide priority information needed for ESA and MMPA determinations in our joint exercise with USGS, so I am cannot really speak to how it emerged through this exercise as one of the top priorities nor can I provide additional information on the estimated costs.

I took a quick look at the full list of studies tab and note that USGS is listed as lead for a number of the polar bear information needs that should be FWS (specifically those related to review of mitigation measures in existing ITRs/IHAs).

On Fri, Feb 23, 2018 at 5:17 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Greg,

0000007317

It is my understanding the USGS and FWS co-developed this list for the Polar Bear studies, and that funding to do the studies in our table is not secured. I believe USGS was funded to collar 30 bears this year, and that is included in the USGS study list you refer to, but I believe is a one-time effort and does not overlap with the request in this table.

I am cc'ing Mary here, as it occurs to me that I am not sure if USGS would have funding to contribute to contribute to funding the priority needs, or if we are asking on behalf of both agencies. Mary, the spreadsheet is attached that describes the two polar bear studies we put forth as priorities, highlighted green.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]

**Sent:** Friday, February 23, 2018 5:03 PM

**To:** Wendy Loya

**Cc:** Karen Clark

**Subject:** Re: 2018 Priority Information Needs Tables

Wendy,

Thank you for stopping by the

Office. Are any of these recommendations also on the list provided by us concerning polar bears or USGS in their latest science activities? In other words, are doubling up on our ideas in multiple reports/requests/documents?

Greg

Sent from my iPhone

On Feb 23, 2018, at 4:24 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

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Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

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907.227.2942 (mobile)

<1002 Arctic Refuge Resource Assessment Table v.RD  
022318.xlsx>

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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:** [Pearce, John](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** Re: Draft Priority Information Needs for 1002  
**Date:** Saturday, February 24, 2018 9:54:22 AM

---

John, can you cal my cell? 227-2942 to discuss

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 Feb 24, 2018, at 07:48, Pearce, John <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)> wrote:

Hi Wendy,

I'm reading through these. How does this list relate to the assessment documents? Did these come from those write-ups? Also, just so I'm clear, this list is due back to your HQ by Monday morning and the assessment documents will be sent at that same time?

Thanks,  
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 23, 2018 at 2:17 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi John,

Attached are the information needs that FWS staff found likely to be our highest priority, with only the ones highlighted at the top in Green being the ones we would send to BLM.

To the left you can see the ranking columns in (in Yellow) for the criteria we considered in getting down from 86 to 11. I definitely welcome your feedback

on your perceived priorities and also edits to where you would see USGS as a partner and we have not identified that.

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:** [Greg Siekaniec](#)  
**To:** [Mary Colligan](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Information Needs Priority list discussion  
**Date:** Saturday, February 24, 2018 10:34:55 AM

---

Thank you. We'll join via the connection Wendy provided.

Sent from my iPhone

> On Feb 24, 2018, at 8:33 AM, Mary Colligan <mary\_colligan@fws.gov> wrote:

>

> I will join you guys at 9. I don't fly out until this afternoon

>

> Sent from my iPhone

>

>> On Feb 24, 2018, at 8:27 AM, Greg Siekaniec <greg\_siekaniec@fws.gov> wrote:

>>

>> Sounds good. Thank you Wendy.

>>

>> Sent from my iPhone

>>

>>> On Feb 24, 2018, at 8:26 AM, Wendy Loya <wendy\_loya@fws.gov> wrote:

>>>

>>> I just got off the phone with John Pearce. He said USGS is not putting together a list like this, and did not intend to as they were looking for direction from FWS and BLM on what is needed to be done. That said, he wanted to check with Amy and Grant Hildebrand to ensure that they agreed the polar bear projects were co-led by USGS and not led. John can get me further information today if he is able to reach them as he expect to.

>>>

>>> How about if we plan to talk at 9am? If Mary responds and is available, we can call into Instant Meeting Audio # **b5-CIP** # **b5-CIP**. If it is just Greg and I as Mary is not available, I will call Greg's cell at that time.

>>>

>>> 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)

>>>

>>>

>>> -----Original Message-----

>>> From: Greg Siekaniec [[mailto:greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]

>>> Sent: Saturday, February 24, 2018 8:20 AM

>>> To: Wendy Loya

>>> Cc: Mary Colligan

>>> Subject: Re: Information Needs Priority list discussion

>>>

>>> Wendy,

>>>

>>> I'm available for a call anytime. Mary, are you traveling today and already  
>>> inflight?  
>>>  
>>> Greg  
>>>  
>>> Sent from my iPhone  
>>>  
>>>> On Feb 23, 2018, at 10:34 PM, Wendy Loya <wendy\_loya@fws.gov> wrote:  
>>>>  
>>>> Hi Greg and Mary,  
>>>>  
>>>> I might have had an incomplete understanding of other ways the polar  
>>>> bear studies in this list have been shared, as it sounds like it was  
>>>> already submitted? I thought Greg was referring to the list of  
>>>> studies USGS is doing in the 1002 area this summer. The version we  
>>>> had was v3.0 and was uploaded on 1/31/18 I believe. I spoke with Jim  
>>>> Wilder to ensure that the two studies we included were either FWS led  
>>>> or FWS-USGS Co-lead, as I knew that historically USGS does Beaufort bears  
>>>> and FWS does Chukchi Sea bears.  
>>>> Where you see USGS in other parts of the table that were not  
>>>> prioritized, that is in a column where we identified partners, where  
>>>> obvious or stated.  
>>>>  
>>>> We have saved all of the Resource Assessments in on the r7 Common  
>>>> drive in a folder titled 1002/working/Resource Assessments if you want to  
>>>> see others.  
>>>>  
>>>> Some of the items in the list evolved and hybridized this week as we  
>>>> talked with staff and partners about further details. The snow study  
>>>> is one of those. It originally started in response to Refuge Staff  
>>>> concerns about winter tundra travel impacts. As I watched FLIR video  
>>>> with Christopher Putnam this week, we talked about the need to refine  
>>>> the USGS model for bear habitat, and so Paul and I included that in  
>>>> snow study. Arctic LCC funded a Polar Bear Den drift model that I  
>>>> believe has good potential to be improved and could provide annual  
>>>> estimates of where enough snow accumulates based on topography, wind  
>>>> and snow October -November, prior to bears coming on shore to den in  
>>>> December/January. Craig Perham advised on that model, with snow scientist  
>>>> Glen Liston.  
>>>>  
>>>> The Hydrography/Wetlands/Vegetation is another one that hybridized,  
>>>> when Julie Michaelson explained how to ask for two and not the third  
>>>> and to not link the effort could triple the cost.  
>>>>  
>>>> My sense here tonight, and throughout the past few days is that this  
>>>> is a good effort on the part of our colleagues and deserves to have a  
>>>> little more time to vet and present in a meaningful way that  
>>>> non-experts will understand. I can bring it to a better place this  
>>>> weekend, but wonder if we want to brief BLM on it; as I think that  
>>>> could significantly improve communication of the information upwards.  
>>>> I believe Nicole said that there is a Monday briefing, which was our  
>>>> goal, but she may have also mentioned a Wednesday briefing.  
>>>>  
>>>> I am available to talk before 10am Saturday. Could also talk later in  
>>>> the day, after 3pm.  
>>>>  
>>>> 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)

>>>>

>>>> -----Original Message-----

>>>> From: Mary Colligan [[mailto:mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)]

>>>> Sent: Friday, February 23, 2018 10:04 PM

>>>> To: [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

>>>> Subject: Polar Bear Study Ideas for 1002 - 180104 v3 (3).docx

>>>>

>>>> Here is the polar bear document jointly drafted with USGS. This is  
>>>> the January version that includes a second table identifying near term  
>>>> FY18 funds needed to kick start the priority projects listed in the  
>>>> first table.

>>>>

>>>> Happy to talk in the morning if you would like.

>>>>

>>>> Thanks,

>>>> Mary

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Subject:** Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx  
**Date:** Sunday, February 25, 2018 6:53:06 PM  
**Attachments:** [Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx](#)

---

Hi Greg,

Attached is a still rough draft of the Priority Information Needs from the Resource Assessments to share with BLM. I am still working on formatting the table and proofreading/spellchecking the table; but wanted to get this to you for review before it gets too late. Formatting can be a time sink.

Feel free to call if you have questions as you go through it, I am in the office at 786-3532.

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](#)  
**Subject:** RE: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx  
**Date:** Sunday, February 25, 2018 8:21:20 PM

---

Got it, should have the whole thing back to you by 7pm 😊

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Sunday, February 25, 2018 6:06 PM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx

Wendy,

I edited in word on my personal computer so I'm hoping this comes through and you can see the track changes.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** Gregory Siekaniec <[\[REDACTED\]](mailto:greg_siekaniec@fws.gov)>  
**Date:** February 25, 2018 at 6:03:08 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Re: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx

On Feb 25, 2018, at 5:23 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Sent from my iPhone

Begin forwarded message:

**From:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Date:** February 25, 2018 at 4:53:06 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Priority Information Needs for the Arctic National Wildlife Refuge

0000007327

**1002 Area DRAFT v1 022518 docx.docx**

Hi Greg,

Attached is a still rough draft of the Priority Information Needs from the Resource Assessments to share with BLM. I am still working on formatting the table and proofreading/spellchecking the table; but wanted to get this to you for review before it gets too late. Formatting can be a time sink.

Feel free to call if you have questions as you go through it, I am in the office at 786-3532.

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)

<ATT00001.html><Priority Information Needs for the Arctic National Wildlife  
Refuge 1002 Area DRAFT v1 022518 docx.docx>

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Subject:** Final Priority Info Needs for 1002 Area document for sharing  
**Date:** Sunday, February 25, 2018 8:52:33 PM  
**Attachments:** [Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area Final 022518.docx](#)

---

Greg,

Attached is the final document. I included all of your edits, an edited table and then inserted the Polar Bear Needs document at the end, following Page 4. I gave it unique page numbers; PB 1-6.

Call or email if any further editing is needed.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Sunday, February 25, 2018 6:06 PM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx

Wendy,

I edited in word on my personal computer so I'm hoping this comes through and you can see the track changes.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** Gregory Siekaniec <[b6](mailto:greg_siekaniec@fws.gov)>  
**Date:** February 25, 2018 at 6:03:08 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Re: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx

On Feb 25, 2018, at 5:23 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

0000007329

Sent from my iPhone

Begin forwarded message:

**From:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Date:** February 25, 2018 at 4:53:06 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject:** Priority Information Needs for the Arctic National Wildlife Refuge  
1002 Area DRAFT v1 022518 docx.docx

Hi Greg,

Attached is a still rough draft of the Priority Information Needs from the Resource Assessments to share with BLM. I am still working on formatting the table and proofreading/spellchecking the table; but wanted to get this to you for review before it gets too late. Formatting can be a time sink.

Feel free to call if you have questions as you go through it, I am in the office at 786-3532.

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)

<ATT00001.html><Priority Information Needs for the Arctic National Wildlife  
Refuge 1002 Area DRAFT v1 022518 docx.docx>

0000007330

**From:** [Greg Siekaniec](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Final Priority Info Needs for 1002 Area document for sharing  
**Date:** Sunday, February 25, 2018 9:21:11 PM

---

Okay, I'll send to Ted, Nicole and acting state director. I'll cc you as well. Thanks you for your efforts and weekend work. Hope your ski was enjoyable and gave a much needed outdoor time.

Greg

Sent from my iPhone

On Feb 25, 2018, at 7:10 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Our target was Ted Murphy per his request of our information needs at the January 19<sup>th</sup> workshop BLM hosted for FWS to get an overview of Oil and Gas Program. If you want to include Nicole Hayes, she is the lead for the EIS, or I can send it to her Monday. [mnhayes@blm.gov](mailto:mnhayes@blm.gov)

I can share with 1002 POCs and Resource Assessment leads.

Thank you, and thanks for your understanding given it rolled into the weekend.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Sunday, February 25, 2018 7:06 PM  
**To:** Wendy Loya  
**Subject:** Re: Final Priority Info Needs for 1002 Area document for sharing

Thank you. I'll give it one last look and send. Who all is expecting this?

Sent from my iPhone

On Feb 25, 2018, at 6:52 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Greg,

Attached is the final document. I included all of your edits, an edited table and then inserted the Polar Bear Needs document at the end, following Page 4. I gave it unique page numbers; PB 1-6.

0000007331

Call or email if any further editing is needed.

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:** Greg Siekaniec [mailto:[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)]  
**Sent:** Sunday, February 25, 2018 6:06 PM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx

Wendy,

I edited in word on my personal computer so I'm hoping this comes through and you can see the track changes.

Greg

Sent from my iPhone

Begin forwarded message:

**From:** Gregory Siekaniec <[b6](mailto:greg_siekaniec@fws.gov)>  
**Date:** February 25, 2018 at 6:03:08 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Subject: Re: Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx**

On Feb 25, 2018, at 5:23 PM, Greg Siekaniec  
<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Sent from my iPhone

Begin forwarded message:

**From:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Date:** February 25, 2018 at 4:53:06 PM AKST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

**Subject: Priority Information Needs for the Arctic  
National Wildlife Refuge 1002 Area DRAFT v1  
022518 docx.docx**

Hi Greg,

Attached is a still rough draft of the Priority Information Needs from the Resource Assessments to share with BLM. I am still working on formatting the table and proofreading/spellchecking the table; but wanted to get this to you for review before it gets too late. Formatting can be a time sink.

Feel free to call if you have questions as you go through it, I am in the office at 786-3532.

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)

<ATT00001.html><Priority Information Needs for the  
Arctic National Wildlife Refuge 1002 Area DRAFT v1  
022518 docx.docx>

<Priority Information Needs for the Arctic National Wildlife Refuge  
1002 Area Final 022518.docx>

**From:** [Greg Siekaniec](mailto:Greg.Siekaniec)  
**To:** [t75murph@blm.gov](mailto:t75murph@blm.gov); [kmourits@blm.gov](mailto:kmourits@blm.gov); [mnhayes@blm.gov](mailto:mnhayes@blm.gov)  
**Cc:** [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov); [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)  
**Subject:** Final Priority Info Needs for 1002 Area document for sharing  
**Date:** Sunday, February 25, 2018 10:16:17 PM  
**Attachments:** [Untitled attachment\\_06292.htm](#)  
[Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area Final 022518.docx](#)

---

Ted,

Please find attached the priority information needs that have been identified by the multi-agency team, and others, regarding the coastal plain of Arctic Refuge. We have also included the earlier document concerning science needs for polar bear that was requested immediately following the passage of the Tax Act. The request was made knowing there are requirements of the endangered species act and marine mammal protection act that will need to be addressed in planning and permitting.

I did not want to combine the two documents at this time as it would likely confuse the discussion, and I'm not certain of the priority of polar bear science timing as it relates to the additional items noted for the area.

This should be viewed as a "living" document that may need some changes as we learn more of what it will take to conduct seismic/geophysical and development. We may be able to combine into "one" document if we can pull the planning group and subject matter experts together for discussions.

Thank you for your patience in letting us develop this as we engaged several disciplines and knowledgeable experts in the field of conservation and oil and gas development.

Please call with questions and we look forward to continuing to work towards your initiation of environment planning.

Greg

<ATT00001.html><Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area DRAFT v1 022518 docx.docx>

**From:** [Murphy, Ted](#)  
**To:** [Greg Siekaniec](#)  
**Cc:** [Karen Mouritsen](#); [Miriam \(Nicole\) Hayes](#); [Karen Clark](#); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov); [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)  
**Subject:** Re: Final Priority Info Needs for 1002 Area document for sharing  
**Date:** Monday, February 26, 2018 7:56:42 AM

---

Thanks Greg

Ted

On Sun, Feb 25, 2018 at 8:16 PM, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Ted,

Please find attached the priority information needs that have been identified by the multi-agency team, and others, regarding the coastal plain of Arctic Refuge. We have also included the earlier document concerning science needs for polar bear that was requested immediately following the passage of the Tax Act. The request was made knowing there are requirements of the endangered species act and marine mammal protection act that will need to be addressed in planning and permitting.

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Thank you for your patience in letting us develop this as we engaged several disciplines and knowledgeable experts in the field of conservation and oil and gas development.

Please call with questions and we look forward to continuing to work towards your initiation of environment planning.

Greg

<ATT00001.html><Priority Information Needs for the Arctic  
National Wildlife Refuge 1002 Area DRAFT v1 022518  
docx.docx>

--  
Ted A Murphy

0000007335

Alaska-Associate State Director  
907-271-5076

**From:** [Wendy Loya](#)  
**To:** [Brady, Stephanie](#)  
**Cc:** [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)  
**Subject:** Re: Final Priority Info Needs for 1002 Area document for sharing  
**Date:** Monday, February 26, 2018 9:39:46 AM

---

I will send out to everyone when I get in today. Long weekend getting it done and want to write a cover letter to Staff.

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 Feb 26, 2018, at 07:33, Brady, Stephanie <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)> wrote:

can you please share the attachment with me? thanks

[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

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

**From:** Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
**Date:** Mon, Feb 26, 2018 at 7:23 AM  
**Subject:** Fwd: Final Priority Info Needs for 1002 Area document for sharing  
**To:** [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov), [john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov), [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov),  
[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov), Mitch Ellis <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>,  
[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov), [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)

Thank you and your staff for working on this!

Soch

Sent from my iPhone

Begin forwarded message:

**From:** "Murphy, Ted" <[t75murph@blm.gov](mailto:t75murph@blm.gov)>  
**Date:** February 26, 2018 at 6:56:38 AM PST  
**To:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Cc:** Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>, "Miriam (Nicole) Hayes" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>, [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov),

[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov), [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)

**Subject: Re: Final Priority Info Needs for 1002 Area document for sharing**

Thanks Greg

Ted

On Sun, Feb 25, 2018 at 8:16 PM, Greg Siekaniec

<[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)> wrote:

Ted,

Please find attached the priority information needs that have been identified by the multi-agency team, and others, regarding the coastal plain of Arctic Refuge. We have also included the earlier document concerning science needs for polar bear that was requested immediately following the passage of the Tax Act. The request was made knowing there are requirements of the endangered species act and marine mammal protection act that will need to be addressed in planning and permitting.

I did not want to combine the two documents at this time as it would likely confuse the discussion, and I'm not certain of the priority of polar bear science timing as it relates to the additional items noted for the area.

This should be viewed as a "living" document that may need some changes as we learn more of what it will take to conduct seismic/geophysical and development. We may be able to combine into "one" document if we can pull the planning group and subject matter experts together for discussions.

Thank you for your patience in letting us develop this as we engaged several disciplines and knowledgeable experts in the field of conservation and oil and gas development.

Please call with questions and we look forward to continuing to work towards your initiation of environment planning.

Greg

<ATT00001.html><Priority Information  
Needs for the Arctic National Wildlife  
Refuge 1002 Area DRAFT v1 022518  
docx.docx>

0000007338

--

Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

**From:** [Sarena Selbo](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Data Sharing Policy  
**Date:** Monday, February 26, 2018 10:59:51 AM  
**Attachments:** [Untitled attachment\\_06277.htm](#)  
[R7DataSharingInterimPolicy\\_2018.docx](#)

---

Hi Wendy. Since 1002 is referenced, I'd like your feedback on the attached. Josh is on this RSI team - feel free to pull him in on your feedback to me. I'll wait to share with the RDT until you review.

Begin forwarded message:

**From:** "Frost, Charles" <[charles\\_frost@fws.gov](mailto:charles_frost@fws.gov)>  
**Date:** February 26, 2018 at 8:51:23 AM AKST  
**To:** Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Cc:** "Osnas, Erik" <[erik\\_osnas@fws.gov](mailto:erik_osnas@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>  
**Subject:** Data Sharing Policy

Hi Sarena- as we discussed before the holidays, the Data Management Working Group was divided on releasing a "data sharing" policy that defines the goal of "sharable" data and a "data management" policy that defines the implementation of a sharing plan. I am passing you the resulting Data Sharing Policy that makes it clear that our goal in the region should be to provide appropriate and timely data to the public. How we get there (what most people refer to as data management) should be left up to the programs, though we are happy to provide alternatives at each step. This is especially relevant with the 1002 decisions coming up and we have an opportunity here to set the standard for how USFWS should respond to similar requests. Our next step is to request that the RDT set up a governance structure for data management that defines responsibilities and holds people accountable for their actions regarding management or mismanagement of their data. I look forward to answering any questions you might have. Thanks-

Chuck Frost

**From:** [Wendy Loya](#)  
**To:** [Sarena Selbo](#)  
**Subject:** RE: Data Sharing Policy  
**Date:** Monday, February 26, 2018 11:06:30 AM

---

I will talk with Josh and Paul about this today and we'll get back to you by COB or tomorrow.

Thanks

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:** Sarena Selbo [mailto:[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)]  
**Sent:** Monday, February 26, 2018 9:00 AM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Data Sharing Policy

Hi Wendy. Since 1002 is referenced, I'd like your feedback on the attached. Josh is on this RSI team - feel free to pull him in on your feedback to me. I'll wait to share with the RDT until you review.

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**From:** "Frost, Charles" <[charles\\_frost@fws.gov](mailto:charles_frost@fws.gov)>  
**Date:** February 26, 2018 at 8:51:23 AM AKST  
**To:** Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Cc:** "Osnas, Erik" <[erik\\_osnas@fws.gov](mailto:erik_osnas@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>  
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Chuck Frost

**From:** [Wendy Loya](#)  
**To:** [Joshua Bradley](#); [Paul Leonard](#)  
**Subject:** FW: Data Sharing Policy  
**Date:** Monday, February 26, 2018 11:07:51 AM  
**Attachments:** [R7DataSharingInterimPolicy\\_2018.docx](#)

---

Good morning,

I hope you guys had a good weekend? More snow? We got 3" in this morning and it is still snowing ☺

Let's talk about the attached (and cover email below) during PTSD today at 130pm.  
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:** Sarena Selbo [mailto:[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)]  
**Sent:** Monday, February 26, 2018 9:00 AM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Data Sharing Policy

Hi Wendy. Since 1002 is referenced, I'd like your feedback on the attached. Josh is on this RSI team - feel free to pull him in on your feedback to me. I'll wait to share with the RDT until you review.

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**Date:** February 26, 2018 at 8:51:23 AM AKST  
**To:** Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Cc:** "Osnas, Erik" <[erik\\_osnas@fws.gov](mailto:erik_osnas@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>  
**Subject:** Data Sharing Policy

Hi Sarena- as we discussed before the holidays, the Data Management Working Group was divided on releasing a "data sharing" policy that defines the goal of "sharable" data and a "data management" policy that defines the implementation of a sharing plan. I am passing you the resulting Data Sharing Policy that makes it clear that our goal in the region should be to provide appropriate and timely data to the public. How we get there (what most people refer to as data management) should be left up to the programs, though we are happy to provide alternatives at each step. This is especially relevant with the 1002 decisions coming up and we have an opportunity here to set the standard for how USFWS should respond to similar requests. Our next step is to request that the RDT set up a governance structure for data management that defines responsibilities and

holds people accountable for their actions regarding management or mismanagement of their data. I look forward to answering any questions you might have. Thanks-

Chuck Frost

**From:** [Miller, Mark](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs  
**Date:** Monday, February 26, 2018 1:55:07 PM

---

Congratulations for getting this done - so well, in such a short time frame.

I'm glad you're in the middle of it.....

---

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

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"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*

On Mon, Feb 26, 2018 at 9:58 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Colleagues,

Attached is a list of the studies that were submitted yesterday by Greg Siekaniec to BLM per their request at the January 19<sup>th</sup> Oil and Gas overview. At that meeting, BLM asked on the spot what our priority information needs were to get to an EIS for Oil and Gas for the 1002 area. We deferred until you all had the chance to compile the Resource Assessments you completed by February 16<sup>th</sup>.

The Resource Assessments are very good, and show the effort that you all took in reaching out to BLM Arctic Field office staff and other experts to understand what information we need to make decision, identifying what we have and studies that will help fill knowledge gaps. When compiled all together, we had over 86 recommended studies.

I then worked with your division points of contact (Drew Crane, Eric Taylor, John Trawicki, Steve Berendzen, and Joanna Fox) as well as Steve Arthur, Sarah Conn and Paul Leonard to identify a prioritization framework. Paul and I further consulted with the NPRA Table 2.3 Stipulations; BLM Arctic Field Staff, industry, FWS staff and others to come up with a list of 10 Studies, *not including Polar Bears*, that appear to be needed to: 1) meet an near-term regulatory need, 2) needed to identify Stipulations/BMPs in writing the EIS or completing the EIS in other ways, or 3) pertained to Exploration (primarily seismic activity).

Thus, our focus was on needing to start now to have information in the next few months to next 2 years. We combined some studies recommended separately, and that changed some budgets that were provided. The details of most of the studies in the table need to be fleshed

out, and we need a budget(!). Paul and I will work with you all to share what further information we may have and help facilitate those conversations with additional partners as needed. Polar Bears were removed from consideration as high priority studies as those research needs had already been identified and submitted to BLM/FWS.

You won't see all of the important work that was recommended in the table, but that does not mean it shouldn't be done. We thought some of it could wait a little while, even if just a year. Other studies may be done by industry once they hold leases in as soon as 2 years. Also, note that it may take about 10 years to begin development, so we have time to start baseline studies for pre-development data, which will be one of our next priorities. We'll know more about the potential economically recoverable oil estimates when USGS completes its re-analysis of the vintage 2D seismic later in 2018, and that and the information we hope to collect from the studies in the Priority Information Needs Table will help us target our studies starting in 2019.

John Martin, Paul Leonard and I will continue to work with you all to compile the full Resource Assessments into a science plan for the Arctic Refuge 1002 Area. It will be a "living" document as we learn more and work with BLM on the EIS for Leasing, once that starts.

I welcome any questions you have about the process or list.

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:** [Pearce, John](#)  
**To:** [Wendy Loya](#); [Miriam \(Nicole\) Hayes](#)  
**Subject:** USGS pubs and NEPA annotations  
**Date:** Monday, February 26, 2018 5:17:07 PM

---

Hi Wendy and Nicole,

We've developed a web list of recent USGS publications that could be relevant for decision making in Alaska and the Arctic. For each publication, the "view pub" link provides a quick NEPA-related annotation, the final abstract of the paper and a link to the online version of the publication.

We will continue to update this list as new and relevant papers become available.

This site is: <https://alaska.usgs.gov/products/pubs/arctic/index.php>

Please let me know if additional or other kinds of information summaries from USGS science would be helpful.

Best,  
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>

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Subject:** FW: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs  
**Date:** Monday, February 26, 2018 5:17:22 PM  
**Attachments:** [Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area Final 022518.docx](#)

---

Hi John,

Thank you again for your help this weekend in working through the FWS identified priorities for clarity. Attached is the final product, and the cover email I wrote to the Resource Assessment leads is below. Greg shared the list with Ted Murphy and BLM Sunday evening in anticipation of their briefing at noon today. Don't know any specifics about that, only know what I described.

Talk to you soon,  
Wendy

---

**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Monday, February 26, 2018 9:59 AM  
**To:** Drew Crane; Eric Taylor; Joanna Fox; John Trawicki; Stephanie Brady; Steve Berendzen; John Martin; Paul Leonard; Greta Burkart; Angela Matz; Mark Miller; Janet Jorgenson; Randy Brown; Christopher Latty; Stephen Arthur; Edward Decleva; Tracy Fischbach; Jennifer Reed; Sara Longan; Hollis Twitchell; Roger Kaye; Ted Swem; Joshua Bradley  
**Cc:** Sarena Selbo; Mary Colligan; '[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)'; Doug Damberg; Carl Johnson; Sarah Conn  
**Subject:** Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs

Dear Colleagues,

Attached is a list of the studies that were submitted yesterday by Greg Siekaniec to BLM per their request at the January 19<sup>th</sup> Oil and Gas overview. At that meeting, BLM asked on the spot what our priority information needs were to get to an EIS for Oil and Gas for the 1002 area. We deferred until you all had the chance to compile the Resource Assessments you completed by February 16<sup>th</sup>.

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budget(!). Paul and I will work with you all to share what further information we may have and help facilitate those conversations with additional partners as needed. Polar Bears were removed from consideration as high priority studies as those research needs had already been identified and submitted to BLM/FWS.

You won't see all of the important work that was recommended in the table, but that does not mean it shouldn't be done. We thought some of it could wait a little while, even if just a year. Other studies may be done by industry once they hold leases in as soon as 2 years. Also, note that it may take about 10 years to begin development, so we have time to start baseline studies for pre-development data, which will be one of our next priorities. We'll know more about the potential economically recoverable oil estimates when USGS completes its re-analysis of the vintage 2D seismic later in 2018, and that and the information we hope to collect from the studies in the Priority Information Needs Table will help us target our studies starting in 2019.

John Martin, Paul Leonard and I will continue to work with you all to compile the full Resource Assessments into a science plan for the Arctic Refuge 1002 Area. It will be a "living" document as we learn more and work with BLM on the EIS for Leasing, once that starts.

I welcome any questions you have about the process or list.

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:** [Pearce, John](#)  
**To:** [Wendy Loya](#); [Miriam \(Nicole\) Hayes](#)  
**Subject:** Maps  
**Date:** Monday, February 26, 2018 5:35:23 PM

---

Hi Wendy and Nicole,

I just tried to share 3 maps with you from the 1987 Arctic Refuge Resource Assessment that I told you about a few weeks ago. Let me know if that didn't work and I can try sending a different link. They are very large files.

Turns out the maps are in the publication web link below, but are a bit hard to read.

Clough, N.K., Patton, P.C., and Christiansen, A.C., eds., 1987, Arctic National Wildlife Refuge, Alaska, coastal plain resource assessment—Report and recommendation to the Congress of the United States and final legislative environmental impact statement: Washington, D.C., U.S. Fish and Wildlife Service, U.S. Geological Survey, and Bureau of Land Management, v. 1, 208 p, accessed January 9, 2018, at <https://pubs.er.usgs.gov/publication/70039559>.

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:** [Pearce, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Miriam \(Nicole\) Hayes](#)  
**Subject:** Re: ANWR maps - Invitation to collaborate  
**Date:** Monday, February 26, 2018 6:09:53 PM

---

Yeah, we are having a hard time with them as well. Let me try again.

In the meantime, you can view the maps in plates 1 through 3 at this link: <https://pubs.er.usgs.gov/publication/70039559>

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 Mon, Feb 26, 2018 at 4:06 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi John,

I downloaded but they did not open. I could come by tomorrow with a thumb drive and then give directly to Nicole when I meet with her tomorrow afternoon?

But thanks for scanning!

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)

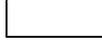
---

**From:** John Pearce (via Google Drive) [mailto:[drive-shares-noreply@google.com](mailto:drive-shares-noreply@google.com)]  
**Sent:** Monday, February 26, 2018 3:32 PM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Cc:** [mnhayes@blm.gov](mailto:mnhayes@blm.gov)  
**Subject:** ANWR maps - Invitation to collaborate

[jpearce@usgs.gov](mailto:jpearce@usgs.gov) has invited you to **contribute to** the following shared folder:



[ANWR maps](#)

 Maps from 1987 Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment.

[Open](#)

---

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

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



0000007351

**From:** [Wendy Loya](#)  
**To:** [Aaron Poe](#); [Karen Murphy](#)  
**Subject:** FW: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs  
**Date:** Monday, February 26, 2018 6:35:03 PM  
**Attachments:** [Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area Final 022518.docx](#)

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What we did last week...

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**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Monday, February 26, 2018 9:59 AM  
**To:** Drew Crane; Eric Taylor; Joanna Fox; John Trawicki; Stephanie Brady; Steve Berendzen; John Martin; Paul Leonard; Greta Burkart; Angela Matz; Mark Miller; Janet Jorgenson; Randy Brown; Christopher Latty; Stephen Arthur; Edward Decleva; Tracy Fischbach; Jennifer Reed; Sara Longan; Hollis Twitchell; Roger Kaye; Ted Swem; Joshua Bradley  
**Cc:** Sarena Selbo; Mary Colligan; '[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)'; Doug Damberg; Carl Johnson; Sarah Conn  
**Subject:** Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs

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take about 10 years to begin development, so we have time to start baseline studies for pre-development data, which will be one of our next priorities. We'll know more about the potential economically recoverable oil estimates when USGS completes its re-analysis of the vintage 2D seismic later in 2018, and that and the information we hope to collect from the studies in the Priority Information Needs Table will help us target our studies starting in 2019.

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I welcome any questions you have about the process or list.

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:** [Taylor, Eric](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FWS-BLM Weekly Check-in on Coastal Plain 1002  
**Date:** Tuesday, February 27, 2018 1:31:44 PM

---

All good. When you think I can help out, don't hesitate to ask.

Eric

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

On Tue, Feb 27, 2018 at 11:29 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Eric,

That sounds fine. I think when the EIS begins, the meeting will be more widely relevant and warrant division input. I think the ball is mostly in BLM's court at this stage. I'd like to keep you on invite list and you can continue to review the agenda weekly to see if it is relevant, does that sound good?

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:** Taylor, Eric [mailto:[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 10:44 AM  
**To:** Wendy Loya  
**Subject:** Re: FWS-BLM Weekly Check-in on Coastal Plain 1002

Hi Wendy -

I am not sure I can contribute much to these meetings and thus will not be attending. If there is a topic dealing with migratory birds, then I am more than happy to sit in.

Eric

Eric J. Taylor

Chief, Division of Migratory Bird Management

U.S. Fish and Wildlife Service

[1011 E. Tudor Road](#), MS 201

Anchorage, Alaska 99503-6199

907.786.3446 (office)

907.903.7210 (cell)

[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)

On Tue, Feb 27, 2018 at 8:46 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Good morning everyone,

Today's meeting with BLM for those of your in Anchorage will be in the Engineering Conference Room, in Suite 118.

Please add to today's agenda here: [https://docs.google.com/document/d/1WV13\\_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit](https://docs.google.com/document/d/1WV13_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit)

Best regards,

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)

-----Original Appointment-----

**From:** [mnhayes@blm.gov](mailto:mnhayes@blm.gov) [<mailto:mnhayes@blm.gov>] **On Behalf Of** [mnhayes@blm.gov](mailto:mnhayes@blm.gov)

**Sent:** Monday, February 05, 2018 1:56 PM

**To:** [mnhayes@blm.gov](mailto:mnhayes@blm.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov); [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov); [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov); [ssweet@blm.gov](mailto:ssweet@blm.gov); [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov); [njones@blm.gov](mailto:njones@blm.gov); [mdraper@blm.gov](mailto:mdraper@blm.gov); [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov); [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov); [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)

**Subject:** FWS-BLM Weekly Check-in on Coastal Plain 1002

**When:** Tuesday, February 27, 2018 2:00 PM-3:00 PM (UTC-09:00) Alaska.

**Where:** **65-CIP**, participant passcode # **65-CIP**

Please send any agenda topics to me by noon each Tuesday. We can have our first weekly check-in next week!

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#)  
**Subject:** FW: Bibliography  
**Date:** Tuesday, February 27, 2018 2:40:04 PM

---

FYI

**From:** Howard, Amee [mailto:[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 12:16 PM  
**To:** Wendy Loya  
**Cc:** Patrick Lemons  
**Subject:** Fwd: Bibliography

Hi Wendy,

FYI - It looks like the bibliography will have some additions in the near future. It seems appropriate that it is a living document of sorts!

Thanks so much!  
Amee

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

**From:** Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>  
**Date:** Tue, Feb 27, 2018 at 9:42 AM  
**Subject:** Re: Bibliography  
**To:** "Siekaniiec, Greg" <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>  
**Cc:** "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary" <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Hi Amee,

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.
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- 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 and index of ecosystem productivity. *Global Change Biology* 24:410-423.
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- 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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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

0000007360

e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

--

*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:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#)  
**Cc:** [John Trawicki](#)  
**Subject:** RE: Bibliography  
**Date:** Tuesday, February 27, 2018 3:16:01 PM

---

Hi Greg,

The studies highlighted in yellow are missing from the FWS and USGS bibliography. I can see why a few are missing (Wilson et al is Chukchi, French McCay et al is proceedings); John Martin likely missed the others due to some lack of clarity on the full list of FWS Staff. I believe he initially focused on Arctic Refuge Staff.

We can continue to work on the bibliography, asking each program for a list of staff names who may have had publications related to the 1002 area or broader north slope when inclusive of Arctic Refuge and also expand the search to the Beaufort Sea. How far do we go back is the next question, I think the current bibliography goes back into the 80s but becomes more incomplete as where we lack institutional knowledge on past employees.

Thank you,  
Wendy

**From:** Howard, Amee [mailto:[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 12:16 PM  
**To:** Wendy Loya  
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**Subject:** Fwd: Bibliography

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**Cc:** "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary" <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

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DUPLICATE

- 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.
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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)>

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Dr. Wendy M. Loya, Coordinator  
Arctic National Wildlife Refuge 1002 Coastal Plain Program  
Office of Science Applications  
Anchorage, Alaska  
907.786.3532 (office)  
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**Date:** January 30, 2018 at 5:08:59 PM EST  
**To:** Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>  
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Best,

Billy

**Billy Dove** | *Special Assistant*

0000007365

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)

--

*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:** [Lemons, Patrick](#)  
**To:** [Howard, Amee](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Bibliography  
**Date:** Tuesday, February 27, 2018 7:09:26 PM  
**Attachments:** [Polar Bear Bibliography - 1002.docx](#)

---

Hi Wendy,

Attached is the best we could pull together on short notice. I'm pretty sure we're missing an item or two and possibly were a little too encompassing in what's in the attached. My plan to review this thoroughly tonight and tomorrow morning. If you need to send something in ASAP, go ahead. Otherwise, I'll follow up with you once I've had a chance to thoroughly review the list and get back to you with any last changes. This should occur by noon tomorrow at the latest.

Let me know if that works for you and if you have any questions.  
Patrick

On Tue, Feb 27, 2018 at 12:16 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

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**Cc:** "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary" <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Hi Amee,

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.
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- 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.
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- 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.

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- 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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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)

--

*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](#)"

--

Patrick Lemons, Ph.D.

Chief, Marine Mammals Management

U.S. Fish and Wildlife Service

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Work: 907-786-3668

Cell: 907-717-6787

Fax: 907-786-3816

e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

**From:** [Wendy Loya](#)  
**To:** [Steve Berendzen](#); [Joanna Fox](#); [Greg Siekaniec](#); [Doug Damberg](#); [Socheata Lor](#); [Karen Clark](#)  
**Cc:** [John Trawicki](#); [Eva Patton](#); [Carl Johnson](#)  
**Subject:** Parties identified to date by BLM for 1002 Area Govt to Govt/ANSCA Consultation  
**Date:** Wednesday, February 28, 2018 10:35:13 AM

---

FYI.

John Trawicki will be working with you all if you have comments to BLM on the list.

BLM has drafted letters of invitation for Govt to Govt Consultation and ANSCA consultation as well as Cooperating Agency invites (have not gotten that list yet). It is unclear if AK or Washington will sign, and thus who will lead consultation (Greg may have more info than I do). I believe the intent is for the Deputy Secretary to deliver the letters next week.

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:** Hayes, Miriam (Nicole) [mailto:[mnhayes@blm.gov](mailto:mnhayes@blm.gov)]  
**Sent:** Wednesday, February 28, 2018 7:12 AM  
**To:** John Trawicki  
**Cc:** Wendy Loya  
**Subject:** Parties identified to date

For tribal consultation currently we have:

Native Village of Kaktovik  
Arctic Village  
Inupiat Community of the Arctic Slope (ICAS)  
Venetie  
Fort Yukon

For ANCSA Corp Consultation we have:

Arctic Slope Regional Corp  
Kaktovik Inupiat Corp

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

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#)  
**Subject:** More Polar Bear references for Bibliography  
**Date:** Wednesday, February 28, 2018 10:54:35 AM  
**Attachments:** [Polar Bear Bibliography - 1002.docx](#)

---

Hi John,

Attached are some more Polar Bear references for the bibliography. If John M was able to continue to work on this, I think it will be an ongoing document. I don't think it would require him doing more digging, but if we send the existing list to the subject matter experts that have not seen it, we should ask them for missing items that are publically available (again, not asking everyone to make citations for unpublished, interim reports).

If we moved it to a Google doc online, folks could add to it there and we could share that link with HQ.

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:** Lemons, Patrick [mailto:[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 5:09 PM  
**To:** Howard, Amee  
**Cc:** Wendy Loya  
**Subject:** Re: Bibliography

Hi Wendy,

Attached is the best we could pull together on short notice. I'm pretty sure we're missing an item or two and possibly were a little to encompassing in what's in the attached. My plan to review this thoroughly tonight and tomorrow morning. If you need to send something in ASAP, go ahead. Otherwise, I'll follow up with you once I've had a chance to thoroughly review the list and get back to you with an last changes. This should occur my noon tomorrow at the latest.

Let me know if that works for you and if you have any questions.  
Patrick

On Tue, Feb 27, 2018 at 12:16 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:  
Hi Wendy,

FYI - It looks like the bibliography will have some additions in the near future. It seems appropriate that it is a living document of sorts!

Thanks so much!

Amee

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

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

Date: Tue, Feb 27, 2018 at 9:42 AM

Subject: Re: Bibliography

To: "Siekaniiec, Greg" <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>

Cc: "Howard, Amea" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary"

<[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Hi Amea,

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.

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- 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,

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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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

Begin forwarded message:

0000007377

**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)

--

**Amee Howard**  
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<https://www.fws.gov/alaska/>  
"[Day in the Office](#)"

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Cell: 907-717-6787  
Fax: 907-786-3816  
e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

**From:** [Johnson, Carl](#)  
**To:** [Steve Berendzen](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Fwd: Urgent - Arctic & Izembek Info  
**Date:** Wednesday, February 28, 2018 11:10:54 AM  
**Attachments:** [BP Izembek Feb2018.docx](#)  
[Arctic NWR \(Feb 2018\) oil gas development R7 comments Final.docx](#)  
[1002 update for February 2018 Refuge Chiefs meeting V2.docx](#)

---

Steve,

Sorry for the quick turnaround, but, do you have any updates on the two attached briefing papers related to Arctic NWR? How about you Wendy? Due COB EST today.

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
1011 E. Tudor Road,  
Anchorage, AK 99503  
(907) 786-3584

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

**From:** **Lor, Socheata** <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
**Date:** Wed, Feb 28, 2018 at 7:27 AM  
**Subject:** Urgent - Arctic & Izembek Info  
**To:** "Johnson, Carl" <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, "Brady, Stephanie" <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, John Trawicki <[John\\_Trawicki@fws.gov](mailto:John_Trawicki@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Carl and Stephanie,

Can you coordinate to draft the BPs for Izembek and Arctic? Due COB Today, DC time.

Sorry about the quick turnaround.

I attached a BP on Izembek that I used to update the chiefs. I made some suggested edits. Also attached are bullets that Damberg used yesterday to brief the refuge chiefs, and sort of a fact sheet on Arctic.

Let me know if you have questions.

**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: Ellis, Mitch** <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>

**Date:** Wed, Feb 28, 2018 at 3:57 AM

**Subject:** Urgent - Arctic & Izembek Info

**To:** Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Cynthia would like to have current status info on the Izembek and Arctic issues by COB today. Do we have a current BP for each? Maybe a short timeline if you had that for yesterday? Let's talk this morning about this. She needs it for their meeting with the NWRA Board Friday. She and Steve Guertin are representing the Service their.

---

Mitch Ellis  
Acting Chief, Division of Natural Resources  
Headquarters, National Wildlife Refuge System  
US Fish and Wildlife Service  
(703)358-2660 wk  
(907)947-4416 mob

**From:** [Santos, Lynne](#)  
**Bcc:** [fw7allusers-dynamic@fws.gov](mailto:fw7allusers-dynamic@fws.gov)  
**Subject:** Regional Director Team RDT Notes 2-26-18  
**Date:** Wednesday, February 28, 2018 12:08:18 PM  
**Attachments:** [RDT NOTES 2-26-18 \(1\).pdf](#)

---

## Current Alaska Region Activities and Information

### **Region 7 - Alaska Budget and Administration**

**Vision:** We Give the Mission Life!

**Mission:** We strategically partner to provide efficient, effective, and professional support

*Lynne Santos  
FOIA Officer & Administrative Specialist  
1011 E. Tudor Road MS 374  
Anchorage, Alaska 99503  
Tel 907-786-3544  
Fax 907-786-3306*

*“Don't find fault, find a remedy; anybody can complain” - Henry Ford  
“Common sense is genius dressed in its working clothes” -Ralph Waldo Emerson*

**From:** [Berendzen, Steve](#)  
**To:** [Johnson, Carl](#)  
**Cc:** [Wendy Loya](#); [Joanna Fox](#); [Roger Kaye](#)  
**Subject:** Re: Urgent - Arctic & Izembek Info  
**Date:** Wednesday, February 28, 2018 12:49:26 PM

---

Carl & Wendy,

We're suggesting a change to the last bullet in the BP as worded below:

- To avoid significant adverse effects on fish, wildlife and other resources, the Department will authorize activities within the coastal plain in a manner consistent with the original Public Land Order purposes, the ANILCA conservation purposes and the recent oil and gas program purpose.

The original purposes for the Arctic National Wildlife Range were established prior to ANILCA and still apply. Some of the new bullets are very good points, but probably none as important as what is currently in this BP

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

On Wed, Feb 28, 2018 at 9:10 AM, Johnson, Carl <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)> wrote:  
Steve,

Sorry for the quick turnaround, but, do you have any updates on the two attached briefing papers related to Arctic NWR? How about you Wendy? Due COB EST today.

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
1011 E. Tudor Road,  
Anchorage, AK 99503  
(907) 786-3584

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

**From:** **Lor, Socheata** <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
**Date:** Wed, Feb 28, 2018 at 7:27 AM  
**Subject:** Urgent - Arctic & Izembek Info  
**To:** "Johnson, Carl" <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, "Brady, Stephanie" <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, John Trawicki <[John\\_Trawicki@fws.gov](mailto:John_Trawicki@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Carl and Stephanie,

Can you coordinate to draft the BPs for Izembek and Arctic? Due COB Today, DC time.

Sorry about the quick turnaround.

I attached a BP on Izembek that I used to update the chiefs. I made some suggested edits. Also attached are bullets that Damberg used yesterday to brief the refuge chiefs, and sort of a fact sheet on Arctic.

Let me know if you have questions.

## 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:** Ellis, Mitch <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>

**Date:** Wed, Feb 28, 2018 at 3:57 AM

**Subject:** Urgent - Arctic & Izembek Info

**To:** Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Cynthia would like to have current status info on the Izembek and Arctic issues by COB today. Do we have a current BP for each? Maybe a short timeline if you had that for yesterday? Let's talk this morning about this. She needs it for their meeting with the NWRA Board Friday. She and Steve Guertin are representing the Service there.

---

Mitch Ellis  
Acting Chief, Division of Natural Resources  
Headquarters, National Wildlife Refuge System  
US Fish and Wildlife Service  
(703)358-2660 wk  
(907)947-4416 mob

**From:** [Berendzen, Steve](#)  
**To:** [Trawicki, John](#)  
**Cc:** [Joanna Fox](#); [Stephanie Brady](#); [Drew Crane](#); [Eric Taylor](#); [Wendy Loya](#)  
**Subject:** Re: Parties identified to date  
**Date:** Wednesday, February 28, 2018 1:31:57 PM

---

John,

This list looks good to me.

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

On Wed, Feb 28, 2018 at 7:35 AM, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:

Please review the 2 lists provided by Nicole. Are there any additions for consultation? Please let me now by noon today. I will consolidate Service response and reply to Nicole. Thank you

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

**From:** **Hayes, Miriam (Nicole)** <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Date:** Wed, Feb 28, 2018 at 7:12 AM  
**Subject:** Parties identified to date  
**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Cc:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

For tribal consultation currently we have:

Native Village of Kaktovik  
Arctic Village  
Inupiat Community of the Arctic Slope (ICAS)  
Venetie  
Fort Yukon

For ANCSA Corp Consultation we have:

Arctic Slope Regional Corp  
Kaktovik Inupiat Corp

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

--

John Trawicki

0000007385

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

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

**From:** [Johnson, Carl](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Steve Berendzen](#)  
**Subject:** Re: Urgent - Arctic & Izembek Info  
**Date:** Wednesday, February 28, 2018 1:33:51 PM

---

Wendy,

I will find a place to include that. Thanks. I have to finish this up and get it back to Soch by noon.

Carl

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
1011 E. Tudor Road,  
Anchorage, AK 99503  
(907) 786-3584

On Wed, Feb 28, 2018 at 9:17 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Carl,

Given the high-level focus of section IV. Next Steps/Outlook, it was unclear if there was a place for a bullet point along the lines of:

FWS Alaska Regional Staff are working closely with BLM Alaska State Office staff to identify information available and needed to prepare the Draft EIS for the 1002 Coastal Plain.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

0000007387

907.786.3532 (office)

907.227.2942 (mobile)

**From:** Johnson, Carl [mailto:[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)]  
**Sent:** Wednesday, February 28, 2018 9:11 AM  
**To:** Steve Berendzen  
**Cc:** Wendy Loya  
**Subject:** Fwd: Urgent - Arctic & Izembek Info

Steve,

Sorry for the quick turnaround, but, do you have any updates on the two attached briefing papers related to Arctic NWR? How about you Wendy? Due COB EST today.

Carl Johnson, J.D.

Acting Deputy Assistant Regional Director - Region 7

National Wildlife Refuge System

[1011 E. Tudor Road.](#)

[Anchorage, AK 99503](#)

[\(907\)](#) 786-3584

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

From: **Lor, Socheata** <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>  
Date: Wed, Feb 28, 2018 at 7:27 AM  
Subject: Urgent - Arctic & Izembek Info  
To: "Johnson, Carl" <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, "Brady, Stephanie" <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, John Trawicki <[John\\_Trawicki@fws.gov](mailto:John_Trawicki@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

0000007388

Carl and Stephanie,

Can you coordinate to draft the BPs for Izembek and Arctic? Due COB Today, DC time.

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I attached a BP on Izembek that I used to update the chiefs. I made some suggested edits. Also attached are bullets that Damberg used yesterday to brief the refuge chiefs, and sort of a fact sheet on Arctic.

Let me know if you have questions.

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: **Ellis, Mitch** <[mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)>

Date: Wed, Feb 28, 2018 at 3:57 AM

Subject: Urgent - Arctic & Izembek Info

To: Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, "Lor, Socheata" <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Cynthia would like to have current status info on the Izembek and Arctic issues by COB today. Do we have a current BP for each? Maybe a short timeline if you had that for yesterday? Let's talk this morning about this. She needs it for their meeting with the NWRA Board Friday. She and Steve Guertin are representing the Service their.

---

Mitch Ellis

Acting Chief, Division of Natural Resources

Headquarters, National Wildlife Refuge System

US Fish and Wildlife Service

(703)358-2660 wk

(907)947-4416 mob

**From:** [Lemons, Patrick](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Amea Howard](#); [Colligan, Mary](#)  
**Subject:** Re: Bibliography  
**Date:** Wednesday, February 28, 2018 2:38:53 PM  
**Attachments:** [Polar Bear Bibliography - 1002.docx](#)

---

Thanks Wendy. Here's a clean version of what I sent you last night. If you can just replace what I sent with this version, that would be great. This one should have us covered.

When everyone is back in the office next week, we'll take another look at it. If we find new additions, I'll follow up with you to see if you want us to update it.

Let me know if you have questions or need anything else.  
Patrick

On Wed, Feb 28, 2018 at 8:40 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Patrick,

I am of the opinion that we should continue to work on this now and over time to keep it current, but it was not intended to be a drop-everything priority for staff. I will see if John Martin can continue to do updates (he did the initial compilation). So if you want to add more, please do. I am not sure how HQ will use this info, but I understand that we have had bibliography on the Arctic Refuge website in the past, and that seems like an outlet for this information for both internal and external audiences.

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:** Lemons, Patrick [mailto:[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 5:09 PM  
**To:** Howard, Amee  
**Cc:** Wendy Loya  
**Subject:** Re: Bibliography

Hi Wendy,

Attached is the best we could pull together on short notice. I'm pretty sure we're missing an item or two and possibly were a little too encompassing in what's in the attached. My plan to review this thoroughly tonight and tomorrow morning. If you need to send something in ASAP, go ahead. Otherwise, I'll follow up with you once I've had a chance to thoroughly review the list and get back to you with any last changes. This should occur by noon tomorrow at the latest.

Let me know if that works for you and if you have any questions.  
Patrick

On Tue, Feb 27, 2018 at 12:16 PM, Howard, Amee <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:

Hi Wendy,

FYI - It looks like the bibliography will have some additions in the near future. It seems appropriate that it is a living document of sorts!

Thanks so much!

Amee

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

**From:** Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>  
**Date:** Tue, Feb 27, 2018 at 9:42 AM  
**Subject:** Re: Bibliography

To: "Siekaniec, Greg" <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
Cc: "Howard, Amee" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary" <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Hi Amee,

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 and 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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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.

0000007396

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)

--

*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"](#)

--

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)

--

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e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

**From:** [Wendy Loya](#)  
**To:** [John Trawicki](#)  
**Subject:** FW: Bibliography  
**Date:** Wednesday, February 28, 2018 2:49:53 PM  
**Attachments:** [Polar Bear Bibliography - 1002.docx](#)

---

**From:** Lemons, Patrick [mailto:[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)]  
**Sent:** Wednesday, February 28, 2018 12:39 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Amee Howard <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>; Colligan, Mary <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>  
**Subject:** Re: Bibliography

Thanks Wendy. Here's a clean version of what I sent you last night. If you can just replace what I sent with this version, that would be great. This one should have us covered.

When everyone is back in the office next week, we'll take another look at it. If we find new additions, I'll follow up with you to see if you want us to update it.

Let me know if you have questions or need anything else.  
Patrick

On Wed, Feb 28, 2018 at 8:40 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Patrick,

I am of the opinion that we should continue to work on this now and over time to keep it current, but it was not intended to be a drop-everything priority for staff. I will see if John Martin can continue to do updates (he did the initial compilation). So if you want to add more, please do. I am not sure how HQ will use this info, but I understand that we have had bibliography on the Arctic Refuge website in the past, and that seems like an outlet for this information for both internal and external audiences.

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:** Lemons, Patrick [mailto:[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)]  
**Sent:** Tuesday, February 27, 2018 5:09 PM  
**To:** Howard, Amee

**Cc:** Wendy Loya  
**Subject:** Re: Bibliography

Hi Wendy,

Attached is the best we could pull together on short notice. I'm pretty sure we're missing an item or two and possibly were a little too encompassing in what's in the attached. My plan to review this thoroughly tonight and tomorrow morning. If you need to send something in ASAP, go ahead. Otherwise, I'll follow up with you once I've had a chance to thoroughly review the list and get back to you with any last changes. This should occur by noon tomorrow at the latest.

Let me know if that works for you and if you have any questions.

Patrick

On Tue, Feb 27, 2018 at 12:16 PM, Howard, Ameer <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)> wrote:  
Hi Wendy,

FYI - It looks like the bibliography will have some additions in the near future. It seems appropriate that it is a living document of sorts!

Thanks so much!

Ameer

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

**From:** Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>  
**Date:** Tue, Feb 27, 2018 at 9:42 AM  
**Subject:** Re: Bibliography  
**To:** "Siekaniiec, Greg" <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>  
**Cc:** "Howard, Ameer" <[amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)>, "Colligan, Mary" <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>

Hi Ameer,

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.

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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](mailto:jim_kurth@fws.gov)>  
**Date:** January 30, 2018 at 1:16:15 PM AKST  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto: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

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

0000007403

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)

--

***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](#)"

--

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  
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e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

--

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Cell: 907-717-6787  
Fax: 907-786-3816  
e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

**From:** [Wendy Loya](#)  
**To:** [John Martin](#)  
**Bcc:** [Stephanie Brady](#); [John Trawicki](#)  
**Subject:** FW: Last call for agenda items or meeting cancelled today: FWS\_Arctic Refuge\_Weekly\_POC\_Updates  
**Date:** Wednesday, February 28, 2018 3:06:06 PM

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John M,

I apologize if it was not clear from my email, but I did send this out to everyone on the invite, including you, this morning at 9am. I apologize if I did not make it clear the meeting would be cancelled unless otherwise noted.

Sincerely,  
Wendy

---

**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Wednesday, February 28, 2018 9:04 AM  
**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>; Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>; John Martin <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)>; Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>; Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>; Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>; Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>; Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>; Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>; Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>  
**Subject:** Last call for agenda items or meeting cancelled today: FWS\_Arctic Refuge\_Weekly\_POC\_Updates

Hi Everyone,

We have quite a few people out of the office (Soch, Doug, Drew) and I would like to suggest we cancel the meeting this afternoon from 1-2pm, unless you have a high priority item you have not added to the rolling agenda.

[FWS Arctic Refuge Weekly POC updates](#)

The items on the to-do list are:

- I will follow up with Resource Assessment Team Leads on projects we identified on the Priority Information Needs spreadsheet to solicit a Statement of Work and any ideas for funding sources
- If you do not have access to the R7Common Drive that has the 1002 Arctic Refuge folder, will you please contact IT to find out how to get access to that drive? If Fairbanks collectively does not have access, perhaps work together?
- FOIA: We still need a plan in place for this inter-divisional effort.

I will be out all next week, returning on March 12<sup>th</sup>. John Trawicki will take on coordination in my absence, so please contact him with questions and please cc me so I can catch up quickly when I return (I will be out of email contact).

Thank you all,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

0000007405

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

-----Original Appointment-----

**From:** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov) [mailto:[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)] **On Behalf Of** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)

**Sent:** Tuesday, February 27, 2018 4:04 PM

**To:** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov); [john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov); [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov); [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov); [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov); [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov); [doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov); [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov); [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)

**Subject:** FWS\_Arctic Refuge\_Weekly\_POC\_Updates

**When:** Wednesday, February 28, 2018 10:00 PM-11:00 PM (UTC) Coordinated Universal Time.

**Where:** FWS-FW7 Science Application Conference Room/Regional Office

<p>Agenda and call in for weekly Meeting</p><p>&nbsp;</p><p>Rolling agenda and notes in Google Docs:</p><p><a href="https://docs.google.com/document/d/1xmo2N2wn5jqdGaORCldQ29gTvWb93TaTJCIL5BqsXm0/edit" target="\_blank">https://docs.google.com/document/d/1xmo2N2wn5jqdGaORCldQ29gTvWb93TaTJCIL5BqsXm0/edit</a></p><p>&nbsp;</p><p>Join by Vidyo to Refuges Conference Room</p><p>or call in 1-877-988-0215 passcode: 8122859</p><p>&nbsp;</p>

**From:** [Jorgenson, Janet](#)  
**To:** [Wendy Loya](#); [Julie Michaelson](#)  
**Subject:** Re: Vegetation and Wetland Mapping  
**Date:** Wednesday, February 28, 2018 3:44:00 PM

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Hi, I just left Wendy a phone message. I hope I will have more info on the NSSI map by tomorrow. I will be here tomorrow and can meet if you want.

On Wed, Feb 28, 2018 at 1:31 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Janet and Julie,

I wanted to find a time to talk to you both regarding how we might move forward on updating both the Vegetation and Wetlands mapping in the near future for the Arctic Refuge 1002 area. We identified this as a priority information need, and now need to come up with a plan, or several scenarios to account for funding uncertainty. Ideally we might work towards a Statement of Work and put in for approval to contract in the next few weeks.

I did talk with Scott Guyer at BLM about the north slope vegetation map and how we could make that Ducks Unlimited/NSSI product better for the Refuge. I also tried to learn a lot from Julie about Wetlands/Hydrography mapping. I perceive we are looking for two map products, but doing them simultaneously should make a more integrated product with potentially cost savings if we could do field validation simultaneously. However I don't know if the same contractor that would do a wetlands map would be able to work on the DU/NSSI map. So, that is the incomplete state of my knowledge.

Do either of you have time to meet tomorrow, Thursday March 1<sup>st</sup> to talk? I am busy from 1-2pm, but otherwise free. I cannot see your calendars to suggest at time. Janet, I understand you had concerns about how I phrased the information need, and I am happy to talk about that before the call.

Sincerely,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

0000007407

907.786.3532 (office)

907.227.2942 (mobile)

Sincerely,

Wendy

--

Janet C. Jorgenson

Botanist

Arctic National Wildlife Refuge

101 12th Ave, Rm 236

Fairbanks, Alaska 99701

907-456-0216

**From:** [Wendy Loya](#)  
**To:** [Jess Grunblatt](#); [memiller@blm.gov](mailto:memiller@blm.gov)  
**Subject:** RE: Slide templates for Annual North Slope Studies Review Meeting  
**Date:** Wednesday, February 28, 2018 5:44:53 PM  
**Attachments:** [FWS 2017 North Slope Research for NSSI.xlsx](#)

---

Hi Jess and Mark,

So last year FWS submitted 27 projects, do you really want me to present 27 slides in 15 minutes ☺? Pretty much everything we do is for development or environmental change, even if a slopewide migratory bird survey.

1. Share information about ongoing / upcoming 2018 field studies that are designed to address the individual and/or cumulative effects of past, ongoing, and anticipated development activities and environmental change on the North Slope.

Jess, in asking about a template, meaning spreadsheet-type template, I was thinking I could ask program staff to enter the information into the spreadsheet and I could transfer it to the slides. I recommend I would present only the most development related or studies likely to be of interest to the audience...what do you all think? Or you could advise presenters to select the top 5-10?

I am attaching last year's list FYI. It would be great to get your answer by Thursday at noon as I leave Friday at noon and will be out next week and would like to get the request out before I leave.

Thank you,  
Wendy

**From:** Jess Grunblatt [mailto:[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)]  
**Sent:** Monday, February 26, 2018 2:34 PM  
**To:** Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)>  
**Cc:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: Slide templates for Annual North Slope Studies Review Meeting

Hi Wendy,

Let me know what sort of template is of interest and I would like to assist as much as possible. Not sure what timeline you need to be responsive in but I would expect this would be wrapped up by end of March depending on the input we receive at the ANSSR meeting. Also note we don't ask about funding levels.

This is all part of the effort to update Catalog project records. There are currently 40 USFWS projects listed in Catalog. A student intern did some web updates last December however that was incomplete and I am not sure what the status is of most these projects. For current USFWS records in Catalog: [Click Here](#) It would be great to work with you to meet your needs and complete an update to USFWS Catalog records.

Jess

On Mon, Feb 26, 2018 at 1:10 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Thanks for your question - I defer to Jess re his method of compilation and whether a populated spreadsheet can be shared after the meeting.

---

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*

On Mon, Feb 26, 2018 at 1:05 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi guys,

Mark, thanks for sending this. I asked before about a spreadsheet that might combine all the info, and wondered if you also had that available? FWS wants to gather this information specific for the 1002 area, and I of course want to know if for the FWS work on the north slope, so was asked to develop a spreadsheet. Trying to meet that need with this request, which asks good questions about why, etc. Or maybe I don't need it and I can extract the FWS info once it is compiled by NSSI?

Thanks in advance,  
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)

**From:** Miller, Mark [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]  
**Sent:** Monday, February 26, 2018 12:52 PM  
**To:** Matt Whitman; Wendy M. Loya, PhD; John Pearce; Grant Hilderbrand; Leanna Mack; Sue Rodman; Melissa Head; Maher, Kimberley (DNR); McGhee, Robyn E; Pohl, Christina HM; [brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com); Beth Sharp; Kate Kaufman; Catherine Coon; Heather Crowley; Robyn P. Angliss, PhD; Ron Heintz; Lois DalleMolle  
**Cc:** Jess Grunblatt; Lisa Gleason; Sara W. Longan; Miriam (Nicole) Hayes  
**Subject:** Slide templates for Annual North Slope Studies Review Meeting

All -

Attached for your use, the slide templates for the meeting. The intent is that the set be replicated for each separate study that you include in your presentation.

The templates are designed specifically to prompt you for information that may promote coordination and collaboration with others in the group, and will be used to update NSSI

Catalog records. Your information also will be used to prepare a simple synthesis report that we plan to distribute to the group shortly after the meeting.

Note on venue: the meeting will be held in the [Federal Building](#) downtown on 7th Street. More details to follow with final agenda.

Mark

---

**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](tel:907-271-3212) | Mobile: [907-231-9427](tel:907-231-9427)  
c/o Bureau of Land Management | Alaska State Office | State Director's Office  
[222 West 7th Avenue, #13 | Anchorage, AK 99513](#)

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"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*

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**Jess Grunblatt**

Research Professional  
Alaska Center for Conservation Science (ACCS)  
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[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)

Office: (907) 786 6353

Cell: (907) 244 2435

**From:** [Wendy Loya](#)  
**To:** [Jess Grunblatt](#); [Mark Miller](#)  
**Subject:** RE: Slide templates for Annual North Slope Studies Review Meeting  
**Date:** Thursday, March 1, 2018 10:58:03 AM

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I agree that all projects need to be submitted and only some presented. My suggestion, only a suggestion, is that you send out the spreadsheet so you can collect all projects and then ask the presenter to select the top X-X number of projects to insert into the slides for the meeting 😊

I can certainly do this for FWS on my own.

Thanks!  
Wendy

**From:** Jess Grunblatt [mailto:[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)]  
**Sent:** Wednesday, February 28, 2018 4:01 PM  
**To:** Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)>  
**Cc:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Slide templates for Annual North Slope Studies Review Meeting

That would be fine for the presentation although I would like to follow up with someone to fully update USFWS projects in Catalog. Sound good?

In the future it would be good to get the update done before the ANSSR meeting and folks could refer to it and summarize as they felt was appropriate.

On Wed, Feb 28, 2018 at 3:53 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

I would go with your recommendation to prioritize based on relationship to development-related information needs / your best judgment of those likely to be of greatest interest to this audience.

Jess?

---

**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](#)

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On Wed, Feb 28, 2018 at 3:44 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Jess and Mark,

So last year FWS submitted 27 projects, do you really want me to present 27 slides in 15 minutes ☺? Pretty much everything we do is for development or environmental change, even if a slopewide migratory bird survey.

1. Share information about ongoing / upcoming 2018 field studies that are designed to address the individual and/or cumulative effects of past, ongoing, and anticipated development activities and environmental change on the North Slope.

Jess, in asking about a template, meaning spreadsheet-type template, I was thinking I could ask program staff to enter the information into the spreadsheet and I could transfer it to the slides. I recommend I would present only the most development related or studies likely to be of interest to the audience...what do you all think? Or you could advise presenters to select the top 5-10?

I am attaching last year's list FYI. It would be great to get your answer by Thursday at noon as I leave Friday at noon and will be out next week and would like to get the request out before I leave.

Thank you,  
Wendy

**From:** Jess Grunblatt [mailto:[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)]

**Sent:** Monday, February 26, 2018 2:34 PM

**To:** Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)>

**Cc:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

**Subject:** Re: Slide templates for Annual North Slope Studies Review Meeting

Hi Wendy,

Let me know what sort of template is of interest and I would like to assist as much as possible. Not sure what timeline you need to be responsive in but I would expect this would be wrapped up by end of March depending on the input we receive at the ANSSR meeting. Also note we don't ask about funding levels.

This is all part of the effort to update Catalog project records. There are currently 40 USFWS projects listed in Catalog. A student intern did some web updates last December however that was incomplete and I am not sure what the status is of most these projects. For current USFWS records in Catalog: [Click Here](#) It would be great to work with you to meet your needs and complete an update to USFWS Catalog records.  
Jess

On Mon, Feb 26, 2018 at 1:10 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Thanks for your question - I defer to Jess re his method of compilation and whether a populated spreadsheet can be shared after the meeting.

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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](tel:907-271-3212) | Mobile: [907-231-9427](tel:907-231-9427)  
c/o Bureau of Land Management | Alaska State Office | State Director's Office  
[222 West 7th Avenue, #13 | Anchorage, AK 99513](https://www.blm.gov/locations/222-West-7th-Avenue-13-Anchorage-AK-99513)

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– E. O. Wilson, *Consilience*

On Mon, Feb 26, 2018 at 1:05 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi guys,

Mark, thanks for sending this. I asked before about a spreadsheet that might combine all the info, and wondered if you also had that available? FWS wants to gather this information specific for the 1002 area, and I of course want to know if for the FWS work on the north slope, so was asked to develop a spreadsheet. Trying to meet that need with this request, which asks good questions about why, etc. Or maybe I don't need it and I can extract the FWS info once it is compiled by NSSI?

Thanks in advance,  
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)

**From:** Miller, Mark [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]

**Sent:** Monday, February 26, 2018 12:52 PM

**To:** Matt Whitman; Wendy M. Loya, PhD; John Pearce; Grant Hilderbrand; Leanna Mack; Sue Rodman; Melissa Head; Maher, Kimberley (DNR); McGhee, Robyn E; Pohl, Christina HM; [brien.e.reep@exxonmobil.com](mailto:brien.e.reep@exxonmobil.com); Beth Sharp; Kate Kaufman; Catherine Coon; Heather Crowley; Robyn P. Angliss, PhD; Ron Heintz; Lois DalleMolle

**Cc:** Jess Grunblatt; Lisa Gleason; Sara W. Longan; Miriam (Nicole) Hayes

**Subject:** Slide templates for Annual North Slope Studies Review Meeting

All -

Attached for your use, the slide templates for the meeting. The intent is that the set be replicated for each separate study that you include in your presentation.

The templates are designed specifically to prompt you for information that may promote coordination and collaboration with others in the group, and will be used to update NSSI Catalog records. Your information also will be used to prepare a simple synthesis report that we plan to distribute to the group shortly after the meeting.

Note on venue: the meeting will be held in the [Federal Building](#) downtown on 7th Street. More details to follow with final agenda.

## Mark

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**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](tel:907-271-3212) | Mobile: [907-231-9427](tel:907-231-9427)

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-- E. O. Wilson, *Consilience*

--

**Jess Grunblatt**

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--

**Jess Grunblatt**

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Office: [\(907\) 786 6353](tel:907-786-6353)

Cell: [\(907\) 244 2435](tel:907-244-2435)

**From:** [Trawicki, John](#)  
**To:** [Steve Berendzen](#); [Joanna Fox](#); [Allyssa Morris](#); [Wendy Loya](#)  
**Subject:** Arctic Resources Bibliography  
**Date:** Thursday, March 1, 2018 4:48:40 PM  
**Attachments:** [Coastal Plain 1002 Area FWS LITERATURE1Mar2018UPDATED.docx](#)

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Hi All-

Steve- per our conversation attached is a copy of the bibliography that was put together at the request of DOI. It is fairly extensive and somewhat but not completely duplicative of the USGS or other efforts.

Allyssa- Could you please put a link to this document on the Refuge website similar to the other bibliography links.

The request was for science conducted by Service staff or using Service funds, and are relevant to the resources of the coastal plain of the refuge or foreseeable management of the coastal plain. Though fairly extensive, it will likely need to be updated from time to time.

Recommended title and/or explanation for the link:

"List of references by FWS (past and present) relevant to management of the Arctic National Wildlife Refuge ,Coastal Plain 1002 Area "

Please let Wendy and I know when this is complete so we can pass the link up the appropriate channels.

Thank you in advance for your prompt response to this request

john t

--

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

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

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Cc:** [Nicole Hayes](#)  
**Subject:** RE: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs  
**Date:** Thursday, March 1, 2018 4:51:44 PM

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John,

I have three questions if you can find information to share on tomorrow's call or I can provide clarification for future answer:

- 1) Do you have any further information on the NSB request to acquire LiDAR for the 1002 area, per a note in an email from Amy D to Greg S.
  - a. 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.
- 2) I see that there is funding for Frank Urban to maintain his monitoring sites on the north slope. He will be going out to do some ground work for ground truthing of LiDAR and Structure for Motion imagery collected by Matthew Sturm (UAF) if he can get funding for logistics. I believe this is in the range of \$5000-\$10000 (heard \$5K but don't want to underestimate). I believe that FWS could fund this, but if USGS could do make the immediate commitment that would expedite the process. FWS could fund some of his summer activities instead that you had planned to fund. If this sounds feasible, we can loop Frank in.
- 3) Are there other things in our table USGS might have capacity to contribute to (capturing my earlier question)

Thank you,  
Wendy

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Thursday, March 1, 2018 9:51 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs

Hi Wendy,

Yes, let's discuss tomorrow so Nicole is aware.

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

0000007417

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 Thu, Mar 1, 2018 at 9:29 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi John,

I was wondering if there are any projects on our Priority information needs list that USGS might be able to help with or contribute to? Would you be able to have a look through and we could talk about it later today or on the call tomorrow?

Thank you,  
Wendy

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**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Monday, February 26, 2018 3:17 PM  
**To:** John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Subject:** FW: Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs

Hi John,

Thank you again for your help this weekend in working through the FWS identified priorities for clarity. Attached is the final product, and the cover email I wrote to the Resource Assessment leads is below. Greg shared the list with Ted Murphy and BLM Sunday evening in anticipation of their briefing at noon today. Don't know any specifics about that, only know what I described.

Talk to you soon,  
Wendy

---

**From:** Wendy Loya [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Monday, February 26, 2018 9:59 AM  
**To:** Drew Crane; Eric Taylor; Joanna Fox; John Trawicki; Stephanie Brady; Steve Berendzen; John Martin; Paul Leonard; Greta Burkart; Angela Matz; Mark Miller; Janet Jorgenson; Randy Brown; Christopher Latty; Stephen Arthur; Edward Decleva; Tracy Fischbach; Jennifer Reed; Sara Longan; Hollis Twitchell; Roger Kaye; Ted Swem; Joshua Bradley  
**Cc:** Sarena Selbo; Mary Colligan; '[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)'; Doug Damberg; Carl Johnson; Sarah Conn  
**Subject:** Arctic Refuge 1002 Area Resource Assessments: 2018 Priority Information Needs

Dear Colleagues,

Attached is a list of the studies that were submitted yesterday by Greg Siekaniec to BLM per their request at the January 19<sup>th</sup> Oil and Gas overview. At that meeting, BLM asked on the spot what our priority information needs were to get to an EIS for Oil and Gas for the 1002 area. We deferred until you all had the chance to compile the Resource Assessments you completed by February 16<sup>th</sup>.

The Resource Assessments are very good, and show the effort that you all took in reaching

out to BLM Arctic Field office staff and other experts to understand what information we need to make decision, identifying what we have and studies that will help fill knowledge gaps. When compiled all together, we had over 86 recommended studies.

I then worked with your division points of contact (Drew Crane, Eric Taylor, John Trawicki, Steve Berendzen, and Joanna Fox) as well as Steve Arthur, Sarah Conn and Paul Leonard to identify a prioritization framework. Paul and I further consulted with the NPRA Table 2.3 Stipulations; BLM Arctic Field Staff, industry, FWS staff and others to come up with a list of 10 Studies, *not including Polar Bears*, that appear to be needed to: 1) meet an near-term regulatory need, 2) needed to identify Stipulations/BMPs in writing the EIS or completing the EIS in other ways, or 3) pertained to Exploration (primarily seismic activity).

Thus, our focus was on needing to start now to have information in the next few months to next 2 years. We combined some studies recommended separately, and that changed some budgets that were provided. The details of most of the studies in the table need to be fleshed out, and we need a budget(!). Paul and I will work with you all to share what further information we may have and help facilitate those conversations with additional partners as needed. Polar Bears were removed from consideration as high priority studies as those research needs had already been identified and submitted to BLM/FWS.

You won't see all of the important work that was recommended in the table, but that does not mean it shouldn't be done. We thought some of it could wait a little while, even if just a year. Other studies may be done by industry once they hold leases in as soon as 2 years. Also, note that it may take about 10 years to begin development, so we have time to start baseline studies for pre-development data, which will be one of our next priorities. We'll know more about the potential economically recoverable oil estimates when USGS completes its re-analysis of the vintage 2D seismic later in 2018, and that and the information we hope to collect from the studies in the Priority Information Needs Table will help us target our studies starting in 2019.

John Martin, Paul Leonard and I will continue to work with you all to compile the full Resource Assessments into a science plan for the Arctic Refuge 1002 Area. It will be a "living" document as we learn more and work with BLM on the EIS for Leasing, once that starts.

I welcome any questions you have about the process or list.

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)



and insight into how the agencies are planing to address Arctic NWR 1002 oil/gas activities mandated in the recent tax legislation. Most of this is new to all of us, and so things may have seemed a little chaotic at times, but a plan is coming together on how to we will address the workload and needs. As I mentioned on the VTC yesterday, there may be times that we will need help from folks at refuges around the region to help write, review or do other tasks to meet deadlines. I want to extend my appreciation up front for any help you may be able to provide.

If you have any questions, don't hesitate to call.

Thanks,  
d

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

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
Date: Tue, Feb 20, 2018 at 4:53 PM  
Subject: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan  
To: Charles Hamilton <[charles\\_hamilton@fws.gov](mailto:charles_hamilton@fws.gov)>, Greta Burkart <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>, Janet Jorgenson <[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)>, Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, Edward Decleva <[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)>, Peter Butteri <[peter\\_butteri@fws.gov](mailto:peter_butteri@fws.gov)>, Randy Brown <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>, Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>, Roy Churchwell <[roy\\_churchwell@fws.gov](mailto:roy_churchwell@fws.gov)>, Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>, Jim Johnson <[jim\\_a\\_johnson@fws.gov](mailto:jim_a_johnson@fws.gov)>, Steve Lewis <[steve\\_b\\_lewis@fws.gov](mailto:steve_b_lewis@fws.gov)>, Michael Swaim <[michael\\_swaim@fws.gov](mailto:michael_swaim@fws.gov)>, Julian Fischer <[julian\\_fischer@fws.gov](mailto:julian_fischer@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>, Ryan Wilson <[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Hollis Twitchell <[hollis\\_twitchell@fws.gov](mailto:hollis_twitchell@fws.gov)>, Susan LaKovski <[susan\\_lakovski@fws.gov](mailto:susan_lakovski@fws.gov)>, Jennifer Reed <[jennifer\\_reed@fws.gov](mailto:jennifer_reed@fws.gov)>, Angela Matz <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)>, Roger Kaye <[roger\\_kaye@fws.gov](mailto:roger_kaye@fws.gov)>, Eva Patton <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)>, Robbin Lavine <[robbin\\_lavine@fws.gov](mailto:robbin_lavine@fws.gov)>  
Cc: Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Dear FWS colleagues,

As Greg Siekaniec announced at the February All Staff meeting, I am serving as the Regional

Point of Contact (POC) for the 1002 Coastal Plain of the Arctic National Wildlife Refuge Program to establish and oil and gas program. I work with POCs from the Arctic Refuge (Steve Berendzen and Joanna Fox), NWRs program (John Trawicki), FES (Drew Crane) and Migratory Birds (Eric Taylor) and other FWS staff to gather and share information with the Regional Director, BLM, USGS and other agencies. FWS staff can go to their POC for more information on the status of the process or with any questions.

At this time, it appears BLM-Alaska will lead preparation of an EIS to establish a leasing plan for the 1002 Coastal Plain of the Arctic National Wildlife Refuge, and the FWS Alaska Region is expecting to be a cooperating agency and provide information on the natural resources and other areas where we have expertise, to inform the plan. The goal communicated with BLM from DC is a lease sale within 2 years. I would like to provide some additional information to help you understand how FWS could contribute to the EIS, although there is still uncertainty until BLM is told to publish a Notice of Intent to prepare an EIS and we are established as a partner in its development.

The primary way which BLM manages activities during exploration and development is through stipulations (Stips) and required operating procedures (ROPs) or best management practices(BMPs). I'd like to help you become familiar with these as they may answer questions you have already about how we will protect the lands, waters and wildlife of the Refuge while making the lands available for leasing and development. They will also help you start thinking about how you will be asked to use your knowledge to inform a Leasing Plan for the 1002 Coastal Plain in the Arctic National Wildlife Refuge in the coming months, as we will want to identify where on the coastal plain different Stips and ROPs should be applied.

Attached is a PDF that contains the 'Alternative stipulations and required operating procedures/best management practices' presented in the NPRA Integrated Activity Plan (IAP)/Final EIS, which is the title of the plan approved by BLM in 2013 for management of the entire NPRA. BLM evaluated 4 Alternatives in the Draft EIS (A,B,C,D), and added a 5<sup>th</sup> alternative in the Record of Decision (ROD; B-2). It gets complicated to understand all of the alternatives, but the Preferred Alternative B-2 which they selected and are currently using to manage the NPRA generally provided a balance between making lands available for leasing and making high value habitats unavailable for leasing or leased but with protective measures. Because the legislation states that the 1002 Coastal Plain shall be managed in a manner similar to NPRA, it is possible that the EIS for the Refuge will include Alternatives that involve unique combinations of these Stips.

Of particular interest will be on original page 84, which is the start of the ADDITIONAL PROTECTIONS THAT APPLY IN SELECT BIOLOGICALLY SENSITIVE AREAS ("K" Stips/BMPs). These are the primary tools for protecting sensitive and high value habitats/resources.

I have contacted the BLM Arctic District Field Office Acting Manager Shelly Jones to discuss how we can bring FWS and BLM staff together to discuss these Stips/ROPS/BMPs and what might be different for the Arctic Refuge. I will share more information when we have a plan, and welcome your feedback on what might make that most useful as well as what other information/training needs you might have to help us work with BLM on an EIS.

If you want to view or download the full NPRA IAP/FEIS, you can do so here:  
<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=14702>

BLM has a handy NEPA handbook that can help you understand the process, and identify where you'll have the opportunity to contribute to writing and/or review:  
[https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook\\_H-1790\\_508.pdf](https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf)

Again, this is all tentative until we receive further direction from BLM.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

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--

Andy Loranger

Refuge Manager  
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907.227.2942 (mobile)

**From:** Kahn, Lynnda [mailto:[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)]

**Sent:** Thursday, March 1, 2018 4:42 PM

**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

**Cc:** Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>; Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>

**Subject:** Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

Hi Wendy, Andy asked me to get with you to see if there's anything I might be able to help with. I work closely with BLM on the Refuge, in Swanson River Field and the Beaver Creek Unit. I routinely provide comments on Sundry Notices, which BLM then incorporates into their Conditions of Approval when any type of surface disturbance is to occur in conjunction with a particular project.

I also have a good working relationship with the operator (Hilcorp Alaska) and issue Special Use Permits for work outside of BLM's jurisdiction. If you need assistance in the future, please feel free to contact me. Thanks Wendy.

*Lynnda*

*Lynnda Kahn | Fish & Wildlife Biologist*

*Kenai National Wildlife Refuge*

*P.O. Box 2139 | Soldotna, AK 99669*

*(907) 260-2818*



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

**From:** Loranger, Andy <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>

**Date:** Wed, Feb 21, 2018 at 10:28 AM

**Subject:** Fwd: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of

Stipulations used in developing NPRA leasing plan  
To: Lynnda Kahn <[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)>

fyi, Lynnda if you have any ideas on this or in general for offering help as needed, perhaps just give Wendy a call?

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

From: **Damberg, Doug** <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>

Date: Wed, Feb 21, 2018 at 7:54 AM

Subject: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

To: Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>, Bob Rebarchik <[bob\\_rebarchik@fws.gov](mailto:bob_rebarchik@fws.gov)>, David Zabriskie <[david\\_zabriskie@fws.gov](mailto:david_zabriskie@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Kenton Moos <[kenton\\_moos@fws.gov](mailto:kenton_moos@fws.gov)>, Mike Spindler <[mike\\_spindler@fws.gov](mailto:mike_spindler@fws.gov)>, Nathan Hawkaluk <[nathan\\_hawkaluk@fws.gov](mailto:nathan_hawkaluk@fws.gov)>, Ross Flagen <[ross\\_flagen@fws.gov](mailto:ross_flagen@fws.gov)>, Shawn Bayless <[shawn\\_bayless@fws.gov](mailto:shawn_bayless@fws.gov)>, Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Susan Georgette <[susan\\_georgette@fws.gov](mailto:susan_georgette@fws.gov)>, Tina Moran <[tina\\_moran@fws.gov](mailto:tina_moran@fws.gov)>

Cc: Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, Socheata Lor <[Socheata\\_Lor@fws.gov](mailto:Socheata_Lor@fws.gov)>

All:

I'm forwarding this just as an FYI (for most of you, that is) to provide a little more background and insight into how the agencies are planing to address Arctic NWR 1002 oil/gas activities mandated in the recent tax legislation. Most of this is new to all of us, and so things may have seemed a little chaotic at times, but a plan is coming together on how to we will address the workload and needs. As I mentioned on the VTC yesterday, there may be times that we will need help from folks at refuges around the region to help write, review or do other tasks to meet deadlines. I want to extend my appreciation up front for any help you may be able to provide.

If you have any questions, don't hesitate to call.

Thanks,

d

Doug Damberg

Refuge Supervisor, AK North Zone

U.S. Fish and Wildlife Service

0000007427

[1011 E. Tudor Rd.; Anchorage, AK 99503](#)

[Office: \(907\) 786-3329](#)

Cell: (907) 947-6302

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Date: Tue, Feb 20, 2018 at 4:53 PM

Subject: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

To: Charles Hamilton <[charles\\_hamilton@fws.gov](mailto:charles_hamilton@fws.gov)>, Greta Burkart

<[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>, Janet Jorgenson <[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)>, Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, Edward Decleva <[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)>, Peter Butteri <[peter\\_butteri@fws.gov](mailto:peter_butteri@fws.gov)>, Randy Brown <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>, Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>, Roy Churchwell <[roy\\_churchwell@fws.gov](mailto:roy_churchwell@fws.gov)>, Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>, Jim Johnson <[jim\\_a\\_johnson@fws.gov](mailto:jim_a_johnson@fws.gov)>, Steve Lewis <[steve\\_b\\_lewis@fws.gov](mailto:steve_b_lewis@fws.gov)>, Michael Swaim <[michael\\_swaim@fws.gov](mailto:michael_swaim@fws.gov)>, Julian Fischer <[julian\\_fischer@fws.gov](mailto:julian_fischer@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>, Ryan Wilson <[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Hollis Twitchell <[hollis\\_twitchell@fws.gov](mailto:hollis_twitchell@fws.gov)>, Susan LaKomski <[susan\\_lakowski@fws.gov](mailto:susan_lakowski@fws.gov)>, Jennifer Reed <[jennifer\\_reed@fws.gov](mailto:jennifer_reed@fws.gov)>, Angela Matz <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)>, Roger Kaye <[roger\\_kaye@fws.gov](mailto:roger_kaye@fws.gov)>, Eva Patton <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)>, Robbin Lavine <[robbin\\_lavine@fws.gov](mailto:robbin_lavine@fws.gov)>

Cc: Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Dear FWS colleagues,

As Greg Siekaniec announced at the February All Staff meeting, I am serving as the Regional Point of Contact (POC) for the 1002 Coastal Plain of the Arctic National Wildlife Refuge Program to establish and oil and gas program. I work with POCs from the Arctic Refuge (Steve Berendzen and Joanna Fox), NWRs program (John Trawicki), FES (Drew Crane) and Migratory Birds (Eric Taylor) and other FWS staff to gather and share information with the Regional Director, BLM, USGS and other agencies. FWS staff can go to their POC for more information on the status of the process or with any questions.

At this time, it appears BLM-Alaska will lead preparation of an EIS to establish a leasing plan for the 1002 Coastal Plain of the Arctic National Wildlife Refuge, and the FWS Alaska Region is expecting to be a cooperating agency and provide information on the natural resources and other areas where we have expertise, to inform the plan. The goal

communicated with BLM from DC is a lease sale within 2 years. I would like to provide some additional information to help you understand how FWS could contribute to the EIS, although there is still uncertainty until BLM is told to publish a Notice of Intent to prepare an EIS and we are established as a partner in its development.

The primary way which BLM manages activities during exploration and development is through stipulations (Stips) and required operating procedures (ROPs) or best management practices(BMPs). I'd like to help you become familiar with these as they may answer questions you have already about how we will protect the lands, waters and wildlife of the Refuge while making the lands available for leasing and development. They will also help you start thinking about how you will be asked to use your knowledge to inform a Leasing Plan for the 1002 Coastal Plain in the Arctic National Wildlife Refuge in the coming months, as we will want to identify where on the coastal plain different Stips and ROPs should be applied.

Attached is a PDF that contains the 'Alternative stipulations and required operating procedures/best management practices' presented in the NPRA Integrated Activity Plan (IAP)/Final EIS, which is the title of the plan approved by BLM in 2013 for management of the entire NPRA. BLM evaluated 4 Alternatives in the Draft EIS (A,B,C,D), and added a 5<sup>th</sup> alternative in the Record of Decision (ROD; B-2). It gets complicated to understand all of the alternatives, but the Preferred Alternative B-2 which they selected and are currently using to manage the NPRA generally provided a balance between making lands available for leasing and making high value habitats unavailable for leasing or leased but with protective measures. Because the legislation states that the 1002 Coastal Plain shall be managed in a manner similar to NPRA, it is possible that the EIS for the Refuge will include Alternatives that involve unique combinations of these Stips.

Of particular interest will be on original page 84, which is the start of the ADDITIONAL PROTECTIONS THAT APPLY IN SELECT BIOLOGICALLY SENSITIVE AREAS ("K" Stips/BMPs). These are the primary tools for protecting sensitive and high value habitats/resources.

I have contacted the BLM Arctic District Field Office Acting Manager Shelly Jones to discuss how we can bring FWS and BLM staff together to discuss these Stips/ROPS/BMPs and what might be different for the Arctic Refuge. I will share more information when we have a plan, and welcome your feedback on what might make that most useful as well as what other information/training needs you might have to help us work with BLM on an EIS.

If you want to view or download the full NPRA IAP/FEIS, you can do so here:  
<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=14702>

BLM has a handy NEPA handbook that can help you understand the process, and identify where you'll have the opportunity to contribute to writing and/or review:  
[https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook\\_H-1790\\_508.pdf](https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf)

Again, this is all tentative until we receive further direction from BLM.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Andy Loranger

Refuge Manager

Kenai National Wildlife Refuge

907-260-2804

**From:** [Wendy Loya](#)  
**To:** [Christopher Arp](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** RE: ANWR slide and misc items  
**Date:** Friday, March 2, 2018 12:02:45 PM

---

Hi Chris,

Sorry for the delay in getting back to you. Paul and I have been actively engaged in a rapid-response state of the science assessment for the Arctic Refuge 1002 area, and are working to turn that into a science plan. I am serving as the regional FWs coordinator for the emerging Arctic Refuge 1002 program, as the FWS role is managing the natural resources of the Refuge and of course Paul is taking a lead in the spatial ecology part of identifying high value habitats and the science needed to identify conservation and best practices. So a lot going on in a very fast timeline.

That said, I am grateful for your update email from the 21<sup>st</sup>. First, I had not gotten back to you on the manuscript draft you had sent in December, but I could take a look at the current one if you could take comments in the next 2 weeks or even just to take a look while you submit.

I will not be able to attend the March 23<sup>rd</sup> meeting, but if there were a way to host it as a webinar, I would like to attend from Anchorage. If that is complicated, no worries; Paul should be able to attend so please keep him in the loop.

Glad to hear about Toolik LTER interest in helping, I hope it pans out. Let me know if I can do anything to help and I will make the time to do so.

We're still waiting for a 2018 budget, but I welcome your scenarios for how data from road-accessible Kuparuk could start to inform refuges in the Arctic Refuge. Hoping you'll consider using Arctic Refuge in describing it instead of ANWR ☺ All of our funding agreements get reviewed by HQ now for meeting DOI priorities, and I think this is important in the context of the 1002 area and it also is a "shovel-ready" project with an existing CESU. All good reasons to have a modified Statement of Work in hand for \$50K or less. Cannot guarantee this would be funded or submitted.

Paul is working with Josh to get the data from the Ice Regimes uploaded to our website, but that has not happened yet to the best of my knowledge and Josh is out of town now until Mid-March. So unless Paul told you otherwise, probably omit the reference in your paper. Also hard to say what will happen with our website in the next few years.

Lastly, as an FYI, we are planning to work with Matthew Sturm/Chris Larson on a snow survey in April using LiDAR and SFM for a swath of the 1002 area as Matthew got NASA funding. Frank Urban may do some ground truthing simultaneously.

I'll be back on March 12<sup>th</sup>, so contact Paul if you have any updates or questions next week.

Thank you,  
Wendy

0000007431

**From:** Christopher Arp [mailto:[cdarp@alaska.edu](mailto:cdarp@alaska.edu)]  
**Sent:** Wednesday, February 21, 2018 9:12 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>  
**Subject:** ANWR slide and misc items

Hi Wendy,

Thanks for helping me track down 1002 area shapefile. Here's the figure I needed it for. Bill Schnabel's meeting with our senators and old rep in DC next week and was going to put this question to them and see if it eventually helps fund some relevant science.

A few other things:

1 - Date for our Fish CAFE Arctic Adaptive Management meeting is morning of March 23. We haven't announced anything officially yet, but will be at BLM office in Fairbanks and will also have a web link to join that way.

2 - Had a good meeting with Toolik LTER Stream Team folks (Breck B, Linda Deegen, Alex Hyrun, etc) via conference call to their annual Woods Hole meeting last week. They were quite interested in TEON being defunded and we discussed some possibilities of them providing more support to maintain breakup gauging and help with other parts if needed. Not sure what will come of it, but good chat.

3 - We're moving forward with plan to modify TEON to help better meet current science needs (ANWR and late season flows). We're working on an automated flow dilution system to use for gauging ice affected late season flows, which we are also going to test during breakup this year. We won't be doing snow surveys. Emily is starting the process of modeling late season flow for existing Kuparuk R. I also have three budget scenarios in hand for future TEON funding that we can discuss at some point.

4 - Have internal reviews back on FEE Fish CAFE synthesis paper and am planning on revising and submitting sometime in next month or so.

5 - Go 25 year ice regime analysis paper accepted at Remote Sensing the Environment last week. Has that dataset been posted yet on ALCC website? Not a bit deal as we're working with Arctic Data Center to post data there too, but would be nice to list sources in final manuscript text.

Cheers,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
467 Duckering, PO Box 5860  
Fairbanks, AK 99775-5860  
Phone: 907-474-2783

Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)

<http://ine.uaf.edu/werc/people/chris-arp/>

<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>

---

**From:** [Google Calendar](#) on behalf of [Miriam \(Nicole\) Hayes](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** FWS-BLM Weekly Check-in on Coastal Plain 1002  
**Attachments:** [invite.ics](#)

---

This event has been canceled and removed from your calendar.

FWS-BLM Weekly Check-in on Coastal Plain 1002

Please send any agenda topics to me by noon each Tuesday. We can have our first weekly check-in next week!

**When**

Tue Mar 6, 2018 2pm – 3pm Alaska Time

**Where**

[b5-CIP](#), participant passcode # [b5-CIP](#) (map <<https://maps.google.com/maps?q=b5-CIP>  
<[b5-CIP](#)+participant+passcode<[b5-CIP](#)>> )

**Video call**

<https://plus.google.com/b5-CIP>

**Calendar**

[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

**Who**

- [mnhayes@blm.gov](mailto:mnhayes@blm.gov)
- organizer
- [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)
- [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)
- [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)
- [ssweet@blm.gov](mailto:ssweet@blm.gov)
- [njones@blm.gov](mailto:njones@blm.gov)
- [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)
- [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)
- [mdraper@blm.gov](mailto:mdraper@blm.gov)
- [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for cancellations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. [Learn More](https://support.google.com/calendar/answer/37135#forwarding)  
<<https://support.google.com/calendar/answer/37135#forwarding>> .

**From:** [Google Calendar](#) on behalf of [Miriam \(Nicole\) Hayes](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Coastal Plain 1002 USGS-FWS-BLM Weekly Check-In  
**Attachments:** [invite.ics](#)

---

This event has been canceled and removed from your calendar.

Coastal Plain 1002 USGS-FWS-BLM Weekly Check-In

When

Fri Mar 9, 2018 11am – 11:30am Alaska Time

Where

[b5-CIP](#) Participant Passcode [b5-CIP](#) (map <<https://maps.google.com/maps?q=b5-CIP>> +Participant+Passcode=[b5-CIP](#))

Video call

<https://plus.google.com/b5-CIP>

Calendar

[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Who

- [mnhayes@blm.gov](mailto:mnhayes@blm.gov)  
- organizer
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- [jpearce@usgs.gov](mailto:jpearce@usgs.gov)

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for cancellations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

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<<https://support.google.com/calendar/answer/37135#forwarding>> .

**From:** [Wendy Loya](#)  
**To:** [Allyssa Morris](#)  
**Subject:** RE: Arctic Resources Bibliography  
**Date:** Friday, March 2, 2018 1:25:05 PM

---

Thank you so much Allyssa!!!  
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:** Morris, Allyssa [mailto:[allyssa\\_morris@fws.gov](mailto:allyssa_morris@fws.gov)]  
**Sent:** Friday, March 2, 2018 11:07 AM  
**To:** Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Cc:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>; Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: Arctic Resources Bibliography

Hi John,

On Arctic's [Partial Bibliography of Scientific Publications](#) page, I included the link as requested and the list can be downloaded as a pdf format. The update should go live in about 24 hrs.

Allyssa Morris  
Environmental Education Specialist  
Arctic National Wildlife Refuges  
U.S. Fish and Wildlife Service  
101 12th Ave. Room 236  
Fairbanks, AK 99701  
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(907) 456-0428 fax  
[Like us on Facebook](#)

*"The seeker is the finder."* -Afghan proverb

On Thu, Mar 1, 2018 at 2:47 PM, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:

Hi All-

Steve- per our conversation attached is a copy of the bibliography that was put

together at the request of DOI. It is fairly extensive and somewhat but not completely duplicative of the USGS or other efforts.

Allyssa- Could you please put a link to this document on the Refuge website similar to the other bibliography links.

The request was for science conducted by Service staff or using Service funds, and are relevant to the resources of the coastal plain of the refuge or foreseeable management of the coastal plain. Though fairly extensive, it will likely need to be updated from time to time.

Recommended title and/or explanation for the link:

"

List of references by FWS (past and present) relevant to management of the Arctic National Wildlife Refuge

,

Coastal Plain 1002 Area

"

Please let Wendy and I know when this is complete so we can pass the link up the appropriate channels.

Thank you in advance for your prompt response to this request

john t

--

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

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

**From:** [Wendy Loya](#)  
**To:** [Greg Siekaniec](#); [Karen Clark](#); [Amee Howard](#)  
**Cc:** [John Trawicki](#); [Patrick Lemons](#); [Steve Berendzen](#); [Joanna Fox](#)  
**Subject:** FW: Arctic Resources Bibliography  
**Date:** Friday, March 2, 2018 1:35:00 PM

---

Hi Greg, Karen and Amee,

John Martin and John Trawicki have updated the Bibliography to reflect further contributions from current and past FWS staff, including significantly more Polar Bear research papers provided by Patrick Lemons team. Because this is a living document that we will continue to add to, we thought having on the Arctic Refuge website would be a good way to make the most updated version available to users/interested parties. Allyssa Morris has helped us accomplish this, with the latest update available by Monday morning:

On Arctic's [Partial Bibliography of Scientific Publications](#) page, I included the link as requested and the list can be downloaded as a pdf format. -Alyssa

On behalf of the 1002 team,  
Wendy

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

**From:** Morris, Allyssa [mailto:[allyssa\\_morris@fws.gov](mailto:allyssa_morris@fws.gov)]  
**Sent:** Friday, March 2, 2018 11:07 AM  
**To:** Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Cc:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>; Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: Arctic Resources Bibliography

Hi John,

On Arctic's [Partial Bibliography of Scientific Publications](#) page, I included the link as requested and the list can be downloaded as a pdf format. The update should go live in about 24 hrs.

Allyssa Morris  
Environmental Education Specialist  
Arctic National Wildlife Refuges

U.S. Fish and Wildlife Service  
101 12th Ave. Room 236  
Fairbanks, AK 99701  
(907) 456-0224 ph  
(907) 456-0428 fax  
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*"The seeker is the finder."* -Afghan proverb

**From:** [Wendy Loya](#)  
**To:** [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
**Subject:** Notes from Friday call regarding FWS Priority information and possible partnerships with USGS  
**Date:** Friday, March 2, 2018 10:32:35 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.FinalShortList with USGS notes 030218.xlsx](#)

---

Hi John,

No rush on this, just trying to get to you before I head into Denali this weekend. Could you look at the attached table and see if I captured your information on USGS role accurately? Feel free to edit, and then if you could cc Nicole on your response next week she'll have the notes too.

Thank you for providing this information so quickly,  
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:** [Sarena Selbo](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: potential SA funded Arctic projects  
**Date:** Friday, March 2, 2018 11:35:58 PM

---

FYI

Begin forwarded message:

**From:** "Berendzen, Steve" <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>  
**Date:** March 2, 2018 at 11:41:15 AM AKST  
**To:** "Selbo, Sarena" <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Subject:** Re: potential SA funded Arctic projects

I had a meeting with our biologists and Paul this morning regarding priority areas to avoid in the 1002, and I mentioned that you expected to have funding available to cover most of these needs, since some of those priority projects are needed to help identify priority resources. Anyway, I've since told them to keep this info to themselves (after reading this email) when talking with partners about planning for these projects.

just wanted to let you know I've already spilled the beans, but we'll keep it contained :)

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

On Fri, Mar 2, 2018 at 8:35 AM, Selbo, Sarena <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)> wrote:  
please keep close

--  
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

0000007441

**From:** [Wendy Loya](#)  
**To:** [Greta Burkart](#); [Angela Matz](#); [Mark Miller](#); [Janet Jorgenson](#); [Randy Brown](#); [Christopher Latty](#); [Stephen Arthur](#); [Edward Decleva](#); [Tracy Fischbach](#); [Jennifer Reed](#); [Hollis Twitchell](#); [Roger Kaye](#)  
**Cc:** [Drew Crane](#); [Eric Taylor](#); [Joanna Fox](#); [John Trawicki](#); [Stephanie Brady](#); [Steve Berendzen](#); [John Martin](#); [Paul Leonard](#)  
**Subject:** Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Friday, March 2, 2018 11:42:54 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final 022518.xlsx](#)  
[Table 2.3 Stips ROPS BMS Vol1 NPR-A Final IAP FEIS.pdf](#)

---

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.
  - a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.
  - b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.  
You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.
2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.
3. Other columns are locked and cannot be edited. Add
4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leonard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,  
Wendy

**From:** [Matthew Sturm](#)  
**To:** [Wendy Loya](#); [jpearce@usgs.gov](mailto:jpearce@usgs.gov)  
**Cc:** [Leonard, Paul](#); [Chris Larsen](#); [Frank Urban](#)  
**Subject:** Re: Arctic Refuge snow study April 2018  
**Date:** Saturday, March 3, 2018 12:41:49 AM

---

Thanks Wendy. I think this should get things rolling. For the next 3 weeks, Chris Larsen will be the primary contact at UAF, as I am on a long field trip up North. I can be reached best if someone class Betsy Sturm at <sup>66</sup> [REDACTED]. I will be speaking with her every night while in the field.

Matthew

On 3/2/18 3:18 PM, Wendy Loya wrote:

Hi Frank and Matt,

The FWS can contribute to Frank's logistics for the snow survey in April. We can likely do that through and Interagency Agreement. I have also asked John Pearce if the Alaska Science Center might be able to cover this trip to buy us time to get an IAA in place. I think John has reached out to Frank to understand the needs. I understood the costs to be around \$5k but flexible if more to do the best job we can do for a preliminary assessment.

I am headed out of town for the next week so please keep Paul in the loop. Might have cell phone access as it appears Might be too much snow in Denali for our ski/mushing trip!

Wendy

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 Feb 21, 2018, at 08:46, Matthew Sturm <[msturm1@alaska.edu](mailto:msturm1@alaska.edu)> wrote:

Dear Paul:

Having secured some NASA funds, we will be able to fly snow lidar and/or structure from motion over the 1002 area sometime during the first two weeks of April. Chris Larsen (cc'd here) and you should plan to get together to discuss what ought to be covered (ideally), what resources the USFWS might be able to help with (fuel, lodging), and whether we might be able to put a team (perhaps led by Frank Urban of the USGS) on the ground during the flight period.

I will be back in Alaska on the 26th, but leave for field work on

March 4th. I can help coordinate and facilitate, but I think you and Chris can get that started now more efficiently. I would, however, like to be kept in the loop as things develop. I placed a call to Frank to see if he is available...but I don't have an answer yet.

This seems like a positive development.

Matthew

--

Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturml@alaska.edu](mailto:msturml@alaska.edu)

**From:** [Guyer, Scott](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Janet Jorgenson](#)  
**Subject:** Re: Statement of work for North Slope Veg map?  
**Date:** Monday, March 5, 2018 1:30:26 PM  
**Attachments:** [NSSI\\_LandcoverProject\\_Description.doc](#)

---

Wendy & Janet,

I have attached a modification for the North Slope landcover agreement we had with Ducks Unlimited. The mod describes the project and what we wanted as an outcome from the work. I have the entire file here if your looking for something more than this please let me know. There are now more updated methods and higher resolution imagery available to do this kind of work but as always there are cost and limitation issues as well. Please give me a call if you have any questions or need more information.

Scott

On Fri, Mar 2, 2018 at 8:13 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Thanks for the reply, Scott. If you do find any SOWs or Project descriptions for contracting type purposes, can you send those to both Janet (cc'ed here) and I? I will be out of the office March 3-11<sup>th</sup>, so she would like to see it as well.

Thanks, hope you win or whoever you are cheering on wins ☺

Wendy

---

**From:** Scott Guyer [mailto:[sguyer@blm.gov](mailto:sguyer@blm.gov)]  
**Sent:** Friday, March 2, 2018 7:43 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Statement of work for North Slope Veg map?

Wendy, hey I am out of the office today at a hockey tournament. Will be back on Monday and will go through my files and see what I have, thanks!

Sent from my iPhone

On Mar 1, 2018, at 3:59 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Scott,

In order to try to move ahead with a request for an updated vegetation map for

the 1002 area of the Arctic Refuge, I am wondering if you have a Statement of Work or language used to work with ANHP that we might refer to as a starting point?

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)

--

***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!"***

**From:** [Santos, Lynne](#)  
**Bcc:** [fw7allusers-dynamic@fws.gov](mailto:fw7allusers-dynamic@fws.gov)  
**Subject:** Alaska Region RDT NOTES MARCH 5, 2018  
**Date:** Wednesday, March 7, 2018 1:00:55 PM  
**Attachments:** [RDT NOTES 3-5-18.pdf](#)

---

**Region 7 - Alaska Budget and Administration**

**Vision:** We Give the Mission Life!

**Mission:** We strategically partner to provide efficient, effective, and professional support

*Lynne Santos  
FOIA Officer & Administrative Specialist  
1011 E. Tudor Road MS 374  
Anchorage, Alaska 99503  
Tel 907-786-3544  
Fax 907-786-3306*

*“Don't find fault, find a remedy; anybody can complain” - Henry Ford  
“Common sense is genius dressed in its working clothes” -Ralph Waldo Emerson*

**From:** [Jorgenson, Janet](#)  
**To:** [Guyer, Scott](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Statement of work for North Slope Veg map?  
**Date:** Wednesday, March 7, 2018 1:19:39 PM

---

Hello, Scott. Thank you for sending the file. It is a modification of a contract with DU. Could you send the original contract or the original statement of work for the project? I'm hoping there might be more info that we could use to write a SOW. A copy of an actual SOW would be very helpful. I have not seen a SOW for a land cover map contract and we need to find out how much detail should be included.

On Mon, Mar 5, 2018 at 11:30 AM, Guyer, Scott <[sguyer@blm.gov](mailto:sguyer@blm.gov)> wrote:

Wendy & Janet,

I have attached a modification for the North Slope landcover agreement we had with Ducks Unlimited. The mod describes the project and what we wanted as an outcome from the work. I have the entire file here if your looking for something more than this please let me know. There are now more updated methods and higher resolution imagery available to do this kind of work but as always there are cost and limitation issues as well. Please give me a call if you have any questions or need more information.

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Thanks, hope you win or whoever you are cheering on wins ☺

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**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
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Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

*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!"*

--

Janet C. Jorgenson  
Botanist

Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Matz, Angela](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Wednesday, March 7, 2018 3:37:12 PM

---

Wendy,

I (and my teams) are a little confused. Should we be focusing on seismic, exploratory drilling, production, or all three?

Thanks, Angela

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

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You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.

3. Other columns are locked and cannot be edited. Add

4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

th

0000007451

**Please email your updated table to me and Paul Leanard by March 9 , or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

--

Angela Matz, Ph.D.  
U.S. Fish and Wildlife Service  
4700 BLM Road Anchorage, AK 99507-2546  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Johnson, Carl](#)  
**To:** [John Trawicki](#); [Wendy Loya](#); [Crane, Drew](#)  
**Cc:** [Socheata Lor](#)  
**Subject:** Suggestion to cancel Friday's 1002 meeting  
**Date:** Wednesday, March 7, 2018 6:40:13 PM

---

Hello all,

Soch and I were just chatting and came to the conclusion we should probably cancel the 1002 Area meeting set for Friday. Greg and Wendy are out of the office, Karen has a meeting with the Deputy Director at 9:00 on Friday, and Soch is out on Friday.

So, whoever would be running that meeting should probably send out a notice to all affected parties. Or, I could send it.

Thanks!

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
1011 E. Tudor Road,  
Anchorage, AK 99503  
(907) 786-3584

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#)  
**Subject:** Fwd: Draft memo for discussion today  
**Date:** Thursday, March 8, 2018 2:13:09 PM  
**Attachments:** [ESA Memo.docx](#)

---

FYSA

**Nicole Hayes**

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

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

From: **Hayes, Miriam (Nicole)** <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
Date: Thu, Mar 8, 2018 at 11:10 AM  
Subject: Draft memo for discussion today  
To: Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Christopher Putnam <[christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)>, Casey Burns <[ctburns@blm.gov](mailto:ctburns@blm.gov)>, Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>, Marlo Draper <[mdraper@blm.gov](mailto:mdraper@blm.gov)>

**Nicole Hayes**

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

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Thursday, March 8, 2018 4:11:34 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final 022518 SA mammals and caribou.xlsx](#)

---

Attached are my revisions to the caribou and other mammals sections.

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, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

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2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.

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We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

**From:** [Google Calendar](#) on behalf of [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)  
**To:** [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov); [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov); [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov); [sara\\_boario@fws.gov](mailto:sara_boario@fws.gov); [lynne\\_santos@fws.gov](mailto:lynne_santos@fws.gov); [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov); [amee\\_howard@fws.gov](mailto:amee_howard@fws.gov); [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov); [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov); [carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov); [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov); [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov); [doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov); [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov); [jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov); [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov); [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov); [sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov); [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov); [sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** 1002 Coastal Plain Coordination Biweekly Meeting (MSMC) Call in: **b5-CIP** or **b5-CIP**  
**Date:** Thursday, March 8, 2018 4:53:22 PM

---

this meeting has been cancelled for March 9

**1002 Coastal Plain Coordination Biweekly Meeting (MSMC) Call in: **b5-CIP****  
****b5-CIP** or **b5-CIP** Participant: **b5-CIP** )**

**When** Fri Mar 9, 2018 9am – 10am Alaska Time

**Where** FWS-FW7 Mary Smith Media Center/Regional Office ([map](#))

**Video call** **b5-CIP**

**Who**

- [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov) - creator
- [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)
- [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)
- [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)
- Santos, Lynne
- [sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)
- [sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov)
- [jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)
- [carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)
- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)
- [amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)
- [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)
- [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)
- [doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)
- [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)
- [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)
- [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)
- [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)

**From:** [Fischbach, Tracy](#)  
**To:** [Wendy Loya](#); [Paul Leonard](#)  
**Cc:** [Jennifer Reed](#); [Joanna Fox](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Friday, March 9, 2018 10:19:28 AM  
**Attachments:** [20180309\\_ARC\\_Visitor Use 1002 Arctic Refuge Resource Assessment Table.xlsx](#)

---

Attached are the spreadsheet lines for Visitor Use. We expanded them in order to place each study request on a separate line. We also added a line for "socioeconomics" because we didn't see it anywhere else in the document. Our request is fairly specific to visitor use, but we recognize that socioeconomics is a bigger issue than that. We just felt like a line needed to be added to get it on the table.

Please do let me know if you have questions. Jen is at a meeting next week, but I'll be around.

-Tracy

Tracyann S Fischbach  
Natural Resources Planner  
National Wildlife Refuge System - Region 7  
Division of Natural Resources & Conservation Planning  
(907) 786-3369

Hours: Mon - Thurs 6:30 am to 4:00 pm; Friday 9:00 am - 1:00 pm  
"Getting right down and smelling the fresh soil is good for any one." - from the 1913 Handbook for Girl Scouts by W. J. Hoxie

**Need access to Refuge Documents?**

[Online Document Database \(ServCat\)](#)

**Need Refuge land status info for Alaska?**

[FWS Region 7 Land Mapper \(FWS version\)](#)

[FWS Region 7 Land Mapper \(Public version\)](#)

[Region 7 GeoPDF Map Portal](#)

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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**Please email your updated table to me and Paul Leanard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

**From:** [Mark Miller](#)  
**To:** [Leonard, Paul](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Friday, March 9, 2018 11:59:50 AM

---

Thanks...

Mark E. Miller, PhD  
Deputy Director  
North Slope Science Initiative  
[memiller@blm.gov](mailto:memiller@blm.gov)

On Mar 9, 2018, at 09:28, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

No worries Mark,

A few other folks have requested more time. I think the first few days of next week will be fine.

Cheers,  
Paul

On Fri, Mar 9, 2018 at 9:10 AM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Paul, Wendy - the Acoustics group is working on revisions to the spreadsheet content. We're unlikely to get the revised version back to you by the end of the day, but will do so as soon as possible early next week.

Mark

---

**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*

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.

a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.

b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.

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4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leanard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Martin, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Stephanie Brady](#); [Paul Leonard](#); [John Trawicki](#)  
**Subject:** Coastal Plain 1002 Area: BLM NPRA IAP EIS Table 2-3 Review and Comment  
**Date:** Friday, March 9, 2018 11:59:57 AM  
**Attachments:** [Review of NPRA BMP-ROP for 1002 Area 9Mar2018FINAL.docx](#)

---

Wendy

Per you email dated 21 Feb 2018, I have read and reviewed the subject table of NPRA stipulations for BMPs and ROPs relative to their application to the coastal plain 1002 area of Arctic NWR.

There was no suspense for this review. However, as the interdisciplinary resource team comments on recommended studies, which also included the subject table, is due today, my comments are attached for your consideration.

John

**From:** [Burkart, Greta](#)  
**To:** [Wendy Loya](#); [Paul Leonard](#)  
**Cc:** [John Trawicki](#); [Stephen Arthur](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Friday, March 9, 2018 2:53:51 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final.022518\\_GB comments.xlsx](#)  
[WaterResourceAssessment\\_1002\\_area\\_Revised\\_2018.03.09.docx](#)

---

Hi Wendy and Paul,

I have have edited several rows of the resource assessment table (see attached -- comments refer to the original row number, recommended changes were made in red font). I also made related changes to the resource assessment for water, attached the new version to this email, and saved it to the "Edited Assessment Reports" folder on the shared drive (N:\1-Working\Resource Assesments\_Originals (Word not PDF)\Edited Assessment Reports).

This is an overview of comments and edits to the spreadsheet:

- Row 62 -- this is a duplicate of row 84, which should be deleted. Rows 8 and 85 are duplicates - remove one of them.
- Row 76 and 65 are duplicates. Delete one of them.
- Row 31 -- Consider deleting row 31 (baseline fish sampling) integrating into row 81 to increase efficiency and save on costs. See more information below in row 81.
- Row 81 -- Consider combining with 31. The Arctic Refuge aquatic ecologist has been collaborating with the USFWS contaminant staff and the head of the Alaska Department of Environmental Conservation fish contaminant monitoring program to plan a statistically valid FY18 study to collect fish tissues for baseline contaminant analyses while surveying aquatic habitats. Collecting the additional samples for baseline contaminants assessment would be very low cost. AKDEC is willing to fund processing of some of the samples right away. Additional samples could be archived and processed when funding is available. The new recommended action should read: "***Fish surveys have only been conducted in 2.3% of lakes in the 1002 area and most surveys were brief reconnaissance surveys only targeting nine spine stickleback. Fish distribution models and sample collection protocols have been developed for other areas on the North Slope, but their applicability to the 1002 area is unknown. Macroinvertebrate diversity is an indicator of ecosystem health and has never been assessed in 1002 area. Baseline contaminants surveys of fish have only been conducted at a small handful of sites. To identify high-value aquatic habitats, inform planning, and provide baseline samples there is a need to document fish presence; test the applicability of existing fish survey protocols and distribution models, and collect baseline macroinvertebrate, fish e-DNA, and fish tissue samples to archive for future analysis (for more information, see resource assessment for contaminants). Results would include the following: traditional fish surveys in up to 60 lakes, validation of protocols and fish distribution models for applicability in the 1002 area, baseline macroinvertebrate and fish contaminant samples collected in up to 60 high-priority lakes, and e-DNA samples available to test for fish presence in up to 200 lakes. Refuge staff and two arctic fisheries biologists can conduct this field work in FY18. (FY 18 cost: \$76,150, FY19 cost: \$82,000, Lead: Greta Burkart, John Trawicki, Phaedra Budy, Angela Matz, Sandy Talbot, Damian Menning, and Robert Gerlach)***"
- Row 77 -- I have modified this action so that it can be completed in FY18. See additional information on cost and logistics associated with implementing. Recommended action: "***Comparing aquatic macroinvertebrate diversity in the NPR-A***"

*on 6 untapped lakes and 6 lakes where the entire permitted volume has been withdrawn and the vulnerability is similar to a range of lake types in the coastal plain 1002 area (FY18-19 costs: \$80,000, potential leads: BLM, USFWS, USGS) will help assess the efficacy of existing BMPs. This effort would require 5 field days and could be conducted by the Arctic Refuge aquatic ecologist with assistance from BLM in identifying potential study lakes that are vulnerable to water withdrawals and have had permitted volumes withdrawn. Estimated costs for FY18 or 19: \$63,480 (sample analysis by contract lab: 41,000, five days of field food: \$230, helicopter and fuel: \$21,850). Note the cost would be \$10,000 cheaper and the project would have a lower carbon footprint if a helicopter already based on the North Slope is used. The power to detect change in macroinvertebrate community composition is unknown, but could at least be estimated if this study were conducted. If additional funds were available surveys of the following could be conducted as well: wet meadow zones, recharge rates, and winter water quality."* Projected Annual Cost: \$53,500-63,500"

- Row 78 -- Consider deleting and incorporating into row 83. Most actions associated with 78 (geospatial database) are covered under 83. The only action not covered under 83 is delineating lake watersheds. Consider adding the task of delineating lake watersheds to row 83. This task should be fairly inexpensive if done with existing IFSAR data and could be contracted to Ben Jones at UAF who has tentatively agreed to take this on. Fix eventually under needs column. Change recommended action to the following: ***"Develop geospatial inventory of hydrologic connectivity, watershed areas and relative snowpack to assess lake vulnerability/recharge potential (potential FY18-20, leads: USGS, USFWS). Integrate this effort with surveys of snow pack (see resource assessment for snow and climate) and updates of the national wetland inventory updates (see resource assessment for wetlands) and national hydrography dataset."***
- Row 79 -- fix "eventually" under needs column.
- Row 80 -- See minor changes to purpose and action and fix "eventually" under needs column. Change recommended action to the following: ***"Identify open-water areas and aufeis-associated fish habitat. Evaluate terrestrial mammal use of aufeis, aufeis contributions to late summer flows, and the importance of aufeis and ice-dam flooding in recharging fish and wildlife habitat in the Canning, Hulahula, Itkilyariak, Katakturak, and Sadlerochit river drainages (FY18/19 costs: \$, USFWS and USGS)."***
- Row 82: Change the purpose to the following: "Change purpose to the following: ***"to understand factors regulating fish and water bird habitat"***
- Row 83 -- The following change should be made to the 3rd sentence: ***"Coupling that with National Hydrologic Database Hydrography mapping is important to understanding the hydrology, especially recharge and hydrologic connectivity of lakes and rivers, and habitat..."*** Add the following sentence prior to the last sentence: ***"To assess potential recharge of lakes that may be vulnerable to water withdrawals, lake watersheds need to be delineated using existing digital elevation models"***. Watershed delineation could be done easily with existing digital elevation models and could be done in-house or contracted out to Ben Jones at UAF who has already agreed to work on this effort. If this is changed, row 78 should be deleted as it would be duplicative. Change the last sentence to the following: ***"FWS would work with BLM and others to define the scope to meet the management needs and then FWS and contractor(s) would complete the task as defined."*** Note -- It would be great to have ABR and/or ecoscience to conduct vegetation surveys, but at least part of the hydrologic work could be completed by USFWS staff (e.g. the Arctic Refuge has an underutilized GS-12 aquatic ecologist who is ready and waiting to

conduct FY18 work and has been planning lake surveys to assess fish presence, hydrologic connectivity, and contaminants but it is still not clear if this work would be funded. We also have two North Slope fish biologists based at Toolik who are volunteering to assist with fisheries surveys from 22 July to 6 August).

- Row 84 -- This should be deleted - it is a duplicate of 62. If it is not deleted, consider changing the resource column from "water/wetlands/vegetation" to "public health"
- Row 85 - Consider deleting because it is a duplicate of row 8
- Row 86 - Would all components of this action be covered under 83 (develop wetland inventory map)? If so, this row should be nested under row 83 or deleted. If this row is not deleted change "contribute" to "contribute"

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

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4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

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Thank you for your great effort on this,

Sincerely,

Wendy

**From:** [Pearce, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Miriam \(Nicole\) Hayes](#)  
**Subject:** Re: Notes from Friday call regarding FWS Priority information and possible partnerships with USGS  
**Date:** Friday, March 9, 2018 5:46:17 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.FinalShortList with USGS notes 030218 USGS edits.xlsx](#)

---

Hi Wendy,

Attached is a revised version of USGS response to this list regarding possible USGS involvement. I'm cc'ing Nicole for her awareness.

Best,  
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 Fri, Mar 2, 2018 at 8:32 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi John,

No rush on this, just trying to get to you before I head into Denali this weekend. Could you look at the attached table and see if I captured your information on USGS role accurately? Feel free to edit, and then if you could cc Nicole on your response next week she'll have the notes too.

Thank you for providing this information so quickly,

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:** [Jorgenson, Janet](#)  
**To:** [Wendy Loya](#); [Paul Leonard](#)  
**Subject:** Draft SOW for land cover map  
**Date:** Friday, March 9, 2018 6:42:36 PM  
**Attachments:** [1002-LandCoverMapSOW-Draft.docx](#)

---

To do this draft, I copied a NPS SOW and altered it. It wasn't exactly a SOW for a land cover map, so the satellite processing parts of this need more detail. It's a start anyway.

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Rose, Joshua](#)  
**To:** [Wendy Loya](#)  
**Subject:** 1002 refuge resource assessment  
**Date:** Friday, March 9, 2018 6:45:09 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final 022518 JRose revision.xlsx](#)

---

here are my estimates for soils.

--

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

From: Wendy Loya  
 To: [redacted]  
 Subject: Re: OIA Request for Review of the Draft 1002 Area Resource Assessment Recommended Studies Table  
 Date: Monday, March 12, 2018, 11:20:47 AM  
 Attachments: [redacted]

Wendy, John, and Paul,  
 Please replace all our ent records under Resource Air Quality with those atached.  
 Please make sure contaminant s is spelled correctly throughout.  
 Please replace Contaminant s Line 30 with the following:

Resource	Purpose	Need	Recommended Action	Projected Annual Cost	Number of years (Use 6 if >5)	Comments
Contaminants	Establish baseline of contaminants in sensitive resources	To ensure contaminants of concern are below threshold levels during and after industrial activities in line with ANELCA (continued use of subsistence resources, and quality and quantity of waste resources) National Environmental Policy Act (NEPA) Clean Water Act (CWA) Endangered Species Act (ESA) Marine Mammal Protection Act (MMPA)	Develop statistically sound contaminant monitoring program with enough power to detect biologically significant changes in contaminant concentrations, and changes in contaminants concentrations that may exceed regulatory thresholds. Evaluate sampling locations and methods from previous contaminant baseline study for sufficiency as monitoring sites and methods, and evaluate current data for suitability as baseline data. Add site-specific monitoring sites and methods depending upon project description to provide baseline (pre-project) data. For groundwater monitoring, include location, depth, and monitoring interval of groundwater wells that would identify changes from baseline specifically for [redacted].			The USFWS does not currently have sufficient Environmental Contaminants staff to conduct review studies, or evaluate NEPA documents, for oil and gas exploration and drilling in the 1002 area.

On Fri Mar 2 2018 at 9:22 PM Wendy Loya <Wendy.loya@fws.gov> wrote:

Dear Resource Assessment team leads

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

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  - In some instances we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible stipulations for your subject and adjust the Recommended Action if needed. You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations focusing on AB-B-2 if differences across Alternatives.
- Please include a Budget and number of years if you can estimate these however not essential at this time.
- Other columns are locked and cannot be edited. Add
  - If you need to update your Resource Assessment document to add or change anything based on new information please do so. You can find them in P:\1002\Arctic\Refuge\1.Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive please contact IT to have them assign it to your profile.

Please email your updated table to me and Paul Leonard by March 9<sup>th</sup> or let us know if you do not plan to make any changes. If you have questions during the week of March 5<sup>th</sup> please ask Paul. If you are unable to meet this deadline please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area. We'll adapt this document as we learn more.

Thank you for your great effort on this

Sincerely

Wendy

U.S. Fish and Wildlife Service  
 1011 North Central Expressway  
 Fort Collins, CO 80526-3043  
 Phone: 970-251-1510  
 Fax: 970-251-1716  
 TDD: 970-251-1716

**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#); [Joanna Fox](#); [Eric Taylor](#); [Drew Crane](#); [Tracy Fischbach](#); [Serena Sweet](#); [Stephanie Brady](#); [Marlo Draper](#); [John Trawicki](#); [Steve Berendzen](#); [Nichelle \(Shelly\) Jones](#)  
**Subject:** Meet at BLM in Anchorage this week: FWS-BLM Weekly Check-in on Coastal Plain 1002  
**Date:** Monday, March 12, 2018 12:32:06 PM

---

Hi Everyone,

Please add any agenda items you may have to our Google Doc:

[https://docs.google.com/document/d/1WV13\\_WB:KPJBoyKtdh9GTw5AUXzJXAEZBc73RMTp8p0/edit](https://docs.google.com/document/d/1WV13_WB:KPJBoyKtdh9GTw5AUXzJXAEZBc73RMTp8p0/edit)

For FWS staff in Anchorage, we will be meeting at BLM again this week as there is another meeting at 3pm there that some need to attend.

-----Original Appointment-----

From: [mnhayes@blm.gov](mailto:mnhayes@blm.gov) [<mailto:mnhayes@blm.gov>]

Sent: Friday, March 9, 2018 3:12 PM

To: [mnhayes@blm.gov](mailto:mnhayes@blm.gov); [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov); [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov); [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov); [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov); [ssweet@blm.gov](mailto:ssweet@blm.gov); [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov); [mdraper@blm.gov](mailto:mdraper@blm.gov); [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov); [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov); [njones@blm.gov](mailto:njones@blm.gov)

Subject: FWS-BLM Weekly Check-in on Coastal Plain 1002

When: Tuesday, March 13, 2018 2:00 PM-3:00 PM (UTC-09:00) Alaska.

Where: **b5-CIP**, participant passcode **b5-CIP**, BLM-AK SO Kodiak B Room, FWS-FW7 Science Application Conference Room/Regional Office

Please send any agenda topics to me by noon each Tuesday. We can have our first weekly check-in next week!

**From:** [Miller, Mark](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Miriam \(Nicole\) Hayes](#); [Lisa Gleason](#); [Lorene Lynn](#)  
**Subject:** Re: Webinar presentations on 21 Mar in lieu of face-face NSSI STAP meeting?  
**Date:** Monday, March 12, 2018 2:38:05 PM  
**Attachments:** [image001.png](#)

---

Thank you.....

---

**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

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-- E. O. Wilson, *Consilience*

On Mon, Mar 12, 2018 at 12:03 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Mark,

I would defer to Nicole/BLM on presenting on the overall plan for the Arctic Refuge 1002 Area Leasing plan, but I would be happy to share what we have been doing at FWS with regards to our Resource Assessments and Science Planning. So: 1) Yes, 2) Visual ppt 3) 10-15 min plus question time seems like a reasonable amount for a webinar.

Thanks for your patience while I was out of the office.

Wendy

**From:** Miller, Mark [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]  
**Sent:** Thursday, March 8, 2018 12:08 PM  
**To:** Carolina Behe <[carolina@iccalaska.org](mailto:carolina@iccalaska.org)>; Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>; Wendy M. Loya, PhD <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Debbie A Nigro <[DNigro@blm.gov](mailto:DNigro@blm.gov)>  
**Cc:** Lisa Gleason <[lgleason@blm.gov](mailto:lgleason@blm.gov)>; Lorene Lynn <[lorene.lynn@rmcalaska.com](mailto:lorene.lynn@rmcalaska.com)>  
**Subject:** Webinar presentations on 21 Mar in lieu of face-face NSSI STAP meeting?

Carolina, Nicole, Wendy, and Deb -

Since we had to cancel the 21 March STAP meeting during which you had kindly agreed to speak, some STAP members have asked whether you might still be able to provide your

0000007474

background presentations via webinar during the same time since most already have blocked off that day.

We can handle the necessary technological arrangements if you're willing to do this (thanks to Lisa Gleason and her technical skills....).

As soon as you can, please let us know:

1. Whether you are willing / able to do this.

If so, thank you, and then also let us know -

2. Whether you will give a visual presentation (i.e., PowerPoint) or oral presentation only.

3. How much time you would like (allowing time for questions / answers). The original agenda allotted 3 hours for this group of talks (including break). I expect we can shorten considerably without sacrificing much content or discussion.

Thanks in advance.

Mark

9:00 am -10:00 am	Background presentation: Indigenous food security	Invited speaker – Carolina Behe, ICC Alaska
10:00 am – 10:15 am	Break	
10:15 am – 11:00 am	Background presentation: BLM-USFWS updates on Arctic National Wildlife Refuge Coastal Plain	Invited speakers – Nicole Hayes (BLM Alaska State Office) and Wendy Loya (USFWS)
11:00 am – 12:00 pm	Background presentation: BLM actions to understand & address aviation impacts, NPR-A; Follow-up discussion	Invited speaker –Debbie Nigro, BLM Arctic District Office

---

**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](#)

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**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: Notes from Friday call regarding FWS Priority information and possible partnerships with USGS  
**Date:** Monday, March 12, 2018 4:19:44 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.FinalShortList with USGS notes 030218 USGS edits.xlsx](#)

---

FYI from USGS on Priority Table for 1002 science needs

**From:** Pearce, John [mailto:[jpearce@usgs.gov](mailto:jpearce@usgs.gov)]  
**Sent:** Friday, March 9, 2018 3:46 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Cc:** Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Subject:** Re: Notes from Friday call regarding FWS Priority information and possible partnerships with USGS

Hi Wendy,

Attached is a revised version of USGS response to this list regarding possible USGS involvement. I'm cc'ing Nicole for her awareness.

Best,  
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?employeecid=173>

On Fri, Mar 2, 2018 at 8:32 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi John,

No rush on this, just trying to get to you before I head into Denali this weekend. Could you look at the attached table and see if I captured your information on USGS role accurately? Feel free to edit, and then if you could cc Nicole on your response next week she'll have the notes too.

Thank you for providing this information so quickly,  
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:** [Paul Leonard](#)  
**Subject:** FW: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Monday, March 12, 2018 4:24:48 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final 022518 SA mammals and caribou.xlsx](#)

---

**From:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Thursday, March 8, 2018 2:11 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Attached are my revisions to the caribou and other mammals sections.

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, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.
  - a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.
  - b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.
3. Other columns are locked and cannot be edited. Add

4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leanard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,  
Wendy

**From:** [Leonard, Paul](#)  
**To:** [Wendy Lova](#)  
**Subject:** 1002 Report for PCH - Griffith et al. 2002  
**Date:** Monday, March 12, 2018 4:25:23 PM

---

[https://www.researchgate.net/profile/Robert\\_White10/publication/265155770\\_Section\\_3\\_The\\_Porcupine\\_Caribou\\_Herd/links/5408ab050cf2187a6a6bd0e1/Section-3-The-Porcupine-Caribou-Herd.pdf](https://www.researchgate.net/profile/Robert_White10/publication/265155770_Section_3_The_Porcupine_Caribou_Herd/links/5408ab050cf2187a6a6bd0e1/Section-3-The-Porcupine-Caribou-Herd.pdf)

--  
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:** FW: 1002 refuge resource assessment  
**Date:** Monday, March 12, 2018 4:25:52 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final 022518 JRose revision.xlsx](#)

---

**From:** Rose, Joshua [mailto:[joshua\\_rose@fws.gov](mailto:joshua_rose@fws.gov)]  
**Sent:** Friday, March 9, 2018 4:45 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** 1002 refuge resource assessment

here are my estimates for soils.

--

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

**From:** [Wendy Loya](#)  
**To:** [Scott Guyer](#)  
**Subject:** FW: Draft SOW for land cover map  
**Date:** Monday, March 12, 2018 4:57:03 PM  
**Attachments:** [1002-LandCoverMapSOW-Draft.docx](#)

---

Hi Scott,

I will give you a call shortly, here is the SOW that Janet drew up based on what you provided and other conversations. It may be useful for us talking about what new research opportunities are available per your voicemail.

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:** Jorgenson, Janet [mailto:[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)]  
**Sent:** Friday, March 9, 2018 4:43 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>  
**Subject:** Draft SOW for land cover map

To do this draft, I copied a NPS SOW and altered it. It wasn't exactly a SOW for a land cover map, so the satellite processing parts of this need more detail. It's a start anyway.

--

Janet C. Jorgenson  
Botanist  
Arctic National Wildlife Refuge  
101 12th Ave, Rm 236  
Fairbanks, Alaska 99701

907-456-0216

**From:** [Wendy Loya](#)  
**To:** [John Pearce](#)  
**Subject:** FW: 1002 Report for PCH - update to Griffith et al. 2002  
**Date:** Monday, March 12, 2018 5:37:08 PM

---

Hi John,

I wanted to keep you updated as I get more information on the studies on our Arctic Refuge Priority Information Needs table. It looks like Fish and Wildlife, Environment Yukon has nearly completed an update on habitat suitability analyses for the Porcupine Caribou Herd, for data since Griffiths et al. 2002 (article link below). It is in internal review with the Porcupine Herd Technical Committee (or some members), and to be determined when and where published.

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:** Leonard, Paul [mailto:[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)]  
**Sent:** Monday, March 12, 2018 2:25 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** 1002 Report for PCH - Griffith et al. 2002

[https://www.researchgate.net/profile/Robert\\_White10/publication/265155770\\_Section\\_3\\_The\\_Porcupine\\_Caribou\\_Herd/links/5408ab050cf2187a6a6bd0e1/Section-3-The-Porcupine-Caribou-Herd.pdf](https://www.researchgate.net/profile/Robert_White10/publication/265155770_Section_3_The_Porcupine_Caribou_Herd/links/5408ab050cf2187a6a6bd0e1/Section-3-The-Porcupine-Caribou-Herd.pdf)

--

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

0000007484

**From:** Wendy Loya  
**To:** Paul Leonard  
**Subject:** FW: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Tuesday, March 13, 2018 11:42:31 AM

**From:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Tuesday, March 13, 2018 9:28 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Hi Wendy,

I should add that increasing the sample of collared adult females would contribute substantially to the other info needs identified for caribou, particularly improved estimates of calving sites and birth rates, seasonal ranges and habitat use, movement patterns, etc. Thus, this is really the backbone of the other proposed studies.

Steve

Stephen M. Arthur, Ph.D.  
*Supe Voo y Willi'je Biologist  
A'ci'e National Wildlife Refuge  
101 12th Ave., Room 216  
Fairbanks, AK 99701  
(907) 455-1830*

On Tue, Mar 13, 2018 at 9:15 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote

Thanks Steve. I wanted to make sure I could understand and explain this request upwards.

Thank you for your help on both the Resource Assessment table and the North Slope Research activities data call last week. I will share that 2<sup>nd</sup> document when compiled with the other programs by COB Wednesday.

A few things appear to be evolving with the EIS process and I should have more information to share Thursday (had originally hoped to have that info today but meeting is delayed to Wednesday 3pm). One is that the entire EIS may be contracted out for writing which still represents an effort in contributing information to inform the EIS and also review.

Steve B has expressed concerns about how to reconcile the planned research studies which need to be put in place ASAP with items on the priority list. I hope to bring together a group including you to discuss the updated list along with any new info from BLM. It is my intent to provide information on what science is needed approximately when for the EIS/Exploration/Development stages in the Arctic Refuge 1002 area to help programs make their own decisions on how to allocate resources.

More soon  
Wendy

**From:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Tuesday, March 13, 2018 9:00 AM

**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Hi Wendy,

This proposal is to increase the monitoring intensity above current levels (to approximately twice the current level). Power analyses completed at various times in the past by Brad Griffith and his staff have suggested that this increase is necessary to obtain sufficient precision to detect biologically significant changes in adult female survival rates (roughly +/- 5% or so). This assumes that FWS and the other collaborators will continue to provide current funding levels, and the indicated amount would be over and above that. The funds would be used to purchase collars, pay for additional captures, and data acquisition. The estimated amount is for the best-case sample size; however, any increase above current levels would improve our estimation ability.

Steve

Stephen M. Arthur, Ph.D.  
*Supe Voo y Willi'je Biologist  
A'ci'e National Wildlife Refuge  
101 12th Ave., Room 216  
Fairbanks, AK 99701  
(907) 455-1830*

On Mon, Mar 12, 2018 at 3:59 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote

Hi Steve

I have a question about what is needed to accomplish this high priority

<b>Caribou</b>	Monitor caribou movement to understand habitat use prior to development	ANILCA Int'l Agreement for Conservation of Porcupine Caribou Herd	Monitoring data are needed to identify calving areas and seasonal ranges and to quantify caribou recruitment and survival; pre-development data will be used to work with industry to ensure habitat connectivity where possible.	\$250,000
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I believe the FWS provides ~\$40K towards multi-agency monitoring at present. Does this priority recommend additional funding for improved collaring sample size for data analyses or other needs? Or if we could continue to commit at the current level, we could maintain a robust monitoring program? Or if there were additional funding for this, we could use the current funding towards other high priority needs?

Thanks, welcome any thoughts by email or phone  
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:** Arthur, Stephen [mailto:[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)]  
**Sent:** Thursday, March 8, 2018 2:11 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Attached are my revisions to the caribou and other mammals sections.

Steve

Stephen M. Arthur, Ph.D.  
*Supe Voo y Willi'je Biologist  
A'ci'e National Wildlife Refuge  
101 12th Ave., Room 216  
Fairbanks, AK 99701  
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Thank you for your great effort on this.

Sincerely,  
Wendy

**From:** [Miller, Mark](#)  
**To:** [Wendy Loya](#); [Paul Leonard](#)  
**Cc:** [Tracy Fischbach](#); [Davyd Betchkal](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Tuesday, March 13, 2018 12:55:34 PM  
**Attachments:** [2018\\_0313\\_1002 Arctic Refuge Resource Assessment Table v.Final.022518\\_acoustic.edits.xlsx](#)

---

Wendy, Paul -

Attached, version with edits to the acoustic (noise) content in the third worksheet.

Thanks for the additional time and for your efforts to lead and coordinate all of this.

Mark

---

**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*

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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Thank you for your great effort on this,

Sincerely,

Wendy

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** RE: Frank U. assistance  
**Date:** Tuesday, March 13, 2018 12:59:36 PM

---

I have sent a request to be routed through BLM via our Point of Contact on 1002 program. I will talk with her this afternoon to understand if she can help and let you know after 3pm today what I find out. I offered for FWS to cover time/travel costs.

**From:** Leonard, Paul [mailto:[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)]  
**Sent:** Tuesday, March 13, 2018 9:44 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Frank U. assistance

Plan B:

I believe he is listed as a maintenance/ trail breaker for the white mountains.

Colter Franz  
BLM - Fairbanks DO  
9072671323

--

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

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: Request for BLM Assistance with 1002 area snow survey  
**Date:** Tuesday, March 13, 2018 2:12:13 PM

---

Hi Wendy,  
I will get back to you on this in the morning.  
Thanks!  
Nicole

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

On Tue, Mar 13, 2018 at 10:44 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Nicole,

I am not sure that you are the person to ask, but wanted to start with you and feel free to refer me to someone else in BLM.

One of our high priority studies for the 1002 area is to understand both polar bear habitat and snow distribution for seismic is snow surveys and improved drift modeling (described in our Priority Information needs table from the Resource Assessments).

Dr. Matthew Sturm of UAF was able to secure funding from NASA to fly preliminary LiDAR and Structure for Motion (SFM) imagery this April. This aircraft-based remote sensing needs to be ground-truthed for validation. Dr. Frank Urban of USGS is able to help with the ground survey, as he regularly monitors snow across the north slope, including NPRA and the 1002 area, at his remote stations. USGS has agreed to provide funding for his winter logistics in April. BLM has apparently typically supplied an employee, Eric Yeager in Fairbanks, to accompany Dr. Urban on his surveys for the past 12 years. I believe Colter Franz is an alternate with similar expertise in taking the measurements and operating a snowmachine in Arctic environments. I could use your assistance in routing a request for Eric or Colter's time from April 10-19th. The FWS could cover their salary and travel if needed; we do not currently have an employee with their skill set.

I can raise this question at the meeting with Karen and Ted, but not sure if that is the right time or place. I welcome your advice.

Thank you,  
Wendy

Dr. Wendy M. Loya, Coordinator  
Arctic Landscape Conservation Cooperative (LCC)  
Anchorage, Alaska  
907.786.3532 (office)  
907.277.2942 (mobile)

**From:** [Trawicki, John](mailto:John.Trawicki@fws.gov)  
**To:** [Wendy Loya](mailto:Wendy.Loya@fws.gov)  
**Subject:** Fwd: Article FYI - DOI budget (references \$9.5 million for BLM oil/gas program for 1002 Area and NPR-A)  
**Date:** Tuesday, March 13, 2018 2:27:58 PM

---

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

**From:** **Keogh, Warren** <[warren\\_keogh@fws.gov](mailto:warren_keogh@fws.gov)>  
**Date:** Tue, Mar 13, 2018 at 12:11 PM  
**Subject:** Article FYI - DOI budget (references \$9.5 million for BLM oil/gas program for 1002 Area and NPR-A)  
**To:** John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Douglas Campbell <[douglas\\_campbell@fws.gov](mailto:douglas_campbell@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, John Brewer <[john\\_brewer@fws.gov](mailto:john_brewer@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

<https://www.eenews.net/energywire/2018/03/13/stories/1060076095>

Excerpt follows....

"Under its oil and gas program, BLM proposes to build out several functions.

Most of the increase — \$9.5 million — would be dedicated to programs in Senate Energy and Natural Resources Chairwoman Lisa Murkowski's (R) home state of Alaska. Those funds would establish a competitive oil and gas program in the Arctic National Wildlife Refuge's coastal plain and support permitting in the National Petroleum Reserve-Alaska."

--  
Warren Keogh  
Paralegal Specialist  
Water Resources Branch, Division of Natural Resources  
U.S. Fish & Wildlife Service  
[1011 East Tudor Rd.](https://www.fws.gov/1011-East-Tudor-Rd-Anchorage-Alaska-99503)  
[Anchorage, Alaska 99503](https://www.fws.gov/1011-East-Tudor-Rd-Anchorage-Alaska-99503)

Phone: (907) 786-3388

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

0000007491

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

**From:** [Leonard, Paul](#)  
**To:** [Miller, Mark](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Tuesday, March 13, 2018 4:00:24 PM

---

Thanks Mark!

Cheers,  
Paul

On Tue, Mar 13, 2018 at 10:55 AM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:  
Wendy, Paul -

Attached, version with edits to the acoustic (noise) content in the third worksheet.

Thanks for the additional time and for your efforts to lead and coordinate all of this.

Mark

---

**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  
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– E. O. Wilson, *Consilience*

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.
  - a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.
  - b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc)

to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.
3. Other columns are locked and cannot be edited. Add
4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leonard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Miller, Mark](#)  
**To:** [Carolina Behe](#); [Debora Nigro](#); [Wendy Loya](#)  
**Subject:** Re: Webinar presentations on 21 Mar in lieu of face-face NSSI STAP meeting?  
**Date:** Tuesday, March 13, 2018 5:19:34 PM  
**Attachments:** [image001.png](#)

---

Carolina, Debbie, and Wendy -

In the webinar invitation to be distributed ~tomorrow, I'd like to provide invitees with a brief introduction to each of you and your presentation. I think it would be best if these were in your words rather than mine. If you agree, please provide me with -

1-2 sentence introductory bio for yourself

2-3 sentence description of your presentation (e.g., 1-2 sentence setup / background / problem statement, followed by 'this presentation will discuss...')

Thank you.

Mark

---

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*

On Tue, Mar 13, 2018 at 12:28 PM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Carolina, Debbie, Wendy - thanks again for your willingness to provide webinar presentations to our STAP / SSC group on the morning of 3/21. Nicole Hayes is unable to participate and speak about BLM's work related to the Arctic Refuge, but I'll go over this briefly as a means of introducing Wendy's talk.

We'll be doing the webinar via a GoToMeeting link (thank you Lisa) and a teleconference line. I'll distribute this information and an agenda to you and our STAP / SSC members later today or tomorrow.

I'll run the GoToMeeting from my desktop, so **I ask that you all share your presentations with me by COB on Tue 20th.**

Agenda (times are approximate & flexible):

9:00 a.m. Mark Miller - Introductions and overview

9:10 Carolina Behe - Indigenous Food Security

9:40 Wendy Loya - Overview of FWS Resource Assessments and Science Planning for the Coastal Plain of the Arctic National Wildlife Refuge

10:10 Debbie Nigro - Overview of BLM Aircraft Take-off and Landing Data for NPR-A

10:40 Mark - Wrap-up

**If you prefer a different title for your presentation, please let me know.**

Mark

---

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*

On Mon, Mar 12, 2018 at 12:03 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Mark,

I would defer to Nicole/BLM on presenting on the overall plan for the Arctic Refuge 1002 Area Leasing plan, but I would be happy to share what we have been doing at FWS with regards to our Resource Assessments and Science Planning. So: 1) Yes, 2) Visual ppt 3) 10-15 min plus question time seems like a reasonable amount for a webinar.

Thanks for your patience while I was out of the office.

Wendy

**From:** Miller, Mark [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]

**Sent:** Thursday, March 8, 2018 12:08 PM

**To:** Carolina Behe <[carolina@iccalaska.org](mailto:carolina@iccalaska.org)>; Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>; Wendy M. Loya, PhD <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Debbie A Nigro <[DNigro@blm.gov](mailto:DNigro@blm.gov)>

**Cc:** Lisa Gleason <[lgleason@blm.gov](mailto:lgleason@blm.gov)>; Lorene Lynn <[lorene.lynn@rmcalaska.com](mailto:lorene.lynn@rmcalaska.com)>

**Subject:** Webinar presentations on 21 Mar in lieu of face-face NSSI STAP meeting?

Carolina, Nicole, Wendy, and Deb -

Since we had to cancel the 21 March STAP meeting during which you had kindly agreed to speak, some STAP members have asked whether you might still be able to provide your

background presentations via webinar during the same time since most already have blocked off that day.

We can handle the necessary technological arrangements if you're willing to do this (thanks to Lisa Gleason and her technical skills....).

As soon as you can, please let us know:

1. Whether you are willing / able to do this.

If so, thank you, and then also let us know -

2. Whether you will give a visual presentation (i.e., PowerPoint) or oral presentation only.

3. How much time you would like (allowing time for questions / answers). The original agenda allotted 3 hours for this group of talks (including break). I expect we can shorten considerably without sacrificing much content or discussion.

Thanks in advance.

Mark

9:00 am -10:00 am	Background presentation: Indigenous food security	Invited speaker – Carolina Behe, ICC Alaska
10:00 am – 10:15 am	Break	
10:15 am – 11:00 am	Background presentation: BLM-USFWS updates on Arctic National Wildlife Refuge Coastal Plain	Invited speakers – Nicole Hayes (BLM Alaska State Office) and Wendy Loya (USFWS)
11:00 am – 12:00 pm	Background presentation: BLM actions to understand & address aviation impacts, NPR-A; Follow-up discussion	Invited speaker –Debbie Nigro, BLM Arctic District Office

---

**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*

**From:** [Santos, Lynne](#)  
**Bcc:** [fw7allusers-dynamic@fws.gov](mailto:fw7allusers-dynamic@fws.gov)  
**Subject:** Regional Director Team Notes March 12, 2018  
**Date:** Tuesday, March 13, 2018 5:58:28 PM  
**Attachments:** [RDT Notes 3-12-18.docx](#)

---

Have a great week!                      Lynne

**Region 7 - Alaska Budget and Administration**

**Vision:** We Give the Mission Life!

**Mission:** We strategically partner to provide efficient, effective, and professional support

*Lynne Santos  
FOIA Officer & Administrative Specialist  
1011 E. Tudor Road MS 374  
Anchorage, Alaska 99503  
Tel 907-786-3544  
Fax 907-786-3306*

*“Don't find fault, find a remedy; anybody can complain” - Henry Ford  
“Common sense is genius dressed in its working clothes” -Ralph Waldo Emerson*

**From:** [Wendy Loya](#)  
**To:** [Nicole Hayes](#)  
**Subject:** FW: Arctic Resources Bibliography  
**Date:** Tuesday, March 13, 2018 7:28:17 PM

---

Nicole,

Please share this with contractors and others as needed:

Arctic National Wildlife Refuge webpage: [Partial Bibliography of Scientific Publications](#) page; the list can be downloaded as a pdf format.

On behalf of the 1002 team,  
Wendy

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

**From:** [Swaim, Michael](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Julian Fischer](#); [Eric Taylor](#)  
**Subject:** Subject: Quick Questions: Data Call for North Slope Studies  
**Date:** Tuesday, March 13, 2018 7:46:48 PM  
**Attachments:** [FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies DRAFT 031318 \(1\).xlsx](#)

---

Hello Wendy,

Julian is currently away from the office, so he was unable to open the Excel file. Therefore, he passed your request on to me.

I entered the missing information for the ACP Coastal Plain Breeding Pair Survey and Teshekpuk Lake Molting Goose Survey and have attached a copy of the updated file. Please let me know if you need anything more.

Thanks,

Michael

---

Michael Swaim  
Wildlife Biologist / GIS  
Migratory Bird Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503  
Tel: 907-786-3504  
Fax: 907-786-3541

**From:** [Wendy Loya](#)  
**To:** [Swaim, Michael](#)  
**Cc:** [Julian Fischer](#); [Eric Taylor](#)  
**Subject:** Re: Subject: Quick Questions: Data Call for North Slope Studies  
**Date:** Tuesday, March 13, 2018 9:30:38 PM

---

Thank you very much, Michael. I greatly appreciate your help getting this to the finish line.

Wendy

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 13, 2018, at 17:46, Swaim, Michael <[michael\\_swaim@fws.gov](mailto:michael_swaim@fws.gov)> wrote:

Hello Wendy,

Julian is currently away from the office, so he was unable to open the Excel file. Therefore, he passed your request on to me.

I entered the missing information for the ACP Coastal Plain Breeding Pair Survey and Teshekpuk Lake Molting Goose Survey and have attached a copy of the updated file. Please let me know if you need anything more.

Thanks,

Michael

---

Michael Swaim  
Wildlife Biologist / GIS  
Migratory Bird Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503  
Tel: 907-786-3504  
Fax: 907-786-3541

<FWS 2018 North Slope Research DOI 1002 Data Call 031418 and NSSI Annual Studies DRAFT 031318 (1).xlsx>

**From:** [Leonard, Paul](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: 1002 refuge resource assessment  
**Date:** Tuesday, March 13, 2018 11:03:21 PM

---

Also, I forgot to mention -- Josh requested that he be included on future correspondence (to resource leads) pertaining to this effort.

Cheers,  
Paul

On Mon, Mar 12, 2018 at 2:25 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

**From:** Rose, Joshua [mailto:[joshua\\_rose@fws.gov](mailto:joshua_rose@fws.gov)]  
**Sent:** Friday, March 9, 2018 4:45 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** 1002 refuge resource assessment

here are my estimates for soils.

--

Joshua Rose

Aquatic Ecologist

USFWS Region 7 I&M

101 12th Ave., Rm 216

Fairbanks, AK 99701

phone: (907) 456-0409

--

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
101 12th Ave. Room 216

0000007503

Fairbanks, AK 99701  
(907) 456-0445

**From:** [Google Calendar](#) on behalf of [Paul Leonard](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** 1002 Spreadsheet Discussion  
**Start:** Wednesday, March 14, 2018 1:30:00 PM  
**End:** Wednesday, March 14, 2018 2:30:00 PM  
**Attachments:** [invite.ics](#)

more details **b5-CIP**

1002 Spreadsheet Discussion

Wendy to call Paul - re-visit spreadsheet for any changes to prioritization

When  
Wed Mar 14, 2018 11:30am - 12:30pm Alaska Time

Video call  
<https://hangouts.google.com> **b5-CIP**

Calendar  
[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Who

- [paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)
- organizer
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Going?

Yes **b5-CIP**

Maybe **b5-CIP**

No **b5-CIP**

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. Learn More <<https://support.google.com/calendar/answer/37135#forwarding>>.

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Stephanie Brady](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Does this list look right for CCP?  
**Date:** Wednesday, March 14, 2018 8:41:05 AM  
**Attachments:** [For CCP.docx](#)

---

**Nicole Hayes**

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

**From:** [Crane Johnson - NOAA Federal](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Scott Lindsey - NOAA Federal](#); [Karen Murphy](#); [Donald Moore](#); [Dave Streubel](#)  
**Subject:** Re: short-fused need  
**Date:** Wednesday, March 14, 2018 9:42:06 AM

---

Wendy,

Dave and I would be available to meet next week (Tues-Fri) to discuss rivers in that area and our forecast operations and capabilities. I think you've captured the real need for continued data collection at sites with historic information. Consideration might also be given to shorter concurrent collection at other basins to develop relationships to rivers with longer records. A review of recent EIS documents might help to understand what hydrologic information has been used (or identified as missing) for recent development projects to the west (Point Thompson etc.). A meeting to brainstorm and share ideas/information sounds worthwhile. I'd suggest including the USGS as well.

Crane

On Tue, Mar 13, 2018 at 4:49 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Everyone,

I haven't had time to stop and reply to this email with the thoughtfulness needed, in part because the conversation should include other partners that would help us identify what we really need. But in a nutshell, there has been gage monitoring on the Hulahula for more than 5 years and there was I believe 5 yrs of monitoring on the Canning which we hope to resume. We don't know what will happen in the future with oil and gas leasing in the 1002 area of the Arctic National Wildlife Refuge, but it could be possible that water withdrawal permits could be requested for the Refuge given the lack of lakes compared to the rest of the north slope. What types of summary information or hydrologic modeling/forecasting is needed, I don't know without some further research, but it would be good to know how we could best use these data and if they might be useful in predicting flow in other rivers, etc.

I am unclear of the timeline for any requests, but could collect FWS and other partners for a meeting possibly next week or have a conversation with you all at NOAA first to brainstorm and share information?

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)

Karen

Just a heads up - I will be out of the office starting tomorrow and not back until 3/26. I'm cc'ing Dave Streubel and Crane Johnson in my office - please put Wendy in touch with them and we will see what we can do to help you. Do you have any information on what you need from us? Carven thought that it was some information on the Canning but wasn't sure?

Thanks

Scott

On Mon, Mar 12, 2018 at 8:53 AM, Karen Murphy <[karen\\_a\\_murphy@fws.gov](mailto:karen_a_murphy@fws.gov)> wrote:

Thank you, Carven. Wendy Loya is back in the office this week. I am cc'ing her on this message so she can reach out to Scott.

Thank you for being willing to explore this opportunity.

Best Regards,

Karen

Sent from my iPhone

On Mar 12, 2018, at 8:42 AM, Carven Scott - NOAA Federal <[carven.scott@noaa.gov](mailto:carven.scott@noaa.gov)>

wrote:

Karen...Please go ahead and work with Scott Lindsey directly on the short-fused need on the Arctic Coastal Plain. R/-c

--

Regional Director

NOAA/NWS Alaska Region Headquarters

Lead, NOAA Alaska Regional Team

[222 West 7th Avenue #23](#)  
[Anchorage, AK 99513-7575](#)

<http://weather.gov/arh>

Office - [\(907\)271-5126](tel:(907)271-5126)

Fax - [\(907\)271-3711](tel:(907)271-3711)

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Crane Johnson, P.E.  
Service Coordination Hydrologist  
NWS Alaska Pacific River Forecast Center  
[benjamin.johnson@noaa.gov](mailto:benjamin.johnson@noaa.gov)  
[907.266.5158](tel:907.266.5158)

<http://www.weather.gov/aprfc/>

**From:** [Trawicki, John](#)  
**To:** [Granfors, Diane](#); [Wendy Loya](#); [Steve Berendzen](#)  
**Subject:** Re: 1002 fisheries survey proposal  
**Date:** Wednesday, March 14, 2018 10:10:41 AM

---

Diane-

Greta said she was going to revise the proposal. We are trying to schedule a meeting with Steve B., Steve Arthur, Wendy for Thursday to discuss the Resource Assessment report study recommendations, EFN projects, I&M funded projects... Stop by after your web meeting this morning to discuss.

john t

On Tue, Mar 13, 2018 at 1:42 PM, Granfors, Diane <[diane\\_granfors@fws.gov](mailto:diane_granfors@fws.gov)> wrote:  
Have you seen this? Is it a priority?

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

**From:** **Burkart, Greta** <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>  
**Date:** Tue, Mar 13, 2018 at 12:32 PM  
**Subject:** 1002 fisheries survey proposal  
**To:** Diane Granfors <[diane\\_granfors@fws.gov](mailto:diane_granfors@fws.gov)>

Hi Diane,

I have attached a revised proposal and budget request (\$73,593) for fish surveys that would be conducted in association with Janet's seismic work.

The budget includes funding for two crews to conduct traditional fish surveys at up to 30 of the largest lakes that do not freeze to the bottom and e-DNA surveys at up to 100 lakes. We would spend 12-24 hours at each lake when conducting traditional fish surveys. During this time we would also collect basic water quality data with a multi-parameter probe, macroinvertebrate samples to archive for future processing, and fish tissue for contaminants analyses by the State of Alaska.

Thanks and let me know if you have any questions,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428

0000007510

email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

--

-----  
Diane Granfors, PhD  
Alaska Region Inventory and Monitoring Coordinator  
National Wildlife Refuge System  
U.S. Fish and Wildlife Service  
1011 East Tudor Road, MS 235  
Anchorage, AK 99503  
[diane\\_granfors@fws.gov](mailto:diane_granfors@fws.gov)  
907-786-3429

*Collaborative ecosystem science to inform National Wildlife Refuge System conservation decisions in Alaska.*

--

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

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

**From:** [Brady, Stephanie](#)  
**To:** [Hayes, Miriam \(Nicole\)](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Does this list look right for CCP?  
**Date:** Wednesday, March 14, 2018 10:29:54 AM  
**Attachments:** [Arctic CCP\\_03142018\\_sbedits.docx](#)

---

Hi there - I revised the Arctic CCP table and attached my edits. Let me know if you want to discuss. 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

On Wed, Mar 14, 2018 at 6:40 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

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

**From:** [Longan, Sara](#)  
**To:** [Rogers, David E \(DFG\)](#); [Taquilik Hepa](#); [Leanna Mack](#); [James Kendall](#); [Greg Siekaniec](#); [Sarena Selbo](#); [rglenn@asrc.com](#); [Hansen, Heidi R \(DNR\)](#); [Kaja Brix - NOAA Federal](#); [Herbert Frost](#); [Debora Cooper](#); [Mark Fesmire](#); [Amy Holman - NOAA Federal](#); [Aimee Devaris](#); [Dee Williams](#); [Cheryl Rosa](#); [Jamie Robinson, CG D17 Arctic Programs](#); [Scott Marsteller](#); [Karen Mouritsen](#); [Gregory Dudgeon](#)  
**Cc:** [Cynthia Jacobson](#); [Wendy Loya](#); [Mark Miller](#); [Jenifer Kohout](#); [Lisa Gleason](#); [Jess Grunblatt](#); [Guyer, Scott](#); [Sweet, Serena](#); [Ted Murphy](#); [faith.martineau@alaska.gov](#)  
**Subject:** Re: SAVE THE DATE: Next NSSI Oversight Group Meeting, Wednesday March 21 1:00-3:30 ANC  
**Date:** Wednesday, March 14, 2018 12:20:52 PM  
**Attachments:** [NSSI OG 03 21 18.docx](#)  
[2017 11 08 NSSI OG.docx](#)  
[NSSI OG Charter 2013.pdf](#)  
[2017 1101 NorthSlopeStudiesMeetingNotes.docx](#)  
[NSSI NS Studies Review Background Paper.docx](#)

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On behalf of Chair, David Rogers, please find the attached agenda for the 3/21 NSSI Oversight Group meeting. If you have additional agenda item requests, please send them to myself and David. I have included background information and meeting materials. Please note, David would like to take action on, at minimum, this agenda item:  
- NSSI Chair and Vice Chair nominations

Please also note: NSSI and NSB met in Barrow last December to clarify the role NSSI might play in advancing the "North Slope Studies Efficiency Review" effort that kicked off Nov 1, 2017, with many subsequent collaborative discussions with NSSI members, partners, and stakeholders. We drafted the attached background paper with a recommendation to the NSSI OG. We hope this effort, and NSSI and NSB's updates, will generate a dialog at this OG meeting, resulting in additional guidance on next steps from the Oversight Group.

We look forward to seeing you in Anchorage.

Thank you,

Sara Longan

|

--

Sara Longan, PhD  
Executive Director  
North Slope Science Initiative (NSSI)  
907-271-3431

**From:** [Latty, Christopher](#)  
**To:** [Wendy Loya](#); [Leonard, Paul](#)  
**Subject:** Fwd: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Wednesday, March 14, 2018 1:05:00 PM  
**Attachments:** [Updated Resource Table Latty 3-14.docx](#)

---

Hi Wendy - here is the updated list. Sorry about the tardiness in getting this to you!!

Cheers  
Chris

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

**From:** **Wendy Loya** <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Date:** Wed, Mar 14, 2018 at 10:41 AM  
**Subject:** RE: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**To:** Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>

Chris, could you give me a call at your earliest convenience...just a quick question. John Pearce at USGS provided this information with regards to the Recommended study/action you updated below, and I want to understand if this action could be accomplished with analysis of existing information or what/how new surveys would be done.

*USGS is completing ana analysis of USFWS Arctic Coastal Plain waterbird aerial survey examining change in abundance and distribution of species over a 26-year period for entire Arctic Coastal Plain (includes NPR-A, Prudhoe Bay, and 1002 area). Final product to be available in September 2018. Additional analyses could be undertaken depending upon need.*

Thanks!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

0000007514

907.227.2942 (mobile)

**From:** Latty, Christopher [mailto:[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)]

**Sent:** Wednesday, March 14, 2018 8:55 AM

**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>

**Cc:** Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>

**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Here is the first line for breeding bird surveys. I'll send the others in a couple hours.

Cheers

Chris

Purpose: Provide contemporary information on breeding bird abundance, distribution, and habitat use patterns.

Need: Define important areas and habitats for breeding birds to help guide leasing plans, EIS stipulations, and exploration and development activities.

Action: Conduct aerial- and ground-based surveys of breeding birds. Species groups should include waterfowl, loons, gulls, shorebirds, raptors, and landbirds and should include both area-wide and intensive site-specific surveys. Because this information may be important to leasing, and because year-to-year variability will require baseline data to be collected over several years, surveys should begin as soon as possible. Ecological mapping data (vegetation, snow cover, elevation, etc.) should be determined at intensively monitored sites to allow fine-scale habitat modeling.

Annual Cost: \$175K for 5 years

0000007515

On Wed, Mar 14, 2018 at 8:18 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Chris,

You may have spoken with Paul already, but we would like to get the updated Resource Assessment for birds as soon as possible. Conversations on funding priorities are advancing, and it would be good to get the updated bird information in the table.

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:** Wednesday, March 7, 2018 7:48 AM

**To:** Latty, Christopher <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>

**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Hi Chris,

I picked that date as next week is spring break. But most important is getting good info so if you need to go into next week to do that, that is ok.

0000007516

Thanks!

Wendy

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 6, 2018, at 23:01, Latty, Christopher <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)> wrote:

Hi Wendy,

Just got into this today. After going through it and also looking over some of the other Assessments, I already have a fair amount of edits. I'm planning to take leave Thursday and Friday, and would like to run some of the changes past other folks (some of whom are also out this week), so I'm not sure I'll have it completed by Friday. How exact is the 3/9 deadline?

Cheers

Chris

On Fri, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.

a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.

b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.

3. Other columns are locked and cannot be edited. Add

4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leanard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

--

Christopher Latty

US Fish and Wildlife Service

Arctic NWR

[101 12th Avenue](#)

[Room 236](#)

[Fairbanks, AK 99701](#)

cell 907-347-4300

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Christopher Latty

US Fish and Wildlife Service

Arctic NWR

[101 12th Avenue](#)

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cell 907-347-4300

--

Christopher Latty

US Fish and Wildlife Service

Arctic NWR

101 12th Avenue

Room 236

Fairbanks, AK 99701

cell 907-347-4300

**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#); [Ted Murphy](#); [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov); [Eileen Frost](#); [John Pearce](#); [Karen Mouritsen](#); [Serena Sweet](#); [Marlo Draper](#); [Nichelle \(Shelly\) Jones](#); [Durelle Smith](#); [Aimee Devaris](#); [Leslie Rosenberger](#); [Karen Clark](#)  
**Subject:** Weekly Catch up Meeting: Document for Discussion  
**Date:** Wednesday, March 14, 2018 2:54:59 PM  
**Attachments:** [Discussion DRAFT Arctic Refuge Resource Assessment Table v.FinalShortList with USGS and FWS notes 031418.pdf](#)

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Dear BLM and USGS Collaborators,

Attached is a PDF that contains the draft table of FWS identified priority information needs that were shared by Greg Siekaniec on February 25<sup>th</sup>. I have added additional information on rough cost estimates, notes from USGS and notes from FWS based on additional information gathered since we shared the original table.

You will see studies highlighted in green first, which represent studies that seem like they would be part of the EIS. Following are studies in Blue which are identified as being most immediately useful for habitat identification/conservation needs. Finally, I have included the Polar Bear Studies that are most needed to get to the Marine Mammal Protection Act Authorizations. All of this is draft for discussion.

I look forward to talking with you this afternoon,  
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:** [Lynnda Kahn](#)  
**Subject:** RE: Kenai Refuge Oil and Gas program contact for Arctic Refuge 1002 area  
**Date:** Wednesday, March 14, 2018 4:28:40 PM

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Hi Lynnda,

I just got back from a week off and had some deadlines, but I am hoping to loop you in to our conversations. My schedule tomorrow is evolving, but would you be available to talk tomorrow at 230 or 3pm? I can call you at your office number if that the best way to reach you.

Thank you for the reminder,  
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:** Kahn, Lynnda [mailto:[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 2:26 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Cc:** Nicole Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>; John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>; Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>; Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>  
**Subject:** Re: Kenai Refuge Oil and Gas program contact for Arctic Refuge 1002 area

Hi Wendy, I just wanted to check in and make sure you folks don't need to talk with me this week. In your March 2nd email, you'd previously indicated you might want to talk this week. I will be out of the office on Friday, so just giving you a heads-up. Thanks.

*Lynnda*

*Lynnda Kahn | Fish & Wildlife Biologist*

*Kenai National Wildlife Refuge  
P.O. Box 2139 | Soldotna, AK 99669  
(907) 260-2818*

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On Fri, Mar 2, 2018 at 8:48 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

| Hi Lynnda,

Thank you so much for your email. I expect we can use your insight and experience as we move forward working with BLM on the EIS and also in describing how to manage the Refuge and BLM leasing program together.

I am copying Nicole Hayes who is the lead for BLM on the Arctic Refuge Leasing EIS, as she may have questions for you directly as she prepares Cooperating Agency MOUs, etc.. John Trawick is the Refuges Division Point of Contact and Stephanie Brady and Tracy are our planning experts, so also cc'ed here so they know you are a potential resource for information.

I will be out of town next week, but I would like to talk with you the week of the 12<sup>th</sup> and loop you in to the conversation if that hasn't already happened between the 5<sup>th</sup> and 12<sup>th</sup>.

Thank you, I look forward to talking with you soon,  
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:** Kahn, Lynnda [mailto:[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)]  
**Sent:** Thursday, March 1, 2018 4:42 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>; Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>  
**Subject:** Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

Hi Wendy, Andy asked me to get with you to see if there's anything I might be able to help with. I work closely with BLM on the Refuge, in Swanson River Field and the Beaver Creek Unit. I routinely provide comments on Sundry Notices, which BLM then incorporates into their Conditions of Approval when any type of surface disturbance is to occur in conjunction with a particular project.

I also have a good working relationship with the operator (Hilcorp Alaska) and issue Special Use Permits for work outside of BLM's jurisdiction. If you need assistance in the future, please feel free to contact me. Thanks Wendy.

*Lynnda*

*Lynnda Kahn | Fish & Wildlife Biologist*

Kenai National Wildlife Refuge  
P.O. Box 2139 | Soldotna, AK 99669  
(907) 260-2818

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

From: **Loranger, Andy** <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>  
Date: Wed, Feb 21, 2018 at 10:28 AM  
Subject: Fwd: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan  
To: Lynnnda Kahn <[lynnnda\\_kahn@fws.gov](mailto:lynnnda_kahn@fws.gov)>

fyi, Lynnnda if you have any ideas on this or in general for offering help as needed, perhaps just give Wendy a call?

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

From: **Damberg, Doug** <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>  
Date: Wed, Feb 21, 2018 at 7:54 AM  
Subject: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan  
To: Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>, Bob Rebarchik <[bob\\_rebarchik@fws.gov](mailto:bob_rebarchik@fws.gov)>, David Zabriskie <[david\\_zabriskie@fws.gov](mailto:david_zabriskie@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Kenton Moos <[kenton\\_moos@fws.gov](mailto:kenton_moos@fws.gov)>, Mike Spindler <[mike\\_spindler@fws.gov](mailto:mike_spindler@fws.gov)>, Nathan Hawkaluk <[nathan\\_hawkaluk@fws.gov](mailto:nathan_hawkaluk@fws.gov)>, Ross Flagen <[ross\\_flagen@fws.gov](mailto:ross_flagen@fws.gov)>, Shawn Bayless <[shawn\\_bayless@fws.gov](mailto:shawn_bayless@fws.gov)>, Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Susan Georgette <[susan\\_georgette@fws.gov](mailto:susan_georgette@fws.gov)>, Tina Moran <[tina\\_moran@fws.gov](mailto:tina_moran@fws.gov)>  
Cc: Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, Socheata Lor <[Socheata\\_Lor@fws.gov](mailto:Socheata_Lor@fws.gov)>

All:

I'm forwarding this just as an FYI (for most of you, that is) to provide a little more background and insight into how the agencies are planning to address Arctic NWR 1002 oil/gas activities mandated in the recent tax legislation. Most of this is new to all of us, and so things may have seemed a little chaotic at times, but a plan is coming together on how to we will address the workload and needs. As I mentioned on the VTC yesterday, there may be times that we will need help from folks at refuges around the region to help write, review or do other tasks to meet deadlines. I want to extend my appreciation up front for any help you may be able to provide.

If you have any questions, don't hesitate to call.

Thanks,  
d

Doug Damberg  
Refuge Supervisor, AK North Zone  
U.S. Fish and Wildlife Service  
[1011 E. Tudor Rd.; Anchorage, AK 99503](http://1011.E.Tudor.Rd.;Anchorage,AK.99503)

Office: (907) 786-3329

Cell: (907) 947-6302

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Date: Tue, Feb 20, 2018 at 4:53 PM

Subject: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

To: Charles Hamilton <[charles\\_hamilton@fws.gov](mailto:charles_hamilton@fws.gov)>, Greta Burkart <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>, Janet Jorgenson <[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)>, Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, Edward Decleva <[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)>, Peter Butteri <[peter\\_butteri@fws.gov](mailto:peter_butteri@fws.gov)>, Randy Brown <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>, Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>, Roy Churchwell <[roy\\_churchwell@fws.gov](mailto:roy_churchwell@fws.gov)>, Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>, Jim Johnson <[jim\\_a\\_johnson@fws.gov](mailto:jim_a_johnson@fws.gov)>, Steve Lewis <[steve\\_b\\_lewis@fws.gov](mailto:steve_b_lewis@fws.gov)>, Michael Swaim <[michael\\_swaim@fws.gov](mailto:michael_swaim@fws.gov)>, Julian Fischer <[julian\\_fischer@fws.gov](mailto:julian_fischer@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>, Ryan Wilson <[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Hollis Twitchell <[hollis\\_twitchell@fws.gov](mailto:hollis_twitchell@fws.gov)>, Susan LaKonski <[susan\\_lakonski@fws.gov](mailto:susan_lakonski@fws.gov)>, Jennifer Reed <[jennifer\\_reed@fws.gov](mailto:jennifer_reed@fws.gov)>, Angela Matz <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)>, Roger Kaye <[roger\\_kaye@fws.gov](mailto:roger_kaye@fws.gov)>, Eva Patton <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)>, Robbin Lavine <[robbin\\_lavine@fws.gov](mailto:robbin_lavine@fws.gov)>

Cc: Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Dear FWS colleagues,

As Greg Siekaniec announced at the February All Staff meeting, I am serving as the Regional Point of Contact (POC) for the 1002 Coastal Plain of the Arctic National Wildlife Refuge Program to establish and oil and gas program. I work with POCs from the Arctic Refuge (Steve Berendzen and Joanna Fox), NWRs program (John Trawicki), FES (Drew Crane) and Migratory Birds (Eric Taylor) and other FWS staff to gather and share information with the Regional Director, BLM, USGS and other agencies. FWS staff can go to their POC for more information on the status of the process or with any questions.

At this time, it appears BLM-Alaska will lead preparation of an EIS to establish a leasing plan for the 1002 Coastal Plain of the Arctic National Wildlife Refuge, and the FWS Alaska Region is expecting to be a cooperating agency and provide information on the natural resources and other areas where we have expertise, to inform the plan. The goal communicated with BLM from DC is a lease sale within 2 years. I would like to provide some additional information to help you understand how FWS could contribute to the EIS, although there is still uncertainty until BLM is told to publish a Notice of Intent to prepare an EIS and we are established as a partner in its development.

The primary way which BLM manages activities during exploration and development is through stipulations (Stips) and required operating procedures (ROPs) or best management practices(BMPs). I'd like to help you become familiar with these as they may answer questions you have already about how we will protect the lands, waters and wildlife of the

Refuge while making the lands available for leasing and development. They will also help you start thinking about how you will be asked to use your knowledge to inform a Leasing Plan for the 1002 Coastal Plain in the Arctic National Wildlife Refuge in the coming months, as we will want to identify where on the coastal plain different Stips and ROPs should be applied.

Attached is a PDF that contains the ‘Alternative stipulations and required operating procedures/best management practices’ presented in the NPRA Integrated Activity Plan (IAP)/Final EIS, which is the title of the plan approved by BLM in 2013 for management of the entire NPRA. BLM evaluated 4 Alternatives in the Draft EIS (A,B,C,D), and added a 5<sup>th</sup> alternative in the Record of Decision (ROD; B-2). It gets complicated to understand all of the alternatives, but the Preferred Alternative B-2 which they selected and are currently using to manage the NPRA generally provided a balance between making lands available for leasing and making high value habitats unavailable for leasing or leased but with protective measures. Because the legislation states that the 1002 Coastal Plain shall be managed in a manner similar to NPRA, it is possible that the EIS for the Refuge will include Alternatives that involve unique combinations of these Stips.

Of particular interest will be on original page 84, which is the start of the ADDITIONAL PROTECTIONS THAT APPLY IN SELECT BIOLOGICALLY SENSITIVE AREAS (“K” Stips/BMPs). These are the primary tools for protecting sensitive and high value habitats/resources.

I have contacted the BLM Arctic District Field Office Acting Manager Shelly Jones to discuss how we can bring FWS and BLM staff together to discuss these Stips/ROPS/BMPs and what might be different for the Arctic Refuge. I will share more information when we have a plan, and welcome your feedback on what might make that most useful as well as what other information/training needs you might have to help us work with BLM on an EIS.

If you want to view or download the full NPRA IAP/FEIS, you can do so here:

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

BLM has a handy NEPA handbook that can help you understand the process, and identify where you’ll have the opportunity to contribute to writing and/or review:

[https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook\\_H-1790\\_508.pdf](https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf)

Again, this is all tentative until we receive further direction from BLM.

Thank you,  
Wendy

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

--

Andy Loranger  
Refuge Manager  
Kenai National Wildlife Refuge  
907-260-2804





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:** Kahn, Lynnda [mailto:[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)]

**Sent:** Thursday, March 1, 2018 4:42 PM

**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

**Cc:** Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>; Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>

**Subject:** Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

Hi Wendy, Andy asked me to get with you to see if there's anything I might be able to help with. I work closely with BLM on the Refuge, in Swanson River Field and the Beaver Creek Unit. I routinely provide comments on Sundry Notices, which BLM then incorporates into their Conditions of Approval when any type of surface disturbance is to occur in conjunction with a particular project.

I also have a good working relationship with the operator (Hilcorp Alaska) and issue Special Use Permits for work outside of BLM's jurisdiction. If you need assistance in the future, please feel free to contact me. Thanks Wendy.

*Lynnda*

*Lynnda Kahn | Fish & Wildlife Biologist*

*Kenai National Wildlife Refuge*

*P.O. Box 2139 | Soldotna, AK 99669*

(907) 260-2818



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

From: **Loranger, Andy** <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>  
Date: Wed, Feb 21, 2018 at 10:28 AM  
Subject: Fwd: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan  
To: Lynnda Kahn <[lynnda\\_kahn@fws.gov](mailto:lynnda_kahn@fws.gov)>

fyi, Lynnda if you have any ideas on this or in general for offering help as needed, perhaps just give Wendy a call?

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From: **Damberg, Doug** <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>  
Date: Wed, Feb 21, 2018 at 7:54 AM  
Subject: FYI Fwd: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan  
To: Andy Loranger <[andy\\_loranger@fws.gov](mailto:andy_loranger@fws.gov)>, Bob Rebarchik <[bob\\_rebarchik@fws.gov](mailto:bob_rebarchik@fws.gov)>, David Zabriskie <[david\\_zabriskie@fws.gov](mailto:david_zabriskie@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Kenton Moos <[kenton\\_moos@fws.gov](mailto:kenton_moos@fws.gov)>, Mike Spindler <[mike\\_spindler@fws.gov](mailto:mike_spindler@fws.gov)>, Nathan Hawkaluk <[nathan\\_hawkaluk@fws.gov](mailto:nathan_hawkaluk@fws.gov)>, Ross Flagen <[ross\\_flagen@fws.gov](mailto:ross_flagen@fws.gov)>, Shawn Bayless <[shawn\\_bayless@fws.gov](mailto:shawn_bayless@fws.gov)>, Stephen Miller <[stephen\\_a\\_miller@fws.gov](mailto:stephen_a_miller@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Susan Georgette <[susan\\_georgette@fws.gov](mailto:susan_georgette@fws.gov)>, Tina Moran <[tina\\_moran@fws.gov](mailto:tina_moran@fws.gov)>  
Cc: Ronnie Sanchez <[ronnie\\_sanchez@fws.gov](mailto:ronnie_sanchez@fws.gov)>, Socheata Lor <[Socheata\\_Lor@fws.gov](mailto:Socheata_Lor@fws.gov)>

All:

I'm forwarding this just as an FYI (for most of you, that is) to provide a little more background and insight into how the agencies are planing to address Arctic NWR 1002 oil/gas activities mandated in the recent tax legislation. Most of this is new to all of us, and so things may have seemed a little chaotic at times, but a plan is coming together on how to we will address the workload and needs. As I mentioned on the VTC yesterday, there may be times that we will need help from folks at refuges around the region to help write, review or do other tasks to meet deadlines. I want to extend my appreciation up front for any help you may be able to provide.

If you have any questions, don't hesitate to call.

Thanks,

d

Doug Damberg

Refuge Supervisor, AK North Zone

U.S. Fish and Wildlife Service

[1011 E. Tudor Rd.; Anchorage, AK 99503](#)

[Office: \(907\) 786-3329](#)

Cell: (907) 947-6302

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

From: **Wendy Loya** <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

Date: Tue, Feb 20, 2018 at 4:53 PM

Subject: Arctic Refuge 1002 Coastal Plain: NPRA FEIS and Table of Stipulations used in developing NPRA leasing plan

To: Charles Hamilton <[charles\\_hamilton@fws.gov](mailto:charles_hamilton@fws.gov)>, Greta Burkart <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)>, Janet Jorgenson <[janet\\_jorgenson@fws.gov](mailto:janet_jorgenson@fws.gov)>, Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>, Edward Decleva <[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)>, Peter Butteri <[peter\\_butteri@fws.gov](mailto:peter_butteri@fws.gov)>, Randy Brown <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>, Christopher Latty <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)>, Roy Churchwell <[roy\\_churchwell@fws.gov](mailto:roy_churchwell@fws.gov)>, Richard Lanctot <[richard\\_lanctot@fws.gov](mailto:richard_lanctot@fws.gov)>, Jim Johnson <[jim\\_a\\_johnson@fws.gov](mailto:jim_a_johnson@fws.gov)>, Steve Lewis <[steve\\_b\\_lewis@fws.gov](mailto:steve_b_lewis@fws.gov)>, Michael Swaim <[michael\\_swaim@fws.gov](mailto:michael_swaim@fws.gov)>, Julian Fischer <[julian\\_fischer@fws.gov](mailto:julian_fischer@fws.gov)>, Ted Swem <[ted\\_swem@fws.gov](mailto:ted_swem@fws.gov)>, Ryan Wilson <[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>, Hollis Twitchell <[hollis\\_twitchell@fws.gov](mailto:hollis_twitchell@fws.gov)>, Susan LaKomski <[susan\\_lakomski@fws.gov](mailto:susan_lakomski@fws.gov)>, Jennifer Reed <[jennifer\\_reed@fws.gov](mailto:jennifer_reed@fws.gov)>, Angela Matz <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)>, Roger Kaye <[roger\\_kaye@fws.gov](mailto:roger_kaye@fws.gov)>, Eva Patton <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)>, Robbin Lavine <[robbin\\_lavine@fws.gov](mailto:robbin_lavine@fws.gov)>

Cc: Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Drew Crane <[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephanie Brady <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)>, Tracy Fischbach <[tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>

Dear FWS colleagues,

As Greg Siekaniec announced at the February All Staff meeting, I am serving as the Regional Point of Contact (POC) for the 1002 Coastal Plain of the Arctic National

0000007531

Wildlife Refuge Program to establish and oil and gas program. I work with POCs from the Arctic Refuge (Steve Berendzen and Joanna Fox), NWRs program (John Trawicki), FES (Drew Crane) and Migratory Birds (Eric Taylor) and other FWS staff to gather and share information with the Regional Director, BLM, USGS and other agencies. FWS staff can go to their POC for more information on the status of the process or with any questions.

At this time, it appears BLM-Alaska will lead preparation of an EIS to establish a leasing plan for the 1002 Coastal Plain of the Arctic National Wildlife Refuge, and the FWS Alaska Region is expecting to be a cooperating agency and provide information on the natural resources and other areas where we have expertise, to inform the plan. The goal communicated with BLM from DC is a lease sale within 2 years. I would like to provide some additional information to help you understand how FWS could contribute to the EIS, although there is still uncertainty until BLM is told to publish a Notice of Intent to prepare an EIS and we are established as a partner in its development.

The primary way which BLM manages activities during exploration and development is through stipulations (Stips) and required operating procedures (ROPs) or best management practices (BMPs). I'd like to help you become familiar with these as they may answer questions you have already about how we will protect the lands, waters and wildlife of the Refuge while making the lands available for leasing and development. They will also help you start thinking about how you will be asked to use your knowledge to inform a Leasing Plan for the 1002 Coastal Plain in the Arctic National Wildlife Refuge in the coming months, as we will want to identify where on the coastal plain different Stips and ROPs should be applied.

Attached is a PDF that contains the 'Alternative stipulations and required operating procedures/best management practices' presented in the NPRA Integrated Activity Plan (IAP)/Final EIS, which is the title of the plan approved by BLM in 2013 for management of the entire NPRA. BLM evaluated 4 Alternatives in the Draft EIS (A,B,C,D), and added a 5<sup>th</sup> alternative in the Record of Decision (ROD; B-2). It gets complicated to understand all of the alternatives, but the Preferred Alternative B-2 which they selected and are currently using to manage the NPRA generally provided a balance between making lands available for leasing and making high value habitats unavailable for leasing or leased but with protective measures. Because the legislation states that the 1002 Coastal Plain shall be managed in a manner similar to NPRA, it is possible that the EIS for the Refuge will include Alternatives that involve unique combinations of these Stips.

Of particular interest will be on original page 84, which is the start of the ADDITIONAL PROTECTIONS THAT APPLY IN SELECT BIOLOGICALLY SENSITIVE AREAS ("K" Stips/BMPs). These are the primary tools for protecting sensitive and high value habitats/resources.

I have contacted the BLM Arctic District Field Office Acting Manager Shelly Jones to discuss how we can bring FWS and BLM staff together to discuss these Stips/ROPS/BMPs and what might be different for the Arctic Refuge. I will share more information when we have a plan, and welcome your feedback on what might make that most useful as well as what other information/training needs you might have to help us work with BLM on an EIS.

If you want to view or download the full NPRA IAP/FEIS, you can do so here:  
<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=14702>

BLM has a handy NEPA handbook that can help you understand the process, and identify where you'll have the opportunity to contribute to writing and/or review:

[https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook\\_H-1790\\_508.pdf](https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf)

Again, this is all tentative until we receive further direction from BLM.

Thank you,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Andy Loranger

Refuge Manager

Kenai National Wildlife Refuge

907-260-2804

**From:** [Wendy Loya](#)  
**To:** [Christian Zimmerman](#)  
**Subject:** FW: Weekly Catch up Meeting: Document for Discussion  
**Date:** Wednesday, March 14, 2018 5:08:44 PM  
**Attachments:** [Discussion DRAFT Arctic Refuge Resource Assessment Table v.FinalShortList with USGS and FWS notes 031418.pdf](#)

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For this call

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**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 12:55 PM  
**To:** Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>; Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>; 'greg siekaniec@fws.gov' <[gregory\\_siekaniec@fws.gov](mailto:gregory_siekaniec@fws.gov)>; Eileen Frost <[efrost@blm.gov](mailto:efrost@blm.gov)>; John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>; Karen Mouritsen <[kmourits@blm.gov](mailto:kmourits@blm.gov)>; Serena Sweet <[ssweet@blm.gov](mailto:ssweet@blm.gov)>; Marlo Draper <[mdraper@blm.gov](mailto:mdraper@blm.gov)>; Nichelle (Shelly) Jones <[njones@blm.gov](mailto:njones@blm.gov)>; Durelle Smith <[dpsmith@usgs.gov](mailto:dpsmith@usgs.gov)>; Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>; Leslie Rosenberger <[rosenberger@blm.gov](mailto:rosenberger@blm.gov)>; Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>  
**Subject:** Weekly Catch up Meeting: Document for Discussion

Dear BLM and USGS Collaborators,

Attached is a PDF that contains the draft table of FWS identified priority information needs that were shared by Greg Siekaniec on February 25<sup>th</sup>. I have added additional information on rough cost estimates, notes from USGS and notes from FWS based on additional information gathered since we shared the original table.

You will see studies highlighted in green first, which represent studies that seem like they would be part of the EIS. Following are studies in Blue which are identified as being most immediately useful for habitat identification/conservation needs. Finally, I have included the Polar Bear Studies that are most needed to get to the Marine Mammal Protection Act Authorizations. All of this is draft for discussion.

I look forward to talking with you this afternoon,  
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:** [Leonard, Paul](#)  
**To:** [John Trawick](#); [Doug Damberg](#); [Stephanie Brady](#); [Joanna Fox](#); [Socheata Lor](#); [Steve Berendzen](#); [Drew Crane](#); [Ella Wagener](#); [Eric Taylor](#); [Tracy Fischbach](#); [John Martin](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Arctic Refuge 1002 Area Assessments Table (Updated)  
**Date:** Wednesday, March 14, 2018 6:19:22 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table v.Final with notes 031418.xlsx](#)

---

Hello all,

Following up on our call today -- I wanted to pass along the updated spreadsheet of projects for the 1002 area to help in discussions you may have about potential funding. This spreadsheet will continue to evolve as more information becomes available and discussions occur but please let Wendy or myself know if you have questions or would like to follow up about any particular theme or item in this list.

Sincerely,  
Paul

--

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

**From:** [Wendy Loya](#)  
**To:** [Cribley, Bud](#)  
**Subject:** Re: Good morning  
**Date:** Thursday, March 15, 2018 8:22:10 AM

---

Good morning, how about 1pm ET?

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 15, 2018, at 05:57, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Wendy,

When's a good time for you to talk this morning (your morning I'm assuming)? The only thing I have on my calendar today is at 3:00 pm (Eastern Time).

Bud

On Wed, Mar 14, 2018 at 12:14 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

I have a meeting at 330ET that I need to keep in prep for a meeting later in the afternoon. Should be done with that by 430pm your time...what about first thing Thursday?

---

**From:** Bud Cribley [mailto:[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 8:10 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Good morning

Your back!

I'm in meetings until 3:30 this afternoon. Are you available around 3:30?

**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 14, 2018, at 11:53 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Bud,

I would be glad to talk with you. We could talk at 10amAK/2pm ET if you are free? I do have some updates from our conversation with BLM/Nicole yesterday. If that time won't work, you could join our 1pm internal call on the 1002 area.

Thanks,

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

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**From:** Cribley, Bud [mailto:[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 7:02 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Good morning

Do you have time for a catch up call?

Insuring minds want to know what's happening in Alaska.

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)**

--

**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)**

**From:** [John Pearce](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Nicole Hayes](#)  
**Subject:** Re: Cancelling Friday BLM-USGS-FWS Science Coordination call for 1002  
**Date:** Thursday, March 15, 2018 12:55:06 PM

---

Thanks Wendy. No other topics from me so canceling is fine.

John

On Mar 15, 2018, at 11:02 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi John,  
Yesterday I went over the FWS high priority information needs list with BLM and FWS AK leadership, and Nicole and Chris Zimmerman were on the phone. I don't think we have anything more to report, and we are waiting until next week to know if the EIS writing might be contracted out or done by regional staff. Unless you have any topics, I think we can cancel for tomorrow.

Thanks,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Doug Damberg](#); [Stephen Arthur](#); [Steve Berendzen](#)  
**Cc:** [Paul Leonard](#); [John Trawicki](#)  
**Subject:** RE: Arctic Refuge 1002 Area Assessments Table (Updated)  
**Date:** Thursday, March 15, 2018 1:18:35 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table DRAFT 03151818.xlsx](#)

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Hi all, in response to Doug's email below....

The attached file with today's date as the version is printer ready for 8.5 x 14 or can be reduced to print on 8.5 x 11 in your printer settings. It is 53 pages with only one row on some pages, so it might be best to use your computer or double sided.

We will be making continual updates details in this document, FYI, so we will establish a location for keeping the file updated. If you want to make edits or corrections, please use tracked changes and send the sheet to Paul and I.

Wendy

**From:** Damberg, Doug [mailto:[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)]  
**Sent:** Thursday, March 15, 2018 11:05 AM  
**To:** Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Subject:** Re: Arctic Refuge 1002 Area Assessments Table (Updated)

Paul Wendy John - do any of you have a version of this spreadsheet that is "printer ready" i.e. so I don't have to adjust margins, etc to read it? If not, I will work on it after my next mtg.  
Thx,

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 14, 2018 at 4:18 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hello all,

Following up on our call today -- I wanted to pass along the updated spreadsheet of projects for the 1002 area to help in discussions you may have about potential funding. This spreadsheet will continue to evolve as more information becomes available and discussions occur but please let Wendy or myself know if you have questions or would like to follow up about any particular theme or item in this list.

Sincerely,  
Paul

--

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

**From:** [Burkart, Greta](#)  
**To:** [Arthur, Stephen](#)  
**Cc:** [Christopher Latty](#); [Janet Jorgenson](#); [Paul Leonard](#); [John Trawicki](#); [Joanna Fox](#); [Steve Berendzen](#); [Wendy Loya](#); [Randy Brown](#)  
**Subject:** Re: Beaufort Sea and North Slope Foothills Call for New Information: Deadline COB April 9  
**Date:** Thursday, March 15, 2018 1:38:12 PM  
**Attachments:** [Proposed foothills leasing area.JPG](#)

---

Hi Steve,

Thank you for sending this call for information. We have been so caught up with what is proposed in the boundaries of the Refuge, I had not realized that there are large impending threats adjacent to the Refuge. I just read through the Best Interest Finding and proposed North Slope foothills leasing sales document

([http://dog.dnr.alaska.gov/Documents/Leasing/BestInterestFindings/FBIF\\_TOTAL\\_DOCUMENT\\_FINAL\\_5-26-2011.pdf](http://dog.dnr.alaska.gov/Documents/Leasing/BestInterestFindings/FBIF_TOTAL_DOCUMENT_FINAL_5-26-2011.pdf)). The attached map from the document shows that the proposed lease area is adjacent to the Refuge boundary to the west of the Canning River. It includes a linear road-like extension to the upper Staines just across the river from the mid-Canning strip. This is the same location considered in the boundary law suit and where someone spent hundreds of thousands of dollars to acquire World View imagery.

The proposed leasing areas include the most productive fish overwintering and spawning habitats in the Refuge (e.g. Ivishak, Echooka, Lupine, Accomplishment Creek). Pumping from unconfined alluvial aquifers or groundwater aquifers in this region would likely have a huge and devastating impact to habitats supporting the highest concentrations of Dolly Varden on the North Slope. I think we need to look at this document more closely and think about what monitoring efforts may be necessary in this area in addition to recommending work in the 1002 area.

I also want to say that the information in this document regarding the impacts to fish during vibrosis associated with seismic surveys suggests that identifying overwintering habitat prior to seismic activity is crucial so that we can put measures/set backs in place to reduce impacts to fish. Surveys for sensitive fish species have only been conducted on 22 lakes in the Refuge.

Thanks again,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Mon, Mar 12, 2018 at 2:26 PM, Arthur, Stephen <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)> wrote:  
| See below request for new information relating to Beaufort Sea and North Slope Foothills  
| oil and gas lease sales by the state of Alaska. This is not land within the Refuge. I don't

expect we have any "new" information to add, except possibly relating to eiders on coastal islands? But let me know if there is other information we should report.

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: **fair arctic refuge, FW7** <[arctic\\_refuge@fws.gov](mailto:arctic_refuge@fws.gov)>  
Date: Thu, Mar 8, 2018 at 9:42 AM  
Subject: Fwd: Beaufort Sea and North Slope Foothills Call for New Information  
To: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>

FYI

Arctic National Wildlife Refuge  
Fairbanks, Alaska  
<http://arctic.fws.gov/>

Follow us on Facebook!  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

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

From: **Schick, Jonathan S (DNR)** <[jonathan.schick@alaska.gov](mailto:jonathan.schick@alaska.gov)>  
Date: Thu, Mar 8, 2018 at 8:03 AM  
Subject: Beaufort Sea and North Slope Foothills Call for New Information  
To: "dogbif (DNR sponsored)" <[DOG.BIF@alaska.gov](mailto:DOG.BIF@alaska.gov)>

Good morning,

The State of Alaska, Department of Natural Resources, Division of Oil and Gas (DO&G), will offer all available state acreage in the Beaufort Sea Areawide and North Slope Foothills Areawide oil and gas lease sales areas, tentatively scheduled for the second half of 2018.

DO&G requests substantial new information that has become available over the past year concerning these areas. Based on the information received, DO&G will either issue supplements to the findings or decisions of no substantial new information for these lease sales (AS 38.05.035(e)(6)(F)).

The most recent Beaufort Sea Areawide final best interest finding was issued in 2009. The latest supplement to the Beaufort Sea best interest finding was issued July 14, 2011. The most recent North Slope Foothills final best interest finding was issued in 2011, and no supplement has been issued. The findings and supplements are located at:

<http://dog.dnr.alaska.gov/Services/BIFAndLeaseSale>

DO&G generally considers “substantial new” information to be published research, studies, or data directly relevant to the matters listed in AS 38.05.035(g) that has become publicly available over the last year.

How to Submit Information to DO&G:

Please refer to the Call for New Information Document posted online at

<https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=188999>, for more information and maps.

Please send substantial new information to:

Best Interest Findings

Alaska Department of Natural Resources

Division of Oil and Gas

[550 W. 7<sup>th</sup> Ave.](#), Suite 1100

Anchorage, AK 99501

Or by email: [dog.bif@alaska.gov](mailto:dog.bif@alaska.gov)

**Information must be received by 5:00 pm April 9, 2018.**

The State of Alaska, Department of Natural Resources, complies with Title II of the Americans with Disabilities Act of 1990. This publication will be made available in alternative formats upon request. If you are a person with a disability who needs a special accommodation to participate in this process, please contact the Division of Oil & Gas at 907-269-8800 no later than March 27, 2018, to ensure that any necessary accommodations can be provided.

Thank you,

Jonathan

**Jonathan S. Schick**

Natural Resource Specialist

Alaska Department of Natural Resources

Division of Oil and Gas

907.269.8776

**From:** [Medeiros, Andrea](#)  
**To:** [Wendy Loya](#)  
**Subject:** Development of talking points/messages for 1002  
**Date:** Thursday, March 15, 2018 1:49:32 PM  
**Attachments:** [Facebook Logo for Email Signature Block.png](#)

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Hi Wendy,

Soch just stopped by to let me know we need to prepare for the EIS scoping meetings. How about you and I chat to discuss what we need to do and how we should do it.

Sound good as a first step?

---

Andrea Medeiros  
U.S. Fish and Wildlife Service,  
Alaska Region, External Affairs **tEAm**  
Public Affairs Specialist  
(907) 786-3695  
Mobile: (907) 227-4788

Connect with us:



**From:** [Wendy Loya](mailto:Wendy_Loya@fws.gov)  
**To:** [Diane Granfors](mailto:Diane_Granfors@fws.gov)  
**Subject:** FW: Arctic Refuge 1002 Area Assessments Table (Updated)  
**Date:** Thursday, March 15, 2018 2:35:33 PM  
**Attachments:** [1002 Arctic Refuge Resource Assessment Table DRAFT 03151818.xlsx](#)

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**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Thursday, March 15, 2018 11:19 AM  
**To:** Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>; Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>; Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>  
**Cc:** Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>; John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Subject:** RE: Arctic Refuge 1002 Area Assessments Table (Updated)

Hi all, in response to Doug's email below....

The attached file with today's date as the version is printer ready for 8.5 x 14 or can be reduced to print on 8/5 x 11 in your printer settings. It is 53 pages with only one row on some pages, so it might be best to use your computer or double sided.

We will be making continual updates details in this document, FYI, so we will establish a location for keeping the file updated. If you want to make edits or corrections, please use tracked changes and send the sheet to Paul and I.

Wendy

**From:** Damberg, Doug [mailto:[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)]  
**Sent:** Thursday, March 15, 2018 11:05 AM  
**To:** Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>; Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>  
**Subject:** Re: Arctic Refuge 1002 Area Assessments Table (Updated)

Paul Wendy John - do any of you have a version of this spreadsheet that is "printer ready" i.e. so I don't have to adjust margins, etc to read it? If not, I will work on it after my next mtg.  
Thx,

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 14, 2018 at 4:18 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Hello all,

Following up on our call today -- I wanted to pass along the updated spreadsheet of projects

for the 1002 area to help in discussions you may have about potential funding. This spreadsheet will continue to evolve as more information becomes available and discussions occur but please let Wendy or myself know if you have questions or would like to follow up about any particular theme or item in this list.

Sincerely,  
Paul

--

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

**From:** [Granfors, Diane](#)  
**To:** [Wendy Loya](#); [John Trawicki](#); [Paul Leonard](#)  
**Subject:** EFN for Arctic  
**Date:** Thursday, March 15, 2018 3:11:35 PM  
**Attachments:** [EFN for Arctic.xlsx](#)

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-----  
Diane Granfors, PhD  
Alaska Region Inventory and Monitoring Coordinator  
National Wildlife Refuge System  
U.S. Fish and Wildlife Service  
1011 East Tudor Road, MS 235  
Anchorage, AK 99503  
[diane\\_granfors@fws.gov](mailto:diane_granfors@fws.gov)  
907-786-3429

*Collaborative ecosystem science to inform National Wildlife Refuge System conservation decisions in Alaska.*

**From:** [Kahn, Lynnda](#)  
**To:** [Wendy Loya](#)  
**Subject:** Examples  
**Date:** Thursday, March 15, 2018 5:51:58 PM  
**Attachments:** [Permit 2016-SEIS-SSimonds-5270\(Signed\).pdf](#)  
[CIRI Seismic SUP-2016-SEIS-SSimonds-5270 Special Conditions.docx](#)  
[Tyonek LNO.pdf](#)  
[CIRI Shadura EAS FONSI Memo Jan 2016.pdf](#)  
[CIRI Shadura FONSI Jan 2016.pdf](#)  
[Signed FONSI & EAS - SAExploration.pdf](#)

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Here is some information on a project that was done for CIRI, outside of any federal lease area. FYI - BLM advises that geophysical operations can be conducted on most federal lands by bonded geophysical operators, regardless of whether the federal lands are leased or by whom they are leased.

*Lynnda*

*Lynnda Kahn | Fish & Wildlife Biologist*

*Kenai National Wildlife Refuge  
P.O. Box 2139 | Soldotna, AK 99669  
(907) 260-2818*







**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#)  
**Subject:** Bio request - please call me first.  
**Date:** Friday, March 16, 2018 9:38:52 AM

---

**Please provide a response BY NOON March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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

**From:** [Lanctot, Richard](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** on leave Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 11:08:35 AM

---

I will check e-mail periodically.

--

\*\*\*\*\*

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

**From:** [Wendy Loya](#)  
**To:** [Steve Berendzen](#); [Stephen Arthur](#); [Joanna Fox](#); [Doug Damberg](#); [Paul Leonard](#); [Diane Granfors](#); [John Trawicki](#)  
**Subject:** FW: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Friday, March 16, 2018 12:39:30 PM

---

Hi all,

To follow up on yesterday's call regarding allocation of Arctic Refuge funding towards high priority 1002 area needs, I wanted to forward this email from Chris Latty that breaks down the request for \$175K for avian research. I am working to include more details in the table today, but this one is multi-pronged and may be easier to consider via the info provided from Chris below.

I hope to have the latest, greatest table with some additional detail available by COB today. If you have notes, such as items that were requested for the Subsistence Tribal Grants, feel free to send me that row in an email or the text with the row number(s) it is associated with.

Thank you,  
TGIF 😊  
Wendy

**From:** Latty, Christopher [mailto:[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)]  
**Sent:** Wednesday, March 14, 2018 11:41 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table

Hi Wendy - here is quick list for the breeding bird surveys and average 3 year budgets.

Cheers

Chris

- Conduct area-wide aerial surveys of breeding waterfowl, loons, and larids to provide contemporary abundance and distribution.
  - Expansion of existing Mig Bird ACP survey.
  - Average annual budget first 3 years: 25K
- Conduct ground-based surveys of breeding waterfowl and gulls on barrier islands to provide contemporary abundance and distribution.
  - Average annual budget first 3 years: 40K

- Conduct intensive ground-based surveys of tundra breeding birds (including waterfowl, shorebirds, loons, gulls, ptarmigan, and passerines) at several sites across a variety of habitats and acquire/create high-resolution maps of potential habitat quality indices (e.g., vegetation, elevation, snow, microclimate). Ecological mapping data can then be used to define fine scale, species-specific habitat.
  - Average annual budget first 3 years: 65K
  
- Conduct aerial- or ground-based surveys of the Brooks Range, foothills, and Coastal Plain rivers for breeding cliff-nesting raptors to provide contemporary abundance and distribution.
  - Average annual budget first 3 years: 10K
- **Conduct area-wide ground-based surveys of breeding shorebirds and landbirds to provide contemporary abundance and distribution**
  - Conduct Program for Regional and International Shorebird Monitoring (PRISM) surveys, which have been conducted across the Arctic to monitor these species.
  - Average annual budget first 3 years: 35K

**From:** [Hamilton, Charles](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Patrick Lemons](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 12:45:06 PM  
**Attachments:** [Arctic 1002 Expertise CS Hamilton.docx](#)

---

Hi Wendy,

Happy to help, attached per your request.

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

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3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Regards,

Charles S. Hamilton  
Special Assistant  
Marine Mammals Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Rd., MS-341  
Anchorage, AK 99503  
Voice: (907) 786-3804  
FAX: (907) 786 - 3816

**From:** [Wendy Loya](#)  
**To:** [Charles Hamilton](#)  
**Subject:** RE: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 12:55:00 PM

---

Thanks Charlie,

You win for first in 😊

Have a great weekend.  
Wendy

**From:** Hamilton, Charles [mailto:[charles\\_hamilton@fws.gov](mailto:charles_hamilton@fws.gov)]  
**Sent:** Friday, March 16, 2018 10:44 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Cc:** Patrick Lemons <[Patrick\\_Lemons@fws.gov](mailto:Patrick_Lemons@fws.gov)>  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info

Hi Wendy,

Happy to help, attached per your request.

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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4. Area of Expertise

5. Education: *any post-secondary degrees*

6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Regards,

Charles S. Hamilton  
Special Assistant  
Marine Mammals Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Rd., MS-341  
Anchorage, AK 99503  
Voice: (907) 786-3804  
FAX: (907) 786 - 3816

**From:** [Swem, Ted](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 1:45:38 PM  
**Attachments:** [swem EIS reveiw team.docx](#)

---

homework attached

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Matz, Angela](#)  
**To:** [Wendy Loya](#); [Paul Leonard](#)  
**Subject:** clarification on Air Quality tasks  
**Date:** Friday, March 16, 2018 1:58:56 PM  
**Attachments:** [Air Quality tasks V4 20180316.xlsx](#)

---

Hi Paul and Wendy,

Sorry this is a few days late. The Air Quality team provided clarification and additional details, so please use the attached Air Quality Tasks v4 spreadsheet for this exercise.

Thanks!

Angela

--

*Angela Matz, Ph.D.*  
*U.S. Fish and Wildlife Service*  
*4700 BLM Road Anchorage, AK 99507-2546*  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Brown, Randy](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Sarah Conn](#); [Fox, Jimmy](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 3:08:15 PM  
**Attachments:** [SubjectMatterExpert\\_Fisheries\\_Randy\\_J\\_Brown\\_USFWS.docx](#)

---

Hi Wendy,  
Attached is the subject area expert profile you requested. I appreciate your keeping me posted on developments in this regard.  
Later,  
Randy

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

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

Phone: (907) 456-0295

E-mail: <[randy\\_j\\_brown@fws.gov](mailto:randy_j_brown@fws.gov)>

**From:** [Burkart, Greta](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 3:16:49 PM  
**Attachments:** [GretaBurkartBio.docx](#)

---

Hi Wendy,

My bio is below and attached. Let me know if you have any questions.

Thanks,

Greta

1. Name: Greta Burkart
2. Agency: U.S. Fish and Wildlife Service (USFWS), Arctic National Wildlife Refuge (NWR)
3. Job Title: Aquatic Ecologist
4. Area of Expertise: aquatic food webs, water quality and quantity, developing and implementing statistically valid long-term monitoring programs.
5. Education: PhD Aquatic Ecology 2007 Department of Watershed Sciences, College of Natural Resources, Utah State University, Logan, UT 84322, GPA: 3.8; MS Biological Sciences 1998 Wright State University, Dayton, OH, GPA: 4.0; BS and BA Zoology and BFA Photography 1996 Miami University, Oxford, OH, GPA: 3.4
6. Years and type of experience: She has eighteen years of experience working in the Arctic Alaska as an aquatic ecologist for her dissertation (2000-2006), the Arctic NWR (2011-present), the NPS (2006-2009) and the University of Alaska (2010-2011). She has led development of a landscape-scale long-term inventory and monitoring program and studies on landscape-scale patterns in the distribution of fish and other aquatic organisms, and hydrology. She has authored or contributed to the following publications:

US DOI, USFWS. Environmental Assessment for Proposed Study of Hydrological, Glacial and Meteorological Factors, Arctic National Wildlife Refuge, Alaska.

US DOI, USFWS. Arctic NWR Revised Comprehensive Conservation Plan and Wild and Scenic River Review. January 2015.

Luecke, C, AE Gibling, ND Bettez, GA Burkart, BC Crump, MA Evans, GG Gettel, S MacIntyre, WJ O'Brien, P.A. Rublee, G.W. Kling. 2014. The response of lakes near the Arctic LTER to environmental change. Pages 238-286 in Hobbie, J, and GW Kling, *Alaska's Changing Arctic, Ecological Consequences for Tundra, Streams, and Lakes*. Oxford University Press. 2014. 331 pages

Burkart, GA, C Luecke, SD Miller and T Simmons. 2009. Monitoring protocol for large lake communities and ecosystems in the Arctic Network. Report for the NPS. 422 pages

Burkart, GA 2007. *Energy Flow in Arctic Lake Food Webs: The Roles of Glacial History, Fish Predators and Benthic-Pelagic Linkages*. Dissertation. Utah State University, 144 p

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519

fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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:** [Jorgenson, Janet](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 4:17:00 PM  
**Attachments:** [JJorgenson-shortbio2018.doc](#)

---

Attached is my info. I will be on vacation all next week. Please note that I am probably retiring at the end of April, so I don't expect to be put on an EIS team. My plan is to do the field work planned for this summer as a volunteer, not as an employee. Talk to you after next week! Janet

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Janet C. Jorgenson

Botanist

Arctic National Wildlife Refuge

101 12th Ave, Rm 236

Fairbanks, Alaska 99701

907-456-0216

**From:** [Wilson, Ryan](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 4:25:38 PM  
**Attachments:** [Wilson Bio.docx](#)

---

Sorry. You're right. Attached is the correct version.  
Ryan

On Fri, Mar 16, 2018 at 1:58 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Mr. Wilson,

Your response is too long. Please reduce the number of publications to one page or less. I believe you have sent me the long version of your efforts.

Thank you.

Dr. Loya

**From:** Wilson, Ryan [mailto:[ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)]  
**Sent:** Friday, March 16, 2018 1:45 PM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** James Wilder <[james\\_wilder@fws.gov](mailto:james_wilder@fws.gov)>; Patrick Lemons <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)>  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info

Dear Dr. Loya,

Attached you will find my responses to your request for information about my experience and expertise.

Please let me know if you need any additional information.

Ryan

On Fri, Mar 16, 2018 at 9:38 AM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area “Coastal Plain EIS.” BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

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4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Ryan Wilson, Ph.D., Certified Wildlife Biologist ®

Marine Mammals Management, Polar Bears

U.S. Fish and Wildlife Service

[1011 E. Tudor Rd.](#), MS341

Anchorage, AK 99503

Phone: (907) 786-3830

Email: [ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)

Fax: (907) 786-3816

--

Ryan Wilson, Ph.D., Certified Wildlife Biologist ®

Marine Mammals Management, Polar Bears

U.S. Fish and Wildlife Service

1011 E. Tudor Rd., MS341

Anchorage, AK 99503

Phone: (907) 786-3830

Email: [ryan\\_r\\_wilson@fws.gov](mailto:ryan_r_wilson@fws.gov)

Fax: (907) 786-3816

**From:** [Butteri, Peter](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Kent Slaughter](#); [Doug Alexander](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 16, 2018 6:34:17 PM  
**Attachments:** [Coastal Plain EIS Bio PJB 20180316.docx](#)

---

My bio.

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

(w) 907-356-5874

(c) 907 350 4782

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

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*

0000007575

6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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:** [memiller@blm.gov](mailto:memiller@blm.gov); [lgleason@blm.gov](mailto:lgleason@blm.gov); [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
**Subject:** FWS slides for NSSI Annual Studies meeting  
**Date:** Sunday, March 18, 2018 7:20:21 PM  
**Attachments:** [FWS NSSI ANSSR 032018 v7.pptx](#)  
[FWS 2018 North Slope Research DOI 1002 Data Call and NSSI Annual Studies 031518.xlsx](#)

---

Hi Mark, Lisa and Jess,

Attached are my slides for Tuesday. I am highlighting three studies that I think may be of interest to the broadest audience, then the final list has the full list of studies. I am also attaching the spreadsheet with all the information you requested for all the studies (plus some additional information that was requested by DOI about the same time), assuming that may be part of the catalog/studies database.

See you Tuesday,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Martin, John](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 19, 2018 10:01:08 AM

---

Thanks!

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 Mar 19, 2018, at 06:54, Martin, John <[john\\_w\\_martin@fws.gov](mailto:john_w_martin@fws.gov)> wrote:

Wendy

Per your request

1. Name John W Martin
2. Agency US Fish and Wildlife Service
3. Job Title Regional Refuge Ecologist and Landscape Conservation Planner
4. Area of Expertise

> project/landscape conservation development, prioritization, implementation, administration

> predator ecology and management

> NEPA compliance - environmental impact evaluation (anthropomorphic or natural stressors and drivers) and species-habitat relationships, including mitigation evaluation;

> cumulative effects analyses

5. Education *any post-secondary degrees*

*Certified Wildlife Biologist (No. 19201), conferred by The Wildlife Society.*

Ph.D. Conservation Biology (Ornithology): Utah State University, Logan; *candidacy - terminated upon loss of funding.*

M.S. Entomology (Insect Ecology): University of Nebraska, Lincoln - *in progress.*

M.S. Zoology (Wildlife and Range Resources): Brigham Young University, Provo, UT.

B.S. Zoology/Outdoor Recreation: Weber State University, Ogden,

UT.

6. Years and type of experience Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.

> 34 years professional, full-time employment with DOD, USDA or DOI

> Environmental Coordinator 1993-2002 responsible for 100-120 CXs, 12-24 EAs, and 1-2 EISs annually

> author, Wyoming Landscape Conservation Initiative grant award-study design: \$1.75 million 2008

> author, Habitat Management Guidelines US Bureau of Reclamation: 1 million acres, \$33 million

> author/coauthor/presenter, numerous monographs or peer-reviewed scientific publications, including interagency *U.S. Department of the Interior Arctic cumulative impacts workshop: final report* (2017)

> participant in multiple interagency mitigation teams for oil and gas development projects

> principle biologist for Southern Nevada Water Authority (SNWA) Regional Water Resources Program (2 EISs, 2 EAs) covering 275 x 120 mi<sup>2</sup> and 375 TES species

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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0000007579

template below. Limit this to no more than one-half page.

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Carr, Adam](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Beyersdorf, Geoff](#); [Eric Yeager](#); [Haddix, John](#); [Miriam \(Nicole\) Hayes](#); [Tami Busch](#)  
**Subject:** Re: Request for BLM Assistance with 1002 area snow survey  
**Date:** Monday, March 19, 2018 10:16:20 AM

---

Thank you Wendy,

We are glad to provide the support.

If your travel and budget folks could work directly with Tami Busch our district office staff budget person I would greatly appreciate it. She can be reached @ (907) 474-2221 and via email (her email address is above).

Regards,

Adam

On Fri, Mar 16, 2018 at 7:45 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Adam,

We are grateful for your willingness to make Eric available for this field survey. We believe the information he will help collect is important in preparing to facilitate seismic exploration in the Arctic National Wildlife Refuge Coastal Plain.

I spoke with our travel guru today, and she indicated we would be able to reimburse BLM for travel expenses for Eric after they are paid to him, using an interagency travel form. Our staff can work with Eric or your travel or budget specialist to complete that transaction. If you are seeking compensation for his time, we will delve into an interagency agreement also (or instead if allowed/better).

Eric and Frank can keep us informed on the anticipated travel costs, which we have heard an estimate of approximately \$8,000.

Thank you all!  
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 Mar 16, 2018, at 16:45, Carr, Adam <[acarr@blm.gov](mailto:acarr@blm.gov)> wrote:

Good Afternoon Wendy,

My name is Adam Carr and I am the Field Manager for the BLM Eastern

Interior Field Office. Eric Yeager is a member of my staff and will be able to support this effort. Based on a conversation with Eric, it is my understanding that Colter Franz has helped with some logistical support and not field data collection in the past and could not provide the same level of support as Eric.

Based on the current state of our budget if there is way to cover Eric's labor for this support a it would be greatly appreciated.

Please feel free to give me a call next week if we need to have additional discussions. I will be in the office on Monday and Friday and in travel status Tuesday - Thursday. My cell # is (907) 251-7195.

Regards,

Adam

--

Adam Carr  
Field Manager

Bureau of Land Management  
Eastern Interior Field Office  
[222 University Ave.](#)  
[Fairbanks, AK 99709](#)  
[\(907\) 474-2342](#)

**"If you have integrity, nothing else matters. If you don't have integrity, nothing else matters."**  
Alan Simpson

--

Adam Carr  
Field Manager

Bureau of Land Management  
Eastern Interior Field Office  
222 University Ave.  
Fairbanks, AK 99709  
(907) 474-2342

**"If you have integrity, nothing else matters. If you don't have integrity, nothing else matters."**  
Alan Simpson

**From:** [Wendy Loya](#)  
**To:** [Miller, Mark](#)  
**Subject:** Re: FWS slides for NSSI Annual Studies meeting  
**Date:** Monday, March 19, 2018 10:31:25 AM

---

At least Paul. I have it in the regional notes and sent to 1002 team, but lots going on so think people will dial in for topics of interest.

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 Mar 19, 2018, at 08:19, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

This is perfect - thanks.

Do you expect many FWS staff to attend in person or via teleconference line?

---

**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*

On Sun, Mar 18, 2018 at 8:02 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

If you want me to do something different, let me know!

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:** Mark Miller [mailto:[memiller@blm.gov](mailto:memiller@blm.gov)]

**Sent:** Sunday, March 18, 2018 6:59 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Cc:** [lgleason@blm.gov](mailto:lgleason@blm.gov); [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
**Subject:** Re: FWS slides for NSSI Annual Studies meeting

Thank you.....

Mark E. Miller, PhD

Deputy Director

North Slope Science Initiative

[memiller@blm.gov](mailto:memiller@blm.gov)

On Mar 18, 2018, at 17:20, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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See you Tuesday,

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)

<FWS NSSI\_ANSSR\_032018\_v7.pptx>

<FWS 2018 North Slope Research DOI 1002 Data Call and NSSI  
Annual Studies 031518.xlsx>

**From:** [McCaffery, Brian](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 19, 2018 11:04:08 AM  
**Attachments:** [McCaffery bio.docx](#)

---

Dear Wendy,

Here you go. The bio is half-a-page, selected pubs are another half-page. Feel free to trim as needed for your purposes.

Cheers,

Brian

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

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6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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 J. McCaffery**  
**U. S. Fish and Wildlife Service**  
Natural Resources Planner  
National Wildlife Refuge System - Region 7  
Division of Natural Resources  
Branch of Conservation Planning and Policy

Phone: (907) 330-7514

e-mail: [brian\\_mccaffery@fws.gov](mailto:brian_mccaffery@fws.gov)

"Do something that scares the living hell outta your boss!" -- Dan Ashe, former Director, USFWS

**From:** [Urban, Frank](#)  
**To:** [Pearce, John](#); [Leonard, Paul](#); [Wendy Loya](#)  
**Cc:** [gary.clow@Colorado.EDU](mailto:gary.clow@Colorado.EDU)  
**Subject:** Fwd: Request for BLM Assistance with 1002 area snow survey  
**Date:** Monday, March 19, 2018 11:05:15 AM

---

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

**From:** **Urban, Frank** <[frurban@usgs.gov](mailto:frurban@usgs.gov)>  
**Date:** Mon, Mar 19, 2018 at 11:02 AM  
**Subject:** Re: Request for BLM Assistance with 1002 area snow survey  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** "Carr, Adam" <[acarr@blm.gov](mailto:acarr@blm.gov)>, "Beyersdorf, Geoff" <[gbeyersd@blm.gov](mailto:gbeyersd@blm.gov)>, Eric Yeager <[eyeager@blm.gov](mailto:eyeager@blm.gov)>, "Haddix, John" <[jahaddix@blm.gov](mailto:jahaddix@blm.gov)>, "Miriam (Nicole) Hayes" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>

Adam and Geoff,

Many thanks for working with us so that Eric can assist in this effort. I will start working directly with Eric to make all this happen. Eric and I discussed the needs and general schedule/plan/logistics this weekend. Eric will be in touch with FWS on the IA form needs and I will do the same. Time is short so there may be some time sensitive emails and planning this week.

Thanks again everyone for helping to make this happen.

Frank Urban  
720-838-4133

On Fri, Mar 16, 2018 at 9:45 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Adam,

We are grateful for your willingness to make Eric available for this field survey. We believe the information he will help collect is important in preparing to facilitate seismic exploration in the Arctic National Wildlife Refuge Coastal Plain.

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Thank you all!  
Wendy

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[907.786.3532](tel:907.786.3532) (office)  
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Please feel free to give me a call next week if we need to have additional discussions. I will be in the office on Monday and Friday and in travel status Tuesday - Thursday. My cell # is (907) 251-7195.

Regards,

Adam

--

Adam Carr  
Field Manager

Bureau of Land Management  
Eastern Interior Field Office  
[222 University Ave.](#)  
[Fairbanks, AK 99709](#)  
[\(907\) 474-2342](tel:(907)474-2342)

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Alan Simpson

--

Frank Urban  
U.S. Geological Survey

0000007589

MS 980, Box 25046  
Denver, CO 80225  
303-236-4790

--

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

**From:** [Christopher Arp](#)  
**To:** [Matthew Whitman](#); [Wendy Loya](#); [Paul Leonard](#); [Andrew Parsekian](#); [Vladimir Alexeev](#); [Flamme, Melanie](#); [Stieglitz, Marc](#); [Jeffries, Martin O. EOP/OSTP](#)  
**Subject:** new paper on long-term lake ice dynamics in Arctic Alaska  
**Date:** Monday, March 19, 2018 11:35:26 AM  
**Attachments:** [Engram-et al. 2018 RSE 25yrIceRegimeAnalysis.pdf](#)

---

Dear Colleague,

Please find our new paper (attached) that advances SAR lake-ice analysis techniques and understanding of changes in arctic landscapes, which we think you will find of interest. Link to article is below:

<https://authors.elsevier.com/sd/article/S0034425718300294>

Best wishes,  
Chris

-----  
Christopher D. Arp  
Associate Research Professor  
Water and Environmental Research Center  
Institute of Northern Engineering  
University of Alaska Fairbanks  
346 Engineering Learning and Innovation Facility  
P.O. Box 755910  
Fairbanks, AK 99775-5910  
Phone: 907-474-2783  
Email: [cdarp@alaska.edu](mailto:cdarp@alaska.edu)  
<http://ine.uaf.edu/werc/people/chris-arp/>  
<https://scholar.google.com/citations?user=y1AFG-QAAAAJ&hl=en>  
-----

**From:** [Sarena Selbo](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)  
**Cc:** [karen\\_a\\_murphy@fws.gov](mailto:karen_a_murphy@fws.gov)  
**Subject:** R7 Arctic LCC Pivot January 2018.docx  
**Date:** Monday, March 19, 2018 11:49:21 AM  
**Attachments:** [Untitled attachment\\_05374.htm](#)  
[R7 Arctic LCC Pivot January 2018.docx](#)

---

Seth is asking if we want to update. Wendy, perhaps less about what we plan to do and more about what we ARE or have already done? Also make it clear that this pivot was a regional priority. Thanks

**From:** [Johnson, Carl](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 19, 2018 12:54:13 PM  
**Attachments:** [CarlJohnson-eis-bio.docx](#)

---

Wendy,

My bio is attached. Both Robbin LaVine and Eva Patton are out sick today, so they will not be able to get this to you today.

Also, I noted that in a separate email you identify us as Land/Realty Specialists. I think it would be more appropriate to identify us as Cultural/Subsistence Specialists.

Carl

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
1011 E. Tudor Road,  
Anchorage, AK 99503  
(907) 786-3584

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Leonard, Paul](#)  
**To:** [E. Jamie Trammell](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: 1002 Mapping  
**Date:** Monday, March 19, 2018 2:11:51 PM

---

Hi Jamie,

Good to hear from you.

I agree that FWS staff could benefit from this type of effort.

I am currently putting together some refuge data (focusing on 1002) for preliminary analyses. Although the purpose of this mapping effort is fairly focused, I presume it will spawn a larger and more detailed effort soon.

Happy to discuss via telephone later this week if you'd like (Wed or Thursday afternoon would be best)

Cheers,  
Paul

On Mon, Mar 19, 2018 at 11:57 AM, E. Jamie Trammell <[ejtrammell@alaska.edu](mailto:ejtrammell@alaska.edu)> wrote:

Hi Wendy and Paul,

Hope all is well up there! I'll actually be in FAI to lead the REA user training for BLM next week (our Spring Break). We're focusing on the North Slope and Central Yukon REAs, and I was hoping they would open it up to non-BLM folks, but alas, it never happened. However, given the recent news about 1002, I think it would be really relevant to increase FWS exposure to the REA-type of analyses.

So, just curious if either of you are involved, or plan to be involved, with any new mapping efforts of the 1002? If so, do you see any opportunity for new/updated/better REA-type analyses? Even though the landscape approach, as we knew it, is dead in DOI, I know a lot of managers are keen on putting their hands on some readily-available information, especially at broader scales.

Best,  
Jamie

--

-----

E. Jamie Trammell, Ph.D.

Affiliate Faculty

[Alaska Center for Conservation Science](#)

University of Alaska Anchorage

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Fischer, Julian](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 19, 2018 2:22:26 PM  
**Attachments:** [Subject Matter Expert.docx](#)

---

Hi Wendy,  
If more specifics are needed, let me know.  
Julian

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

Thank you!

Wendy

Dr. Wendy M. Loya,

0000007597

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

--

Julian B. Fischer  
Supervisory Wildlife Biologist  
Migratory Bird Management, Waterfowl  
U.S. Fish and Wildlife Service  
1011 East Tudor Road, Anchorage AK 99503  
Tel: 907-786-3644 office; 907-250-6462 mobile  
Fax. 907-786-3641  
Email: [julian\\_fischer@fws.gov](mailto:julian_fischer@fws.gov)

**From:** [Trawicki, John](#)  
**To:** [Wendy Loya](#)  
**Subject:** Fwd: Canceled event: FWS-BLM Weekly Check-in on Coastal Plain 1002 @ Tue Mar 20, 2018 2pm - 3pm (AKDT) (john\_trawicki@fws.gov)  
**Date:** Monday, March 19, 2018 4:41:53 PM  
**Attachments:** [invite.ics](#)

---

Hi Wendy

I expect to get questions such as: When is the NOI going out? What is the scope of work for the EIS contract? Have they gotten bids back and when will a contractor be selected? .....

john t

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

**From:** Miriam (Nicole) Hayes <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>  
**Date:** Mon, Mar 19, 2018 at 10:52 AM  
**Subject:** Canceled event: FWS-BLM Weekly Check-in on Coastal Plain 1002 @ Tue Mar 20, 2018 2pm - 3pm (AKDT) ([john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov))  
**To:** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)

This event has been canceled and removed from your calendar.

### FWS-BLM Weekly Check-in on Coastal Plain 1002

Please send any agenda topics to me by noon each Tuesday. We can have our first weekly check-in next week!

**When** Tue Mar 20, 2018 2pm – 3pm Alaska Time

**Where** [b5-CIP](#), participant passcode # [b5-CIP](#) ([map](#))

**Video call** [b5-CIP](#)

**Calendar** [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)

**Who**

- [mnhayes@blm.gov](mailto:mnhayes@blm.gov) - organizer
- [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- [tracy\\_fischbach@fws.gov](mailto:tracy_fischbach@fws.gov)
- [njones@blm.gov](mailto:njones@blm.gov)
- [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)
- [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)
- [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)
- [ssweet@blm.gov](mailto:ssweet@blm.gov)
- [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)
- [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)
- [mdraper@blm.gov](mailto:mdraper@blm.gov)

Invitation from [Google Calendar](#)

You are receiving this email at the account [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov) because you are subscribed for cancellations on calendar [john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

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

--

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

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

**From:** [Lor, Socheata](#)  
**To:** [Wendy Loya](#); [John Trawicki](#)  
**Subject:** Fwd: Notice of request from your staff: Bios for Arctic Refuge 1002 EIS  
**Date:** Monday, March 19, 2018 5:03:13 PM

---

[Wendy/John](#),

FYI. Sounds like we need to follow-up on Eva and Tom's message?

[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:** **Thomas Doolittle** <[thomas\\_doolittle@fws.gov](mailto:thomas_doolittle@fws.gov)>  
**Date:** Mon, Mar 19, 2018 at 12:47 PM  
**Subject:** Re: Notice of request from your staff: Bios for Arctic Refuge 1002 EIS  
**To:** Eva Patton <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)>, "Gene Peltola Jr." <[gene\\_peltola@fws.gov](mailto:gene_peltola@fws.gov)>, Jennifer Hardin <[jennifer\\_hardin@fws.gov](mailto:jennifer_hardin@fws.gov)>, George Pappas <[george\\_pappas@fws.gov](mailto:george_pappas@fws.gov)>, [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)  
**Cc:** Carl Johnson <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)>, Robbin Lavine <[robbin\\_lavine@fws.gov](mailto:robbin_lavine@fws.gov)>, Joshua Ream <[joshua\\_ream@fws.gov](mailto:joshua_ream@fws.gov)>

Good comments Eva, and recusal from your interactions...all things Coastal Plain EIS, considering FACA compliance is an issue with an affected Council. I also concur that our role is in the Social dimensions of an 810 process and that the lands/ realty slot is not the right place for our staff, or capitalizing on our staff's academic and professional disciplines. The 810 slot is where our staff should be. It is also great that Brian has been assigned to the 810 section. He can put the whole section together along with our staff and I would be confident this section would be well done.

Cheers, Tom

Sent from my iPhone

On Mar 19, 2018, at 11:41 AM, Patton, Eva <[eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)> wrote:

Hi Carl,

After some re-view and discussion with BLM and Gilbert Castlelliono on some

the developments in public process in the region and now seeing this proposed timeline I think the priority for my involvement would be to facilitate the North Slope RAC's involvement in any opportunity for them to review and comment on the Draft EIS for the Coastal Plain. I do not want there to be any perceived potential for conflict if I were involved as a SME for the FWS review of the EIS that would interfere with the Council having the opportunity to review and make their own comments and recommendations.

Also - Wendy has Robbin as a contact but my understanding is that Josh Ream was approved by Tom D. to be the Anthropology rep for OSM review of the Coastal Plain EIS.

If so can someone please follow up with Wendy to ensure she has the correct contact.

I see OSM staff are listed under the Lands/Reality Specialist section??

There is no SUBSISTENCE category?

I see Brian McCaffery is listed under ANILCA Sec. 810 . Perhaps a better fit for OSM staff also if there is no separate Subsistence section.

Not sure how much control Wendy has over the categories but it might be good to bring it to her / BLM's attention if it can be updated to reflect Subsistence.

Thank you

Eva

On Fri, Mar 16, 2018 at 12:44 PM, Thomas Doolittle  
<[thomas\\_doolittle@fws.gov](mailto:thomas_doolittle@fws.gov)> wrote:

FYI

Sent from my iPhone

Begin forwarded message:

**From:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Date:** March 16, 2018 at 9:06:01 AM AKDT  
**To:** Mary Colligan <[mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)>, Socheata Lor <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)>, Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Thomas Doolittle <[thomas\\_doolittle@fws.gov](mailto:thomas_doolittle@fws.gov)>, Eric Taylor <[eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)>, Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Cc:** Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, Karen Clark <[karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)>  
**Subject:** Notice of request from your staff: Bios for Arctic

## Refuge 1002 EIS

Dear FWS Colleagues,

Shortly I will be sending out a request for a ½ page Bio to those on your staff that have been identified as potential writers/or reviewers for the “Coastal Plain EIS” at the request of DOI leadership. Below are the staff that you all have identified. BLM Alaska anticipates that the NOI will go out next week ( Week of March 19<sup>th</sup>), which would start the 1 year clock for the EIS (which will meet the 300 page guidelines).

FWS staff selected by DOI to participate should be prepared to receive further information shortly thereafter about their roles and the timeline. There will be 2 months of scoping (approximately mid-March through mid-May) then preparation of the Draft EIS might continue through mid-September. This is all subject to change as we adapt to assist meeting the 1 year timeline. Although not given direction yet, I would guess that FWS will play a role in describing the affected environment.

As decisions are made by DOI on who is selected to be on the team, I will keep you updated; we will share a list of staff engaged publically when decisions are made. Staff identified from BLM also going through this process. Please contact me with any questions and I will do my best to answer them.

DRAFT list of potential FWS writers and/or reviewers for Coastal Plain EIS:

Job Title	FWS
Technical editor/writer	
International Liaison	Charlie Hamilton (Polar Bears)
Geologist/Petroleum Engineer	BLM
	BLM
	BLM
	FWS
Soil Scientist	Greta Burkhart

Botanist	Janet Jorgenson
Hydrologist	Greta Burkhart, Paul Leonard
Soil Scientist/Hydrologist	Janet Jorgenson
Archaeologist	Ed Declava (Likely need BLM or contractor)
Wildland Fire Specialist	Peter Butteri
Air Resource Specialist	Greta Burkhart
Physical Scientist	
Fish Biologist	Randy Brown
Wildlife Biologist (Birds)	Christopher Latty, Eric Taylor, Rick Lanctot, Jim Johnson, Steve Lewis, Michael Swaim, Julian Fischer, Ted Swem
Wildlife Biologist (Marine Mammals)	Ryan Wilson (Polar bears)
Wildlife Biologist (Terrestrial Mammals)	Steve Arthur
Lands/Realty Specialist	Hollis Twitchell; Eva Patton; Carl Johnson, Robbin LaVine
Economist	
Lands/Realty Specialist	Susan Lakomski
Transportation/VRM	
Recreation	Jennifer Reed
Public Health Scientist	
Hazardous Materials Specialist	Angela Matz
Wilderness Values	Roger Kaye
GIS/Mapping	
Cumulative Effects, Impact assessments	John Martin
ANILCA Section 810 Evaluation	Brian McCaffery

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)

--

Eva Patton  
Subsistence Council Coordinator

U.S. Fish & Wildlife Service  
Office of Subsistence Management  
[1011 East Tudor Road](#), MS 121  
Anchorage, AK 99503-6199  
Tel: (907) 786-3358 Fax: (907) 786-3898  
1-800-478-1456  
[email:eva\\_patton@fws.gov](mailto:eva_patton@fws.gov)

**From:** [Johnson, Carl](#)  
**To:** [Wendy Loya](#)  
**Subject:** Current 1002 Area EIS timeline  
**Date:** Monday, March 19, 2018 5:49:11 PM

---

Wendy,

At our meeting last week, John mentioned that the 22-month timeline for the 1002 Area EIS is out the window, and that it is on a 12-month track. Could you send me that timeline so we can be ready for it? Also, the anthropologist who will be serving on the interdisciplinary team for OSM is not Robbin La Vine but Joshua Ream.

Thanks!

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

Like us on [Facebook!](#)

**From:** [Lanctot, Richard](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 19, 2018 7:43:01 PM  
**Attachments:** [Lanctot\\_Short CV for 1002 effort\\_19march2018.docx](#)

---

Hopefully better late than never. Just back from 2 weeks so this got buried.

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 Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title

4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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:** [Trawicki, John](#)  
**To:** [Loya, Wendy](#); [Diane Granfors](#)  
**Cc:** [Steve Berendzen](#); [Joanna Fox](#); [Stephen Arthur](#); [Doug Damberg](#)  
**Subject:** Re: Link to Draft 1002 Resource Assessment Studies Tables  
**Date:** Tuesday, March 20, 2018 10:11:02 AM

---

On Fri, Mar 16, 2018 at 4:20 PM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Dear Refuges staff,

Paul and I have uploaded the 1002 recommended studies sheet to the ArcticLCC google drive for sharing (share settings: anyone with the link can comment) Once I get your feedback that this is accessible and you are able to download for your purposes, I will share the link with others.

You should be able to comment if you wish to add notes or suggest edits, then Paul or I will accept the comments. I don't anticipate the studies to change much in the next week, but we will add notes as we learn about what is being done by others or make progress so please check back in before major planning efforts.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

Office of Science Applications -Arctic Program is planning to fund the vegetation map and will try to move ahead with getting a scope of work that fits near term (exploration) needs.

Have a great weekend, and thanks for your help!  
Wendy

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

--

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

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

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** Fwd: Request for BLM Assistance with 1002 area snow survey  
**Date:** Tuesday, March 20, 2018 11:45:27 AM

---

I am not clear if we are paying for salary and travel or just travel, I can ask for clarification tomorrow

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)

Begin forwarded message:

**From:** "Carr, Adam" <[acarr@blm.gov](mailto:acarr@blm.gov)>  
**Date:** March 19, 2018 at 08:15:57 AKDT  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Cc:** "Beyersdorf, Geoff" <[gbeyersd@blm.gov](mailto:gbeyersd@blm.gov)>, Eric Yeager <[eyeager@blm.gov](mailto:eyeager@blm.gov)>, "Haddix, John" <[jahaddix@blm.gov](mailto:jahaddix@blm.gov)>, "Miriam (Nicole) Hayes" <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)>, Tami Busch <[tsbusch@blm.gov](mailto:tsbusch@blm.gov)>  
**Subject:** Re: Request for BLM Assistance with 1002 area snow survey

Thank you Wendy,

We are glad to provide the support.

If your travel and budget folks could work directly with Tami Busch our district office staff budget person I would greatly appreciate it. She can be reached @ (907) 474-2221 and via email (her email address is above).

Regards,

Adam

On Fri, Mar 16, 2018 at 7:45 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Adam,

We are grateful for your willingness to make Eric available for this field survey. We believe the information he will help collect is important in preparing to facilitate seismic exploration in the Arctic National Wildlife Refuge Coastal Plain.

I spoke with our travel guru today, and she indicated we would be able to reimburse BLM for travel expenses for Eric after they are paid to him, using an interagency travel form. Our staff can work with Eric or your travel or budget

specialist to complete that transaction. If you are seeking compensation for his time, we will delve into an interagency agreement also (or instead if allowed/better).

Eric and Frank can keep us informed on the anticipated travel costs, which we have heard an estimate of approximately \$8,000.

Thank you all!  
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 Mar 16, 2018, at 16:45, Carr, Adam <[acarr@blm.gov](mailto:acarr@blm.gov)> wrote:

Good Afternoon Wendy,

My name is Adam Carr and I am the Field Manager for the BLM Eastern Interior Field Office. Eric Yeager is a member of my staff and will be able to support this effort. Based on a conversation with Eric, it is my understanding that Colter Franz has helped with some logistical support and not field data collection in the past and could not provide the same level of support as Eric.

Based on the current state of our budget if there is way to cover Eric's labor for this support a it would be greatly appreciated.

Please feel free to give me a call next week if we need to have additional discussions. I will be in the office on Monday and Friday and in travel status Tuesday - Thursday. My cell # is 06.

Regards,

Adam

--

Adam Carr  
Field Manager

Bureau of Land Management  
Eastern Interior Field Office  
[222 University Ave.](#)

[Fairbanks, AK 99709](#)  
[\(907\) 474-2342](#)

**"If you have integrity, nothing else matters. If you don't have integrity, nothing else matters."  
Alan Simpson**

--

Adam Carr  
Field Manager

Bureau of Land Management  
Eastern Interior Field Office  
222 University Ave.  
Fairbanks, AK 99709  
(907) 474-2342

**"If you have integrity, nothing else matters. If you don't have integrity, nothing else matters."  
Alan Simpson**

**From:** [Latty, Christopher](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Tuesday, March 20, 2018 2:21:30 PM

---

Will do. And FYI - if you need to get ahold of me for anything please call me on my cell as I'm not regularly checking emails. b6

On Tue, Mar 20, 2018 at 12:17 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

BLM changed their plan for hawing upwards but if you could get this to me at your earliest convenience this week (ie before 4/3) that would be great. Hopefully a 15 min effort, to be succinct.

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 Mar 20, 2018, at 12:03, Latty, Christopher <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)> wrote:

Hi Wendy,

I'm on leave till April 3, but saw this today. Do you still need my info?

Cheers  
Chris

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your [½ page max](#) response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are

0000007613

allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
[101 12th Avenue](#)  
[Room 236](#)  
[Fairbanks, AK 99701](#)  
cell 907-347-4300

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

**From:** [Wendy Loya](#)  
**To:** [Matz, Angela](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Tuesday, March 20, 2018 3:47:48 PM

---

Thank you!

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 Mar 20, 2018, at 13:35, Matz, Angela <[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)> wrote:

Sorry for the tardy reply. We have an ongoing oil spill. Wasn't quite sure what documents would be relevant so please let me know if you need more information.

1. Angela Matz
2. U.S. Fish and Wildlife Service
3. Fish and Wildlife Biologist (Environmental Contaminants)
4. Environmental Contaminants/Toxicology
5. B.S. Biology, M.S. Environmental Science with an emphasis in Toxicology, Ph.D. in Wildlife Ecology
6. 25 years experience in wildlife toxicology research and management, including 18 in Fairbanks Fish and Wildlife Field Office. Have reviewed variety of EISs for oil and gas exploration, focusing on pollution potential effects to trust resources. Participated in oil spill response and NRDAR for FWS in R7 and Deepwater Horizon. Multiple technical reports on pollution (persistent organic pollutants, heavy metals, and petroleum products) impacts to trust resources (including those used for subsistence). Example here: [https://www.blm.gov/sites/blm.gov/files/documents/files/PublicRoom\\_Alaska\\_2017\\_MiddleKuskokwim\\_Fish\\_Report-TR61.pdf](https://www.blm.gov/sites/blm.gov/files/documents/files/PublicRoom_Alaska_2017_MiddleKuskokwim_Fish_Report-TR61.pdf)

Angela

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title

0000007616

4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Angela Matz, Ph.D.  
U.S. Fish and Wildlife Service  
4700 BLM Road Anchorage, AK 99507-2546  
[angela\\_matz@fws.gov](mailto:angela_matz@fws.gov)  
Phone: 907-271-2778 Cell: 907-750-8527  
Fax: 907-271-2786 Toll Free: 1-800-272-4174

**From:** [Latty, Christopher](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Tuesday, March 20, 2018 4:18:05 PM

---

Opps - somehow hit "send" while still typing on the laptop...

1. Christopher Latty
2. Arctic NWR, U.S. Fish and Wildlife Service
3. Wildlife Biologist
4. Primarily focused on shorebird and waterfowl monitoring, studying the ecology and limiting factors of birds breeding on the North Slope of Alaska, and examining the effects of anthropogenic stressors to birds.
5. Ph.D. Candidate, Marine Biology, University of Alaska Fairbanks, Fairbanks, AK; M.S. Wildlife Biology, University of Alaska Fairbanks, Fairbanks, AK; B.S. Biomedical Science, Grand Valley State University, Grand Rapids, MI
6. Has conducted bird research in Arctic Alaska for 14 years.

On Tue, Mar 20, 2018 at 2:09 PM, Latty, Christopher <[christopher\\_latty@fws.gov](mailto:christopher_latty@fws.gov)> wrote:

1. Christopher Latty
2. Arctic NWR, U.S. Fish and Wildlife Service
3. Wildlife Biologist
4. Primarily focused on shorebird and waterfowl monitoring and studying the ecology and limiting factors of birds breeding on the North Slope of Alaska.
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

, Ph.D. Candidate, Ornithologist, Arctic NWR, U.S. Fish and Wildlife Service.

Chris is the avian biologist for Arctic NWR and has conducted bird research in Arctic Alaska since 2004. His work is primarily focused on shorebird and waterfowl monitoring and studying the ecology and limiting factors of birds breeding on the North Slope of Alaska.

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area “Coastal Plain EIS.” BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your [½ page max](#) response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

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3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

--

Christopher Latty  
US Fish and Wildlife Service  
Arctic NWR  
101 12th Avenue  
Room 236  
Fairbanks, AK 99701  
cell 907-347-4300

**From:** [Crane, Drew](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: No agenda for tomorrow's 1002 meeting  
**Date:** Tuesday, March 20, 2018 5:02:10 PM

---

Hey there,

I may be more out of the loop than others. What contract are you referring to and is the NSSI Oversight Group related to 1002?

Thanks!

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

On Tue, Mar 20, 2018 at 2:58 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

No, I can ask again.

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 Mar 20, 2018, at 14:56, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:

Wendy-

That works. Did you ever receive a scope of work for the contract?

On Tue, Mar 20, 2018 at 2:29 PM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Drew and John,

Since we didn't meet with BLM today and I have not gotten any updates from Nicole, and I also have to join Greg at an NSSI Oversight Group Meeting from 1-330, I am inclined to cancel tomorrow's 1002 meeting and share any updates that come in on Friday. Let me know if you have any agenda items you would like to meet to discuss anyway, and I'll send out an update letting everyone know what is up.

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)

--

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

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

**From:** [Arthur, Stephen](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Leonard, Paul](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Tuesday, March 20, 2018 5:09:44 PM  
**Attachments:** [Bio projects.xlsx](#)

---

Wendy,

I spent some time revising the table of biology projects, because it seemed to me there was some confusion and duplication in the translation from the resource assessments to the table format, and some ideas have shifted a bit during our discussions of the past couple of weeks. The attached file shows my attempt to clarify and condense these research needs.

The biggest change was that I consolidated much of the caribou work into a single large project covering the collaring and tracking, habitat studies, and estimating demographic rates. I think it makes most sense to look at this work in a comprehensive way, rather than piecemeal.

The 2 remaining caribou studies are the analysis of existing data, which is probably complete (pending a report from the Canadian agencies who have done this work), and a new study to estimate caribou use of the coastal plain over the past 100 years or so based on antler accumulations of varying ages (J. Miller's work). This was a proposal we submitted as a Extraordinary Needs project.

I also consolidated the "Other mammals" projects because there was some duplication and overlap between projects. And, the fox-lemming-bird study was listed three times (under birds, foxes, and lemmings). This is really an extension of the ongoing study of ground-nesting birds at the Canning River delta, so I modified that entry to reflect this.

Finally, I added Janet's proposed work to revisit vegetation monitoring sites that were affected by seismic exploration in 1987 to the project description for assessing impacts of seismic work.

Let me know if this seems reasonable, or if you have any questions or comments.

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, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.
  - a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.
  - b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.
2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.
3. Other columns are locked and cannot be edited. Add
4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leanard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

| Wendy

**From:** [Wendy Loya](#)  
**To:** [John Trawick](#); [Stephanie Brady](#); [Joanna Fox](#); [Drew Crane](#); [Steve Berendzen](#); [Socheata Lor](#); [Doug Damberg](#); [Tracy Fischbach](#); [Eric Taylor](#); [John Martin](#)  
**Subject:** Cancelled for 3/20/18: FWS\_Arctic Refuge\_Weekly\_POC\_Updates  
**Date:** Tuesday, March 20, 2018 6:15:12 PM

---

Unless someone has a hidden agenda item not entered onto our rolling Google Doc Agenda, we will cancel tomorrow's (Weds 3/20) internal Arctic Refuge 1002 Program meeting. We did not have a FWS-BLM meeting today (BLM cancelled), so I don't have any updates. If any updates happen this week, we can share those through the POCS via Friday's 1002 Coastal Plain Coordination Biweekly Meeting hosted by the Regional Director's office.

John T, you own this meeting, can you please cancel this occurrence?

Feel free to contact me with any pressing questions....

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)  
1002 Coastal Plain Coordination Biweekly Meeting

**From:** [Crane, Drew](#)  
**To:** [Wendy Loya](#)  
**Subject:** Gantt chart for MMPA/ESA  
**Date:** Tuesday, March 20, 2018 6:29:34 PM  
**Attachments:** [MMPA-ESA ITA Options - V3.docx](#)

---

Still very draft :)

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

**From:** [Loya, Wendy](#)  
**To:** [Miller, Mark](#)  
**Subject:** Re: Reminder - 21 March webinars  
**Date:** Wednesday, March 21, 2018 10:10:24 AM  
**Attachments:** [FWS Resource Assessments and Science Planning for the Arctic Refuge Coastal Plain for NSSI 032108.pptx](#)

---

Mark,

Attached are my slides for this morning's presentation :) I would prefer these were not distributed unless for the intent of following today's talk. Information in them is highly subject to change as we move forward.

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 Tue, Mar 20, 2018 at 11:47 AM, Miller, Mark <[memiller@blm.gov](mailto:memiller@blm.gov)> wrote:

Hi Carolina and Wendy -

Just a quick reminder about tomorrow morning's webinar session, beginning at 9 a.m. I ask that you provide me with your presentations by ~ 8:30 tomorrow morning.

(Sorry Wendy for so many sequential requests....)

Webinar / teleconference info:

**Videoconference GoToMeeting:** b5-CIP

**Teleconference Line:** b5-CIP **Passcode** b5-CIP

Thanks!

---

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*

**From:** [Loya, Wendy](#)  
**To:** [Hayes, Miriam \(Nicole\)](#)  
**Subject:** Additional FWS staff bios  
**Date:** Wednesday, March 21, 2018 11:29:36 AM  
**Attachments:** [Arctic Refuge 1002 EIS FWS Staff Bios received 3\\_19 and 3\\_20.xlsx](#)

---

Still missing a few for staff out of the office, but here are the bios received to date.

Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Jess Grunblatt](#)  
**Subject:** RE: Landcover Mapping  
**Date:** Wednesday, March 21, 2018 12:18:23 PM

---

Hi Jess,

Thanks for that. I will touch base with you about this ASAP. I would guess we would put out an RFP and then have an understanding of our choices, but knowing what we really want is important to the SOW...

Talk 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:** Jess Grunblatt [mailto:[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)]  
**Sent:** Wednesday, March 21, 2018 10:14 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Landcover Mapping

Hi Wendy,

I would encourage you to consider ABR or ACCS as alternative landcover mapping resources for the 1002 area. I have worked with DU processing and products (as NPS Inventory/landcover coordinator) and think higher resolution products and local capacity are best suited to your needs. Happy to talk further.

Jess

--

**Jess Grunblatt**  
Research Professional  
Alaska Center for Conservation Science (ACCS)  
University of Alaska Anchorage,  
Beatrice McDonald Hall - Rm 112  
3211 Providence Dr., Anchorage, Alaska 99508  
[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
Office:(907) 786 6353  
Cell: (907) 244 2435

**From:** [Johnson, Carl](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Wednesday, March 21, 2018 12:19:39 PM

---

Wendy,

Thanks for having BLM correct how we are identified. We all saw that and went, "huh?"

See my other email that Joshua Ream should be the anthropologist listed, not Robbin. And Eva is still out sick. I will see if I can get Joshua to get you a bio.

Carl

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

Like us on [Facebook!](#)

On Wed, Mar 21, 2018 at 9:17 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Carl,

I see the error in BLMs table of expertise classification and will let Nicole at BLM know.

I have not heard from Robbin or Eva yet, need to submit this info to BLM by 11am today at latest

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 Mon, Mar 19, 2018 at 10:54 AM, Johnson, Carl <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)> wrote:

Wendy,

My bio is attached. Both Robbin LaVine and Eva Patton are out sick today, so they will not be able to get this to you today.

Also, I noted that in a separate email you identify us as Land/Realty Specialists. I think it would be more appropriate to identify us as Cultural/Subsistence Specialists.

Carl

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
[1011 E. Tudor Road,](#)  
[Anchorage, AK 99503](#)  
(907) 786-3584

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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Johnson, Carl](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Wednesday, March 21, 2018 12:26:00 PM

---

Oh, and one more thing for Eva ... She may not be serving on the team at all. She feels a bit of a conflict with serving as the Council Coordinator for the North Slope Subsistence Regional Advisory Council, which may produce comments on the EIS process, and also serving on the interdisciplinary team. I am waiting for her to return to fully discuss the issue. In the meantime, perhaps take her off the list and if she decides she wants to participate, will do so only secondarily during the review process.

Thanks.

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

Like us on [Facebook!](#)

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I have not heard from Robbin or Eva yet, need to submit this info to BLM by 11am today at latest

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 Mon, Mar 19, 2018 at 10:54 AM, Johnson, Carl <[carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)> wrote:

Wendy,

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Also, I noted that in a separate email you identify us as Land/Realty Specialists. I think it would be more appropriate to identify us as Cultural/Subsistence Specialists.

Carl

Carl Johnson, J.D.  
Acting Deputy Assistant Regional Director - Region 7  
National Wildlife Refuge System  
[1011 E. Tudor Road.](#)  
[Anchorage, AK 99503](#)  
(907) 786-3584

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1. Name
2. Agency
3. Job Title
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Thank you!

Wendy

Dr. Wendy M. Loya,

Arctic Program Coordinator, Office of Science Applications

US Fish and Wildlife Service

Anchorage, Alaska

907.786.3532 (office)

907.227.2942 (mobile)

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: Landcover Mapping  
**Date:** Wednesday, March 21, 2018 12:30:32 PM

---

Forgot to cc you...

---

**From:** Wendy Loya [mailto:[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)]  
**Sent:** Wednesday, March 21, 2018 10:18 AM  
**To:** 'Jess Grunblatt' <[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)>  
**Subject:** RE: Landcover Mapping

Hi Jess,

Thanks for that. I will touch base with you about this ASAP. I would guess we would put out an RFP and then have an understanding of our choices, but knowing what we really want is important to the SOW...

Talk soon,  
Wendy

Dr. Wendy M. Loya, Coordinator  
Office of Science Applications -Arctic Program  
US Fish and Wildlife Service  
Anchorage, Alaska  
907.786.3532 (office)  
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**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
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Hi Wendy,

I would encourage you to consider ABR or ACCS as alternative landcover mapping resources for the 1002 area. I have worked with DU processing and products (as NPS Inventory/landcover coordinator) and think higher resolution products and local capacity are best suited to your needs. Happy to talk further.

Jess

--

**Jess Grunblatt**  
Research Professional  
Alaska Center for Conservation Science (ACCS)  
University of Alaska Anchorage,  
Beatrice McDonald Hall - Rm 112  
3211 Providence Dr., Anchorage, Alaska 99508  
[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
Office:(907) 786 6353  
Cell: (907) 244 2435

**From:** [Ream, Joshua](#)  
**To:** [Wendy Loya](#)  
**Subject:** Fwd: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Wednesday, March 21, 2018 12:43:53 PM

---

Hi Wendy! I look forward to working with the team on this. As per Carl's request, here is my info:

1. Name: Joshua T. Ream
2. Agency: Office of Subsistence Management
3. Job Title: Cultural Anthropologist
4. Area of Expertise: Subsistence, Anthropology, Wildlife Biology, Alaska Native Studies
5. Education: *Ph.D. in Ethnobiology (University of Alaska Fairbanks), M.S. in Biology (Austin Peay State University), B.S. in Animal Sciences (Pennsylvania State University)*
6. Years and type of experience: *I have worked as a cultural anthropologist for the past two years following completion of my doctoral degree in 2016. While I have worked with many cultural groups across Alaska, my currently assigned regions are the North Slope, the Northwest Arctic, and the Seward Peninsula. I previously worked for three years as a Subsistence Resource Specialist for the Alaska Department of Fish and Game's Division of Subsistence. I am an interdisciplinary scientist by training and have participated in both biological and anthropological research. Recent publications of relevance include:*

***Ream, J.T. and J. Merriam. 2017. Local and Traditional Knowledge of Stikine River Chinook Salmon: a Local Perspective on a Vital Commercial, Sport, and Subsistence Fish. Alaska Department of Game Division of Subsistence, Technical Paper No. 430. Anchorage.***

***Sill, L.A., J.T. Ream, and M. Cunningham. 2017. Harvest and Use of Wild Resources in Yakutat, Alaska, 2015. Alaska Department of Game Division of Subsistence, Technical Paper No. 432. Anchorage.***

***Hazell, S.M., C. Welch, T. Krieg, J. T. Ream, S. Evans, H. Johnson and G. Zimpelman. 2015. Nonsalmon Fish Trends in the Kvichak Watershed: Ethnographic Overview and 2012–2013 Nonsalmon Fish Harvests in 6 Selected Communities, 2012-2013. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. (In-press), Anchorage.***

***Hazell, S. M., R. La Vine, H. Johnson, B. Jones, M. Kukkonen, J. T. Ream, E. Schacht, J. M. Van Lanen and G. Zimpelman. 2014. The Harvest and Use of Wild Resources in Selected Communities of the Copper River Basin and East Glenn Highway, 2013. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 405, Anchorage.***

***Fall, J. A., N. M. Braem, C. L. Brown, S. S. Evans, L. Hutchinson-Scarborough, B. Jones, R. La Vine, T. Lemons, M. A. Marchioni, E. Mikow, J. T. Ream, and L. A. Sill. 2014. Alaska subsistence and personal use salmon fisheries 2012 annual report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 406, Anchorage.***

*Holen, D., S. M. Hazell, J. M. Van Lanen, J. T. Ream, S. P. A. Desjardins, B. Jones, and G. Zimpelman. 2014. The Harvest and Use of Wild Resources in Cantwell, Chase, Talkeetna, Trapper Creek, Alexander/Susitna, and Skwentna, Alaska, 2012. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 385, Anchorage.*

*Fall, J. A., A. R. Brenner, S. S. Evans, D. Holen, L. Hutchinson-Scarborough, B. Jones, R. La Vine, T. Lemons, M. A. Marchioni, E. Mikow, J. T. Ream, L. A. Sill, and A. Trainor. 2013. Alaska subsistence and personal use salmon fisheries 2011 annual report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 387, Anchorage*

Please let me know if I can provide any additional information.

Sincerely,

Joshua T. Ream

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

From: **Johnson, Carl** <carl\_johnson@fws.gov>

Date: Wed, Mar 21, 2018 at 10:23 AM

Subject: Fwd: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info

To: "Ream, Joshua" <joshua\_ream@fws.gov>

Hey Josh,

I understand that you are going to be our anthropologist, not Robbin, working on the 1002 Area EIS. Sorry for the short notice, but, could you get the requested bio to Wendy Loya ASAP. She is going to be sending the info on the interdisciplinary team over to BLM today.

Carl Johnson, J.D.

Supervisory Program Analyst

[Office of Subsistence Management](#)

[1011 E. Tudor Road,](#)

[Anchorage, AK 99503](#)

(907) 786-3676

Like us on [Facebook!](#)

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

From: **Wendy Loya** <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>

Date: Fri, Mar 16, 2018 at 9:08 AM

Subject: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info

To:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area “Coastal Plain EIS.” BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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)

--

Joshua T. Ream, Ph.D.  
(Xíxch'i Toowóo)  
Cultural Anthropologist

United States Fish and Wildlife Service  
Office of Subsistence Management  
1011 East Tudor Road, MS 121  
Anchorage, Alaska 99503-6199

(907) 786-3839 (Direct)

(907) 786-3898 (Fax)

[joshua\\_ream@fws.gov](mailto:joshua_ream@fws.gov) (Email)

[www.doi.gov/subsistence](http://www.doi.gov/subsistence) (Web)

**From:** [Wendy Loya](#)  
**Bcc:** [paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)  
**Subject:** Cancelled for 3/20/18: FWS\_Arctic Refuge\_Weekly\_POC\_Updates  
**Date:** Wednesday, March 21, 2018 12:52:46 PM

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Hi All,

Unless someone has a hidden agenda item not entered onto our rolling Google Doc Agenda, we will cancel tomorrow's (Weds 3/20) internal Arctic Refuge 1002 Program meeting. We did not have a FWS-BLM meeting today (BLM cancelled), so I don't have any updates. If any updates happen this week, we can share those through the POCS via Friday's 1002 Coastal Plain Coordination Biweekly Meeting hosted by the Regional Director's office.

John T, you own this meeting, can you please cancel this occurrence?

Feel free to contact me with any pressing questions....

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)  
1002 Coastal Plain Coordination Biweekly Meeting

**From:** [Brady, Stephanie](#)  
**To:** [Lor, Socheata](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Short course on NEPA and other Refuge system mandates, policies, laws, etc.?  
**Date:** Wednesday, March 21, 2018 1:03:53 PM

---

I would be happy to work with planning staff to pull something together - let me talk to a couple of folks and I will get back to you - generally - an overview of NEPA/ANILCA as it applies to refuges and refuge management? I would say at least a couple of hours - Thanks for the email reminder Soch! 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 Wed, Mar 21, 2018 at 10:06 AM, Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)> wrote:

Hi Wendy and Stephanie,

A while back when Wendy was first appointed to her new role as 1002 POC, I mentioned that it would be a good idea to provide her an overview of NWRS-specific short course.

I could also benefit from the short course. I took the NEPA and ANILCA courses a few years ago and could use a refresher.

Can we find a time to pull this together? Would it be a half-day, 2 hours, or some other length?

Thoughts?

Soch

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

**From:** [Lor, Socheata](#)  
**To:** [Brady, Stephanie](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Short course on NEPA and other Refuge system mandates, policies, laws, etc.?  
**Date:** Wednesday, March 21, 2018 1:41:01 PM

---

I'm flexible on time. Next week and first two weeks of Apr. is bad bc of travels.

Thank you !

**Soch**

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

On Wed, Mar 21, 2018 at 11:18 AM, Brady, Stephanie <[stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)> wrote:

Also - when were you thinking of having this refresher? I am out attending training April 9-27 - but I guess I do not have to be there?? thx. 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 Wed, Mar 21, 2018 at 10:06 AM, Lor, Socheata <[socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)> wrote:

Hi Wendy and Stephanie,

A while back when Wendy was first appointed to her new role as 1002 POC, I mentioned that it would be a good idea to provide her an overview of NWRS-specific short course.

I could also benefit from the short course. I took the NEPA and ANILCA courses a few years ago and could use a refresher.

Can we find a time to pull this together? Would it be a half-day, 2 hours, or some other length?

Thoughts?

**Soch**

~~~~~  
*Socheata Lor, Ph.D.*  
*Deputy Assistant Regional Director - Region 7*  
*National Wildlife Refuge System*

*U.S. Fish and Wildlife Service*  
*1011 E. Tudor Road*  
*Anchorage, AK 99503*  
*Office: 907.786.3420*  
*Cell: 907.891.6194*

~~~~~

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: Link to Draft 1002 Resource Assessment Studies Tables  
**Date:** Wednesday, March 21, 2018 1:41:30 PM

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**From:** Loya, Wendy [mailto:[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)]  
**Sent:** Friday, March 16, 2018 4:21 PM  
**To:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>; Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>; John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>; Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>; Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>  
**Subject:** Link to Draft 1002 Resource Assessment Studies Tables

Dear Refuges staff,

Paul and I have uploaded the 1002 recommended studies sheet to the ArcticLCC google drive for sharing (share settings: anyone with the link can comment) Once I get your feedback that this is accessible and you are able to download for your purposes, I will share the link with others.

You should be able to comment if you wish to add notes or suggest edits, then Paul or I will accept the comments. I don't anticipate the studies to change much in the next week, but we will add notes as we learn about what is being done by others or make progress so please check back in before major planning efforts.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

Office of Science Applications -Arctic Program is planning to fund the vegetation map and will try to move ahead with getting a scope of work that fits near term (exploration) needs.

Have a great weekend, and thanks for your help!  
Wendy

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

**From:** [Leonard, Paul](#)  
**To:** [Arthur, Stephen](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Due March 9th: Review Arctic Refuge 1002 area Resource Assessment Recommended Studies Table  
**Date:** Wednesday, March 21, 2018 5:46:49 PM

---

Hey Steve,

I was just speaking with John Trawicki and I have updated permissions for the spreadsheet. You should be able to edit directly now.

When I received his call I was in the middle of reconciling your version into the the google sheet. I will stop doing that now unless you'd like for me to continue. I completed the bird projects from your edit.

Cheers,  
Paul

On Tue, Mar 20, 2018 at 3:09 PM, Arthur, Stephen <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)> wrote:

Wendy,

I spent some time revising the table of biology projects, because it seemed to me there was some confusion and duplication in the translation from the resource assessments to the table format, and some ideas have shifted a bit during our discussions of the past couple of weeks. The attached file shows my attempt to clarify and condense these research needs.

The biggest change was that I consolidated much of the caribou work into a single large project covering the collaring and tracking, habitat studies, and estimating demographic rates. I think it makes most sense to look at this work in a comprehensive way, rather than piecemeal.

The 2 remaining caribou studies are the analysis of existing data, which is probably complete (pending a report from the Canadian agencies who have done this work), and a new study to estimate caribou use of the coastal plain over the past 100 years or so based on antler accumulations of varying ages (J. Miller's work). This was a proposal we submitted as a Extraordinary Needs project.

I also consolidated the "Other mammals" projects because there was some duplication and overlap between projects. And, the fox-lemming-bird study was listed three times (under birds, foxes, and lemmings). This is really an extension of the ongoing study of ground-nesting birds at the Canning River delta, so I modified that entry to reflect this.

Finally, I added Janet's proposed work to revisit vegetation monitoring sites that were affected by seismic exploration in 1987 to the project description for assessing impacts of seismic work.

Let me know if this seems reasonable, or if you have any questions or comments.

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, Mar 2, 2018 at 9:42 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear Resource Assessment team leads,

We would like to ask your help in the next step of compiling the Arctic Refuge 1002 Area Resource Assessments. Attached is a table that has the recommended studies your assessment identified. Some subjects have been combined.

What I would like to ask you to do is:

1. Review the Purpose, Need and Recommended action and edit as you see fit.
  - a. In some instances, we had to do some interpretation or writing to identify the Purpose, Need and Recommended Action.
  - b. Please refer to the PDF of Table 2.3 of the NPRA EIS for further information on possible lease Stipulations for your subject and adjust the Recommended Action if needed.

You can search the PDF for your keyword (Bird, caribou, air quality, etc) to find the relevant stipulations, focusing on Alt B-2 if differences across Alternatives.

2. Please include a Budget and number of years if you can estimate these, however, not essential at this time.
3. Other columns are locked and cannot be edited. Add
4. If you need to update your Resource Assessment document to add or change anything based on new information, please do so. You can find them in P:\1002ArcticRefuge\1-Working\Resource Assessments Originals (Word not PDF). Please rename your updated Assessment with the current date (e.g. Air Quality 030218). If you don't have access to the drive, please contact IT to have them assign it to your profile.

**Please email your updated table to me and Paul Leonard by March 9<sup>th</sup>, or let us know if you do not plan to make any changes. If you have questions during the week of March 5-9<sup>th</sup>, please ask Paul.** If you are unable to meet this deadline, please let us know.

We will use the table in addition to your Resource Assessment narratives in a compiled document as our initial Science Plan for the 1002 Area; we'll adapt this document as we learn more.

Thank you for your great effort on this,

Sincerely,

Wendy

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

101 12th Ave. Room 216

Fairbanks, AK 99701

(907) 456-0445

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Loya, Wendy](#)  
**Cc:** [John Pearce](#)  
**Subject:** Re: Agenda items for Friday 1002 interagency call?  
**Date:** Thursday, March 22, 2018 10:25:25 AM

---

I do not have anything - I imagine things may pick up after this week.

**Nicole Hayes**

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

On Thu, Mar 22, 2018 at 8:23 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi John and Nicole,

I do not have any pressing issues to discuss tomorrow, do either of you? I would like to talk with John about the QRP program to identify if any of our priority projects would fit that call and be able to share that with our Regional Directorate Team (I know it is not out yet), but we can do that directly. I imagine if we get a budget tomorrow, we will have news by next Friday.

Thank you,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Amy Holman](#); [Catherine Coon](#); [Dunton, Kenneth H](#)  
**Subject:** Arctic Refuge 1002 Coastal Resources Assessment  
**Date:** Thursday, March 22, 2018 12:52:38 PM  
**Attachments:** [1002 area Coastal Resources Assessment DRAFT 021318.docx](#)

---

Hi Ken, Cathy and Amy,

I would like to follow up with each of you with regards to the attached draft of the Coastal Resources Assessment for the 1002 area. Each of you had contacted me to indicate you had additional information to consider, so I would like to make sure to capture your knowledge, thoughts and ideas as I move towards finalizing this for the first iteration of the document. I do expect we will update these periodically as new information becomes available as well as our knowledge about how exploration and development will proceed. For now, our goal is to have all of the assessments available next week for research/budget planning efforts.

Let me know when you have time to talk, or give me a ring. I do expect to be in the office all day today without any scheduled meetings.

Best regards,  
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:** [Pearce, John](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: Agenda items for Friday 1002 interagency call?  
**Date:** Thursday, March 22, 2018 1:33:57 PM

---

Hi Wendy,

Regarding the QRP and SSP funding, the annual priorities for that partnership program are determined by the USFWS and then USGS responds, working in collaboration with FWS scientists to develop proposals. Let me know if you'd like to discuss further.

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 Thu, Mar 22, 2018 at 8:23 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi John and Nicole,

I do not have any pressing issues to discuss tomorrow, do either of you? I would like to talk with John about the QRP program to identify if any of our priority projects would fit that call and be able to share that with our Regional Directorate Team (I know it is not out yet), but we can do that directly. I imagine if we get a budget tomorrow, we will have news by next Friday.

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:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: List  
**Date:** Thursday, March 22, 2018 3:25:50 PM

---

To clarify - Hollis, Eva, Carl and Robbin would all be considered to have subsistence expertise?

**Nicole Hayes**

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

On Wed, Mar 21, 2018 at 10:23 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Nicole,

Two requested changes to this EIS Team ID list:

Staff with expertise related to Subsistence are associated with an incorrect job title of Lands/Realty Specialist.

Can you please remove Paul Leonard from the Hydrologist row for FWS?

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 Fri, Mar 16, 2018 at 8:16 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

Thanks, Wendy.

**Nicole Hayes**

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

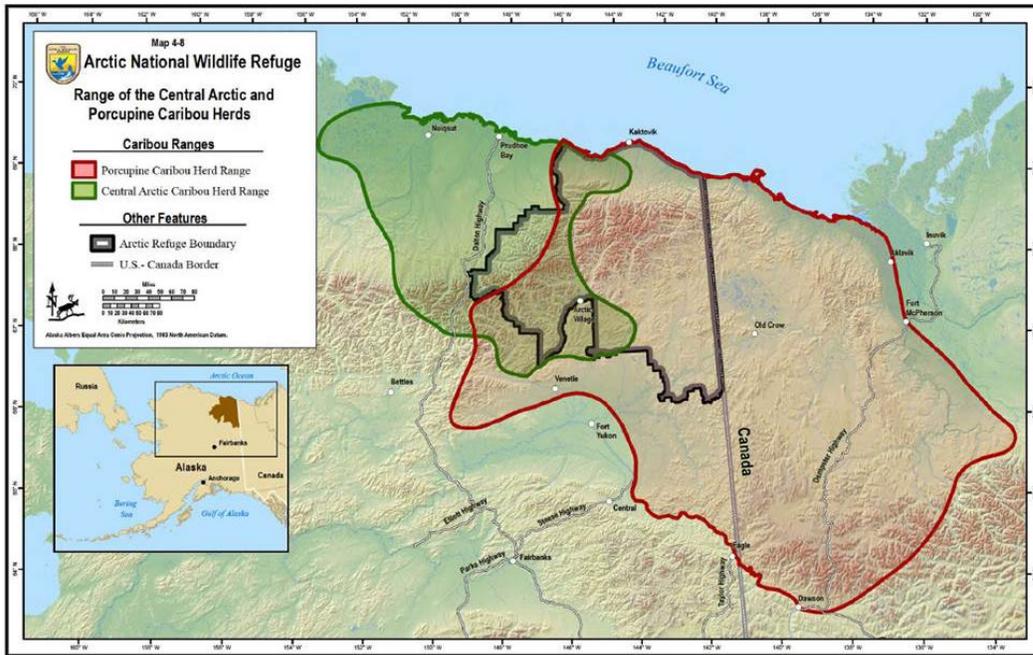
**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#); [John Pearce](#)  
**Subject:** RE: Info regarding communities in and near the Arctic Refuge from CCP  
**Date:** Thursday, March 22, 2018 3:27:20 PM  
**Attachments:** [Griffithetal2002ANWRPCHistory.pdf](#)

Hi Nicole,

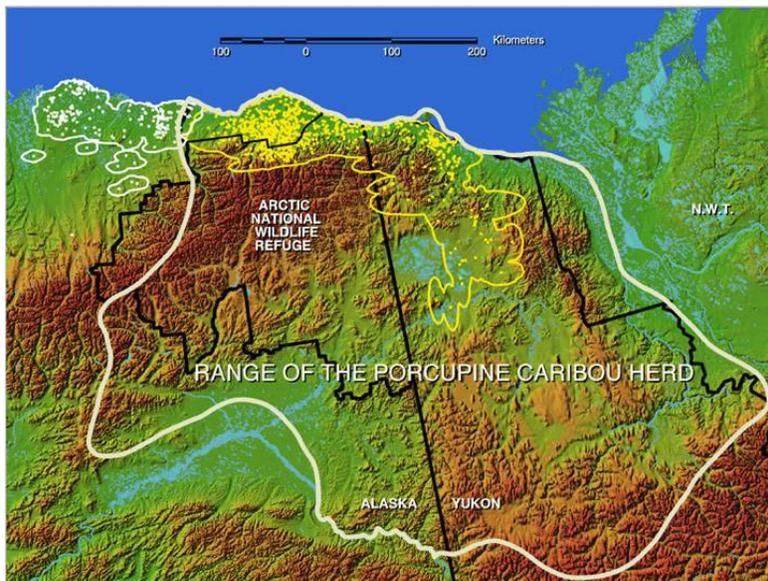
That is very strange. I am copying the CCP map below, from page 4-103. This would expand the communities to include Chalkyitsik, Circle, Wiseman/Coldfoot, with Ft. Yukon just outside the range, but recommended to be included.

Griffiths et al. 2002 has a similar map, so I would imagine that Griffiths et al. 2002 is the source of these data, I will attempt to confirm.

CCP Map:



Griffiths et al. 2002map



**Figure 3.2.** For the Porcupine caribou herd: annual range (wide white solid line), calving sites (yellow points), and aggregate extent of calving (thin solid yellow line), 1983-2001. For the Central Arctic caribou herd: aggregate extent of calving (thin solid white line) and calving sites (white points), 1980-1995. (Adapted from Wolfe 2000).

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:** Hayes, Miriam (Nicole) [mailto:[mnhayes@blm.gov](mailto:mnhayes@blm.gov)]  
**Sent:** Thursday, March 22, 2018 1:01 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>; John Pearce <[jpearce@usgs.gov](mailto:jpearce@usgs.gov)>  
**Subject:** Re: Info regarding communities in and near the Arctic Refuge from CCP

Hi Wendy and John,

I do have a question regarding this map that was provided in the ADFG PCH 2017 newsletter (

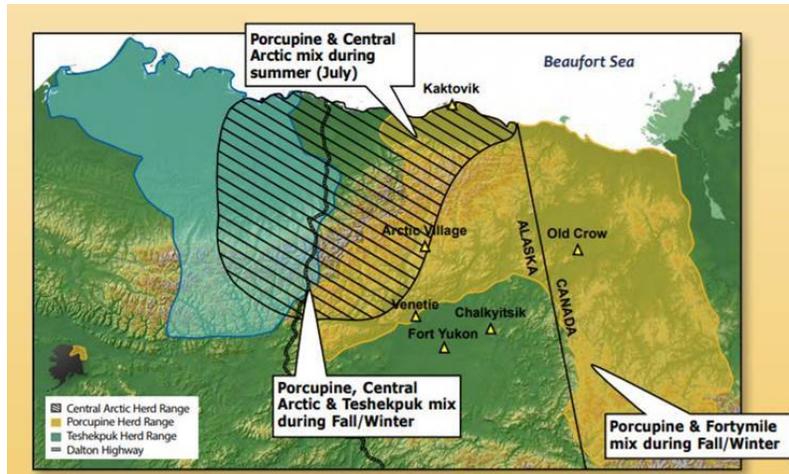
[http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/porcupine\\_caribou\\_news/porcupine\\_caribou\\_news\\_summer\\_2017.pdf](http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/porcupine_caribou_news/porcupine_caribou_news_summer_2017.pdf))

- any idea of where the data may have come from? We asked our GIS team to put together a map with some of the caribou range information in relation to the Refuge and Coastal Plain boundaries but when they contacted ADFG, ADFG was not sure where the source of the data came from for this map (?). We have some caribou herd data sets but they may be a little dated (definitely don't match this map). Would your departments have any recent data regarding the range of Porcupine and Central Herds that could be shared?

Thanks!

Nicole

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



**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** RE: airborne snow mapping  
**Date:** Thursday, March 22, 2018 3:52:08 PM

---

Thanks for checking in with Dan Sheldon, that would be great.

I will send out an email and probably a doodle poll about the where to fly question. I think it needs to be a coordinated conversation including the snowologists if they are available. Will probably be next week that we talk.

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:** Leonard, Paul [mailto:[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)]  
**Sent:** Thursday, March 22, 2018 1:49 PM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: airborne snow mapping

I tried to find staff after this email came in but folks appear out of the office. I did write Janet an email.

About question 2 (fuel from Galbraith Lake) - I can go and talk to Dan Sheldon - I was told he is the contact.

On Thu, Mar 22, 2018 at 12:35 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Matthew et al.

Let me look into the questions and get back to you. I will consult with Refuge staff and the polar bear guys to get input on question 1. Will ask Refuge managers about Q2. I think you are the experts on Q3 along with Glen Liston or Chris Heimstra in terms of what we might need to model, but I will check with Polar Bear folks also.

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)

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

From: Matthew Sturm [mailto:[msturm1@alaska.edu](mailto:msturm1@alaska.edu)]  
Sent: Thursday, March 22, 2018 11:58 AM  
To: Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>; Paul Leonard <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)>  
Cc: Frank Urban <[urban@usgs.gov](mailto:urban@usgs.gov)>; Chris Larsen <[cflarsen@alaska.edu](mailto:cflarsen@alaska.edu)>  
Subject: airborne snow mapping

Hi Paul and Wendy:

Frank Urban, Chris Larsen and I just completed a pre-field campaign teleconference, and everything seems to be on track. We had some strategic and tactical questions for you:

1. Is there any USFWS 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.
2. Fuel: we are basing our budget and available flying time on the fact that we can obtain USFWS fuel at Galbraith Lake, and Kaktovik (correct for this latter?). In the past we have gotten the Galbraith key from the ANWR folks. That still the case? We also recognize that we might be able to maximize our time over the 1002 area if we could buy fuel at Kavik. Would it be a possibility do do this and charge it to the USFWS?
3. 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?

Matthew (on behalf of Frank and Chris)

--

Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturm1@alaska.edu](mailto:msturm1@alaska.edu)

--

Paul Leonard, PhD  
Science Coordinator  
[Arctic LCC](#)  
101 12th Ave. Room 216

0000007657

Fairbanks, AK 99701  
(907) 456-0445

**From:** [Frank Urban](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Snow Survey in 1002 area  
**Date:** Thursday, March 22, 2018 3:54:32 PM

There is no overhead on ITA, on IAA there is the 57%

On Mar 22, 2018, at 2:57 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Dee,

This project was identified in the FWS's Resource Assessment process for science needs for the 1002 area. It rose to being one of about 10 high priority studies, and due to Dr. Matthew Sturm's ability to get rapid-response NASA funding, we can gather information April 10-19<sup>th</sup>, 2018 that we can use to inform discussions on monitoring needed to inform seismic permitting as well as conversations about how to refine polar bear habitat mapping between FWS and USGS. It is not the only data needed, but will provide an initial datapoint to evaluate accuracy of remote sensing products and design a better study. Frank is seeking \$8,000 to cover his travel to Alaska, buy fuel for BLM provided vehicles including snowmachines, supplies needed for the trip and shipping equipment to Alaska. I understand from Frank there is a 57.81% overhead for the IAA and I am not clear if the same overhead applies to an ITA. The total amount is not large, FWS is willing to cover it, but I also feel it is small enough request that it was worth asking you all.

Thank you,  
Wendy

Purpose	Need	Recommended Action	Projected Annual Cost	USGS Comments on 03/02/18 via John Pearce	FWS Comments via Wendy Loya
Create and/or Evaluate Snow Distribution Models to capture snow depth across the 1002 Area	To be able to identify annually snow drifts with highest probability to create potential polar bear denning habitat (MMPA/ESA). To establish minimum snow required for winter tundra travel to protect taller stature vegetation in 1002 area during exploration and development.	Snow depth and drifting monitoring and calibration of snow model for 1002 area. A combination of snow, wind and temperature monitoring stations and ground surveys, as well as high-resolution digital elevation models will be necessary to create a more accurate snow model for the 1002 area. UAF has received funding from NASA to collect aircraft-based imagery of snow levels in April 2018, and funding is needed for fuel, lodging and ground truthing by snowmachine surveys. This would provide a preliminary baseline for snow depth in polar bear denning habitat and for winter tundra travel. Continued operation of 3 remote meteorological stations provides continuous temperature, wind and precipitation (including snow). Addition of 2-3 NRCS run SNOTEL sites would improve spatial coverage (\$13k annual / \$24-30k installation per site - estimates from SNOTEL (NRCS contribution possible)). This information, coupled with requested vegetation map and high resolution topography (DEM) map would be used to plan future monitoring and aerial imagery acquisition to inform an improved snow model based off the SnowDens 3D Model developed by Dr. Glen Liston through a previous NFWF grant.	2018: \$12K for winter fieldwork; \$30-100k SNOTEL initiation (NRCS contribution would decrease)/ \$13k per annum SNOTEL operation	USGS has three climate stations within the 1002 area and is investigating support of maintenance activities in FY18. Regarding snow, USGS recommends contacting NSIDC to explore use of remotely sensed products: 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 ( <a href="http://nsidc.org/data/MOD10A1">http://nsidc.org/data/MOD10A1</a> ; <a href="http://nsidc.org/data/MYD10A1">http://nsidc.org/data/MYD10A1</a> ). Second, MOD10A2 and MYD10A2 have a snow extent parameter, but is an 8-day product with temporal coverage dating back to 2000 ( <a href="http://nsidc.org/data/MOD10A2">http://nsidc.org/data/MOD10A2</a> ; <a href="http://nsidc.org/data/MYD10A2">http://nsidc.org/data/MYD10A2</a> ). Third, 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 ( <a href="http://nsidc.org/data/NISE">http://nsidc.org/data/NISE</a> ). Last, there is NASA IceBridge data on the North Slope ( <a href="https://nsidc.org/icebridge/portal/map">https://nsidc.org/icebridge/portal/map</a> ).	Dr. Matthew Sturm of UAF was able to secure funding from NASA to fly preliminary LiDAR and Structure for Motion (SFM) imagery this April. This aircraft-based remote sensing needs to be ground-truthed for validation. Dr. Frank Urban of USGS is able to help with the ground survey, as he regularly monitors snow across the north slope, including NPRA and the 1002 area, at his remote stations. Travel is April 10-19. BLM will make Fairbanks Field office

					employee Eric Yeager available to accompany Dr. Urban and FWS will pay Eric's travel.
--	--	--	--	--	--

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:** [Arthur, Stephen](#)  
**To:** [Trawicki, John](#); [Wendy Loya](#); [Diane Granfors](#); [Steve Berendzen](#); [Joanna Fox](#); [Doug Damberg](#)  
**Subject:** Re: refuge priorities  
**Date:** Thursday, March 22, 2018 5:04:36 PM

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I made the necessary edits to the table of Refuge priorities. So I hope this captures our discussion yesterday. Please look it over and let me know if there are any changes that should be made.

Also, is this table sufficient for additional discussions regarding funding decisions for this FY, or do we need additional detail, project descriptions, etc.?

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 22, 2018 at 2:14 PM, Trawicki, John <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)> wrote:

Steve Arthur-

I made changes to 3 projects in the main table and copied them to the refuge priority tab. They start on row 20. You will need to move them in to the appropriate area in the refuge table. If you have questions please call.

--

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

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

**From:** [Wendy Loya](#)  
**To:** [Paul Leonard](#)  
**Subject:** FW: Science Applications Assistance With 1002 Needs?  
**Date:** Thursday, March 22, 2018 5:52:58 PM

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**From:** Sarena Selbo [mailto:[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)]  
**Sent:** Thursday, March 22, 2018 12:34 PM  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Fwd: Science Applications Assistance With 1002 Needs?

Let's talk about this

Begin forwarded message:

**From:** "Berendzen, Steve" <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>  
**Date:** March 22, 2018 at 3:14:44 PM CDT  
**To:** Sarena Selbo <[sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)>  
**Cc:** Doug Damberg <[doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)>, John Trawicki <[john\\_trawicki@fws.gov](mailto:john_trawicki@fws.gov)>, Diane Granfors <[diane\\_granfors@fws.gov](mailto:diane_granfors@fws.gov)>, Joanna Fox <[joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)>, Stephen Arthur <[stephen\\_arthur@fws.gov](mailto:stephen_arthur@fws.gov)>  
**Subject:** Science Applications Assistance With 1002 Needs?

Sarena,

The team working on the resource assessment needs projects for the 1002 area has prioritized several projects that we would like to initiate this fiscal year. One large mapping project that combines wetland inventory, hydrography, and vegetation cover mapping has been identified as a top priority and I'm wondering if Science Applications could assist with this? Would it be possible to assemble a technical team to develop a scope of work for this?

If so, I recommend Janet Jorgenson, botanist from the Arctic staff as a participant who has many years of experience in the 1002 area. Another local scientist to consider with knowledge of the 1002 area and its' biotic and abiotic resources is Torre Jorgenson - Janet's husband. Josh Rose with the Refuges I&M program in Fairbanks is knowledgeable about soils, hydrology, and natural processes - I think he could make contributions to this effort as well. If Science Applications could assist with this effort, we would be happy to help coordinate with participants from Fairbanks.

I'm also curious if Science Applications might be able to provide monetary support for this project? We don't have a good cost estimate developed - we'd be dependent on this team to come up with that, but any support that could be provided would help with getting priority projects lined up to assist with our information needs on the 1002 in anticipation of seismic work and further development of oil and gas resources.

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

**From:** [Williams\\_Dee](#)  
**To:** [Wendy Loya](#)  
**Cc:** [John Pearce](#); [Frank Urban](#)  
**Subject:** Re: Snow Survey in 1002 area  
**Date:** Thursday, March 22, 2018 6:36:07 PM

Hi Wendy: Thanks for the note. Apparently a decision will not be forthcoming about this until next week after DOI leadership in Alaska can agree on priorities for action in the face of new instruction from the Department. John Pearce is representing USGS on this particular planning work group so its best to continue to coordinate directly with him, as he communicates regularly with the Regional Office on these matters. Cheers.

On Thu, Mar 22, 2018 at 12:57 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Dee,

This project was identified in the FWS's Resource Assessment process for science needs for the 1002 area. It rose to being one of about 10 high priority studies, and due to Dr. Matthew Sturm's ability to get rapid-response NASA funding, we can gather information April 10-19<sup>th</sup>, 2018 that we can use to inform discussions on monitoring needed to inform seismic permitting as well as conversations about how to refine polar bear habitat mapping between FWS and USGS. It is not the only data needed, but will provide an initial datapoint to evaluate accuracy of remote sensing products and design a better study. Frank is seeking \$8,000 to cover his travel to Alaska, buy fuel for BLM provided vehicles including snowmachines, supplies needed for the trip and shipping equipment to Alaska. I understand from Frank there is a 57.81% overhead for the IAA and I am not clear if the same overhead applies to an ITA. The total amount is not large, FWS is willing to cover it, but I also feel it is small enough request that it was worth asking you all.

Thank you,

Wendy

Purpose	Need	Recommended Action	Projected Annual Cost	USGS Comments on 03/02/18 via John Pearce	FWS Comments via Wendy Loya
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					FWS will pay Eric's travel.
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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:** [Frost, Eileen](#)  
**To:** [Karen Clark](#); [Devaris, Aimee](#); [Miriam \(Nicole\) Hayes](#); [Wendy Loya](#); [Marlo Draper](#); [John Pearce](#); [Lynne Santos](#)  
**Cc:** [Karen Mouritsen](#); [Murphy, Ted](#)  
**Subject:** MEETING REQUEST: Data Needs for Coastal Plain  
**Date:** Thursday, March 22, 2018 7:01:33 PM

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Greetings,

I am reaching out at the request of Karen Mouritsen, to schedule a meeting to discuss the data needs for the Coastal Plain; a one-hour time slot is requested. Ms. Mouritsen is available to travel to FWS if that works best for everyone.

Below are a few suggested time slots, please let me know your availability. Please indicate your preference to meet at FWS or BLM.

**Monday, March 26** -- 2-3:00 pm

**Wednesday, March 28** -- 4-5:00 pm

**Thursday, March 29** -- 4-5:00 pm

**Friday, March 30** -- 8:00 - 9:30 am; 1:30 - 2:30 pm; 4-5:00 pm

Thank you, ~Eileen

--

Best Regards,

Eileen A. Frost

Bureau of Land Management  
State Director's Office  
222 W. 7th Avenue, #13  
Anchorage, AK 99513  
907-271-5080

0000007665

**From:** [Swaim, Michael](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 23, 2018 2:32:34 PM

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Wendy,

I have provided my responses to your questions in ***bold italic*** below.

Please pardon my tardiness on this. I just returned from annual leave.

Thanks,

Michael

1. Name: ***Micheal Swaim***
2. Agency: ***US Fish and Wildlife Service, Division of Migratory Birds***
3. Job Title: ***Wildlife Biologist / GIS***
4. Area of Expertise: ***Population Monitoring, Geospatial Mapping, and Analysis***
5. Education: any post-secondary degrees: ***BS Biology***
6. Years and type of experience: ***2+ decades***

Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.

***I have over 20 years of experience working as a resource manager for various Federal Agencies (i.e., USFWS, USFS, NPS), with 15 years working as a Wildlife Biologist for the Yukon Delta National Wildlife Refuge, Togiak National Wildlife Refuge, and US Fish and Wildlife Service, R7 Division of Migratory Birds. Relevant experience includes: conducting population monitoring and demographic studies (aerial and land-based) on waterfowl, shorebirds, seabirds, landbirds, raptors, and marine mammals. Other duties have included performing habitat assessment, habitat suitability modeling, habitat mitigation, landcover mapping, water quality monitoring, geospatial modeling & analysis, writing NEPA (CE, EA, and EIS with USFS Kaibab NF) and NEPA review (Chuitna Coal, Donlin Mine, Pebble Mine, USAF Cape Newenham Wind Turbine). Current duties include the design, implementation, and analysis of aerial surveys on the Yukon Delta, Arctic Coastal Plain, Copper River Delta, Bristol Bay, Alaska Peninsula, and Izembek Lagoon. Recently completed reports and documents include:***

***Swaim, M. 2017. Abundance and trend of waterbirds on the Yukon-Kuskokwim Delta, Alaska, 1988-2016. U.S. Fish and Wildlife Service, Migratory Bird Management, 1011 E. Tudor Rd., Anchorage.***

***Swaim, M. and H. Wilson. 2017. 2017 Yukon-Kuskokwim Delta Coastal Zone Survey of Geese, Swans, and Sandhill Cranes. U.S. Fish and Wildlife Service, Migratory Bird Management, 1011 E. Tudor Rd., Anchorage.***

***Swaim, M. and J. Fischer. 2017. Detection-Adjusted Population Estimates for Spectacled Eider, Yukon-Kuskokwim Delta, Alaska, 1988-2017. U.S. Fish and Wildlife Service, Migratory Bird Management, 1011 E. Tudor Rd., Anchorage.***

**Swaim, M. and H. Wilson. 2016. 2016 Yukon-Kuskokwim Delta Coastal Zone Survey of Geese, Swans, and Sandhill Cranes. U.S. Fish and Wildlife Service, Migratory Bird Management, 1011 E. Tudor Rd., Anchorage.**

**Swaim, M. and J. Fischer. 2016. Detection-Adjusted Population Estimates for Spectacled Eider, Yukon-Kuskokwim Delta, Alaska, 1988–2016. U.S. Fish and Wildlife Service, Migratory Bird Management, 1011 E. Tudor Rd., Anchorage.**

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area “Coastal Plain EIS.” BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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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**Michael Swaim**  
Wildlife Biologist / GIS  
Migratory Bird Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503  
Tel: 907-786-3504  
Fax: 907-786-3541

**From:** [Wendy Loya](#)  
**To:** [Nicole Hayes](#)  
**Subject:** Additional FWS Bios for 1002 EIS  
**Date:** Friday, March 23, 2018 2:41:42 PM  
**Attachments:** [Arctic Refuge 1002 EIS FWS Staff Bios received 3\\_19 and 3\\_20.xlsx](#)

---

Hi Nicole,

I am including 2 additional bios for FWS as a new tab in the workbook I sent earlier this week. Josh Ream can be added to the Subsistence tab. You had asked about the individuals listed for subsistence, and as it was described to me, Josh is an anthropologist that works with Arctic communities and has the most specific expertise, and the other staff have extensive experience in working with communities and preparing information on subsistence. If you would like to ask more explicit questions, I can forward them for answers.

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:** [Lavine, Robbin](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Friday, March 23, 2018 3:01:38 PM

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Hi Wendy, How specific do you want me to be? Will the following work?

1. Name: Robbin La Vine
2. Agency: Office of Subsistence Management, USFWS
3. Job Title: Anthropology Division Supervisor, Acting
4. Area of Expertise: Applied Anthropology, The Subsistence Way of Life, South Central and Southwest Alaska
5. Education: *MA Applied Anthropology*
6. Years and type of experience: Robbin La Vine is an applied anthropologist with extensive experience conducting subsistence research and building partnerships with tribal, state, and Federal entities in Alaska since 2002. Over the course of her professional career she proposed and conducted ethnographic and harvest monitoring research in over 25 rural Alaskan communities as both field team leader and principal investigator.

Robbin La Vine, Anthropologist  
*Office of Subsistence Management*  
U.S. Fish and Wildlife Service  
1011 E. Tudor Rd. MS 121  
Anchorage, AK 99503  
(907) 786-3888 (main)  
(907) 786-3353 (desk)  
(907) 786-3898 (fax)

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

0000007670

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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:** [Berendzen, Steve](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Joanna Fox](#)  
**Subject:** Re: FW: Consultation with Tribes, Corporations on 1002  
**Date:** Friday, March 23, 2018 5:14:06 PM

---

Thanks, Wendy - we'll have Hollis attending if at all possible. I'll plan to be on the call also.

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

On Fri, Mar 23, 2018 at 3:02 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Steve and Joanna,

Nicole at BLM would like to talk with you and Hollis next week during our regularly scheduled FWS-BLM Weekly Check-in on Coastal Plain 1002 from 2-3pm. Can you see if Hollis is available to attend in order to find out what BLM would like FWS to do with regards to preliminary outreach to communities? Also, want to make sure both or one of you two were available for this conversation. There are of course details I can't capture and correctly convey, so I have asked that we discuss this on Tuesday with BLM directly.

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

**Sent:** Friday, March 23, 2018 2:22 PM

**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>

**Subject:** Fwd: Consultation with Tribes, Corporations on 1002

Please let me know when you have a chance to discuss...

Thanks!

Nicole

**Nicole Hayes**

Project Coordinator

Bureau of Land Management

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

[Anchorage, Alaska 99513](#)

Desk: (907) 271-4354

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

From: **Murphy, Ted** <[t75murph@blm.gov](mailto:t75murph@blm.gov)>

Date: Thu, Mar 22, 2018 at 4:51 PM

Subject: Fwd: Consultation with Tribes, Corporations on 1002

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

Does this differ from what we have already?

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

From: **Siekaniiec, Greg** <[greg\\_siekaniiec@fws.gov](mailto:greg_siekaniiec@fws.gov)>

Date: Thu, Mar 22, 2018 at 10:07 AM

Subject: Fwd: Consultation with Tribes, Corporations on 1002

To: Ted Murphy <[t75murph@blm.gov](mailto:t75murph@blm.gov)>

My apology for not sending this earlier.

greg

0000007673

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

From: **Leonetti, Crystal** <[crystal\\_leonetti@fws.gov](mailto:crystal_leonetti@fws.gov)>

Date: Tue, Mar 20, 2018 at 10:03 AM

Subject: Consultation with Tribes, Corporations on 1002

To: Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

Cc: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

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**

0000007674

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)

--

Ted A Murphy

Alaska-Associate State Director

907-271-5076

**From:** [Matthew Sturm](#)  
**To:** [Burkart, Greta](#); [Wendy Loya](#)  
**Cc:** [Stephen Arthur](#); [Janet Jorgenson](#); [Joshua Rose](#); [Ted Swem](#); [John Trawicki](#); [Paul Leonard](#); [Steve Berendzen](#); [Joanna Fox](#)  
**Subject:** [EXTERNAL] Re: Fairbanks staff: Airborne snow mapping in 1002 area next month  
**Date:** Friday, March 23, 2018 10:55:03 PM  
**Attachments:** [image.png](#)

---

Hi Greta:

Good point. Can you go a bit further: These lakes....what sort of recharge areas do they have? Local (i.e., within a few kilometers of the lake) or distal.....long-range refill from the bigger river systems?

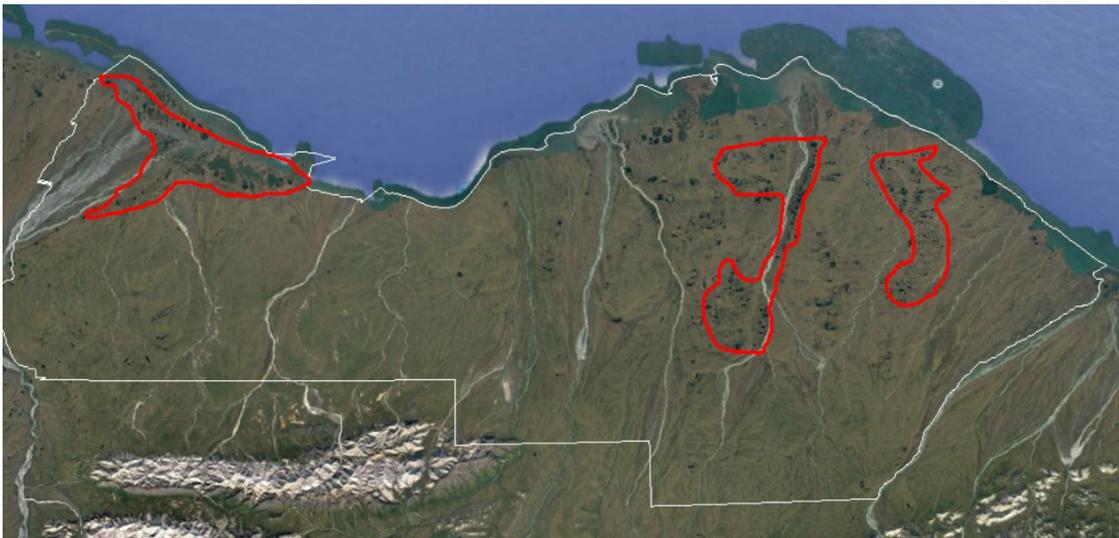
Matthew

On 3/23/18 1:59 PM, Burkart, Greta wrote:

Hi Everyone,

Information that improves our estimates of end-of season snow pack available to recharge lakes in the Canning River Delta and near the Jago and Niguanak rivers (see attached map) would be particularly helpful for assessing lake vulnerability to adverse impacts of pumping. I assume these areas would not have to be covered directly as improved models of end-of-season snow pack would benefit us all areas.

Greta



Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service

Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Thu, Mar 22, 2018 at 3:02 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear colleagues,

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 on the coastal plain. I understand that early winter snow depth is potentially more relevant to opening an area to winter tundra travel, but I do hope that this information will help us understand general snow depth/redistribution patterns associated with topography. We are also consulting with polar bear researchers for other insights into terrain variation that could affect snow depth for polar bear denning habitat.

Thank you in advance for your time.

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)

--

Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturml@alaska.edu](mailto:msturml@alaska.edu)

**From:** [Wendy Loya](#)  
**To:** [Bud Cribley](#)  
**Subject:** RE: Invitation: 1002 Coastal Plain Coordination Biweekly Meeting (MSMC) ... @ Every 2 weeks from 1pm to 2pm on Friday (EST) (bud\_cribley@fws.gov)  
**Date:** Monday, March 26, 2018 9:15:39 AM

---

Give me a call anytime today. I have a meeting at 11am but am otherwise open...  
Not much to report from last week, mostly waiting for NOI and proposals from contractors. For the contracting process, DOI extended the request for proposals by a week at the request of the contractors, so that made them due today. Regionally, FWS is working on refining the science information needs table and determining what to fund in 2018.

Hope you had a good weekend, it is gorgeous here...sunny and still great snow.  
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:** Cribley, Bud [mailto:[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)]  
**Sent:** Monday, March 26, 2018 4:54 AM  
**To:** Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)>  
**Subject:** Re: Invitation: 1002 Coastal Plain Coordination Biweekly Meeting (MSMC) ... @ Every 2 weeks from 1pm to 2pm on Friday (EST) ([bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov))

Wendy,

You invite me to a meeting and I don't have the courtesy to show up. I am sorry.

To add insult to injury; would you have time today or this week to let me know how the call went.

Thank you,

Bud

On Thu, Mar 15, 2018 at 1:52 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

[more details »](#)

**1002 Coastal Plain Coordination Biweekly Meeting (MSMC) Call in:** **b5-CIP**  
**██████████ or b5-CIP ██████████ Participant: b5-CIP (██████████)**

When Every 2 weeks from 1pm to 2pm on Friday Eastern Time

Where FWS-FW7 Mary Smith Media Center/Regional Office ([map](#))

Video call

b5-CIP

Calendar

[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)

Who

- [tauline\\_davis@fws.gov](mailto:tauline_davis@fws.gov) - creator
- [greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)
- [stephanie\\_brady@fws.gov](mailto:stephanie_brady@fws.gov)
- [carl\\_johnson@fws.gov](mailto:carl_johnson@fws.gov)
- [jenifer\\_kohout@fws.gov](mailto:jenifer_kohout@fws.gov)
- [sarena\\_selbo@fws.gov](mailto:sarena_selbo@fws.gov)
- [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)
- [sara\\_boario@fws.gov](mailto:sara_boario@fws.gov)
- [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)
- [joanna\\_fox@fws.gov](mailto:joanna_fox@fws.gov)
- [eric\\_taylor@fws.gov](mailto:eric_taylor@fws.gov)
- [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- [steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)
- [mitch\\_ellis@fws.gov](mailto:mitch_ellis@fws.gov)
- [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)
- [sarah\\_conn@fws.gov](mailto:sarah_conn@fws.gov)
- [doug\\_damberg@fws.gov](mailto:doug_damberg@fws.gov)
- Santos, Lynne
- [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)
- [amee\\_howard@fws.gov](mailto:amee_howard@fws.gov)
- [socheata\\_lor@fws.gov](mailto:socheata_lor@fws.gov)
- [drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)

Going? All events in this series: [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov) because you are subscribed for invitations on calendar [bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

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

--

**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)**

**From:** [Wendy Loya](#)  
**To:** [Cribley, Bud](#)  
**Subject:** Re: [EXTERNAL] Meeting request  
**Date:** Monday, March 26, 2018 10:18:15 AM

---

Do you want to send this to Greg Siekaniec?

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 Mar 26, 2018, at 08:00, Cribley, Bud <[bud\\_cribley@fws.gov](mailto:bud_cribley@fws.gov)> wrote:

Danielle,

Thank you for reaching out and I will follow-up to see if I can help to get a meeting set up.

Bud

On Mon, Mar 26, 2018 at 11:26 AM, <[Danielle.Chesky@international.gc.ca](mailto:Danielle.Chesky@international.gc.ca)> wrote:

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~

<image001.jpg>

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

Global Affairs Canada | Affaires mondiales Canada  
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)**

**From:** [Leonard, Paul](#)  
**To:** [Wendy Loya](#)  
**Subject:** Sturm - Snow  
**Date:** Monday, March 26, 2018 1:39:19 PM  
**Attachments:** [SnowNotesANWR\\_1002\\_Sturm.docx](#)

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

**From:** [Wendy Loya](#)  
**To:** [Drew Crane](#)  
**Subject:** RE: Update on polar beard studies?  
**Date:** Monday, March 26, 2018 1:55:39 PM

---

Thank you, that is helpful.

Safe travels,  
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:** Crane, Drew [mailto:[drew\\_crane@fws.gov](mailto:drew_crane@fws.gov)]  
**Sent:** Monday, March 26, 2018 11:52 AM  
**To:** Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>  
**Subject:** Re: Update on polar beard studies?

Hey Wendy,

I was able to check with Patrick, and he indicated that when/if money comes back on the table, they will start discussing office priorities of which some of these will likely be on the list. For now though, they aren't pursuing anything on this list nor are there any updates to the studies that he's aware of.

Let me know if you need anything else.

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

On Mon, Mar 26, 2018 at 10:38 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hey Drew,

The 1002 Arctic Refuge Resource Assessment Table is available at this link:  
<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

It can be edited, but it very important that edits are made in the Full List tab before changes are made to the short list or Refuge priorities tabs.

As POC for ES, can you either get an update from the Polar Bear team or set up a time for me to get an update to know if they plan to pursue any of the studies identified for this year? I am briefing Directors at BLM and USGS on our priority information needs table on Wednesday at 4pm. Last time, Mary joined us and that could happen again if there were significant developments, but if not, I think I could share any updates.

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:** [Rose, Joshua](#)  
**To:** [Matthew Sturm](#)  
**Cc:** [Wendy Loya](#); [Stephen Arthur](#); [Janet Jorgenson](#); [Greta Burkart](#); [Ted Swem](#); [John Trawicki](#); [Paul Leonard](#); [Steve Berendzen](#); [Joanna Fox](#)  
**Subject:** Re: [EXTERNAL] Re: Fairbanks staff: Airborne snow mapping in 1002 area next month  
**Date:** Monday, March 26, 2018 2:11:13 PM

---

Matthew,

Thanks for the update. I figured you had a handle on the new data and the aufeis was outside the scope but thought I would toss it out there just in case. I mentioned the vegetation because Janet may have specific habitats she would like data in. I have personally never used it so I would go with your assessment of whether it meets your needs.

Thanks,  
Josh

On Fri, Mar 23, 2018 at 9:57 PM, Matthew Sturm <[msturm1@alaska.edu](mailto:msturm1@alaska.edu)> wrote:  
On 3/23/18 4:04 PM, Rose, Joshua wrote:

Wendy,

Here are a few things as food for thought.

1) I am guessing that Matthew and Frank are well aware and have likely already looked at these but the Arctic DEM from the University of Minnesota (2.5 and 5m pixels) and our 5m IFSAR may be of some value for sample design. If we can extract any useful vegetation height data from the DSM's to identify areas of taller vegetation it may assist in sample stratification beyond topographic features.

Thanks Joshua. Yes....we know of and have worked with the ArcticDEM. Over what area do you have the IFSAR?

2) It may be of value to get with Janet and see if any of the sensitive habitats she has identified correspond with the current areas of interest. Collecting snow data in these areas would help us develop a better understanding of the snow depth over sensitive habitats relative to the overall snow distribution and may assist in addressing some general routing/stipulation issues that may arise.

My understanding is that there is a pretty good veg. map for the 1002 area....correct? Our mapping will run across the grain of the rivers (and riparian zones), so I suspect we will have data from areas where the snow is deep due to the veg. holding capacity.

3) If possible, identifying spring systems and areas of aufeis. Identifying these areas will assist in future sampling design, inform groundwater surface interaction models, may play a role in localized snow distributions, and could

have significant impacts on routing travel through the area. Some of this may have been done using LandSat and this is likely outside the scope of the current project but I thought I would throw it out there.

Yeah....I have interest in the afeis, but I think that this is a wholly different focus than the snow...and perhaps best approached using images from July and August when the snow is all gone, but the ice remains. Kenji Yoshikowa et al. have the most recent paper on the springs and there is some literature on this that would allow a start on the problem.

I hope this helps,

Josh

On Thu, Mar 22, 2018 at 3:02 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear colleagues,

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.

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*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?*

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Thank you in advance for your time.

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)

--

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

--

Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturm1@alaska.edu](mailto:msturm1@alaska.edu)

--

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

**From:** [Decleva, Edward](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Due 3/19 10am Arctic Refuge 1002 EIS: Request for potential author/reviewer info  
**Date:** Monday, March 26, 2018 3:30:46 PM

---

Hi Wendy,

I am sorry that this is late. I was out of the office the past three weeks.

1. Name: Edward J. DeCleva
2. Agency: U.S. Fish and Wildlife Service, Alaska Region
3. Job Title: Regional Historic Preservation Officer
4. Area of Expertise: Regional subject matter expert on National Historic Preservation Act, Archaeological Resources Protection Act, and Native American Graves Protection and Repatriation Act
5. Education: BA in Anthropology
6. Years and Type of Experience: 27 years federal employment. Several EIS's and EA's at Federal Highway Administration (as Environmental Specialist directing entire document development) and Forest Service (as Forest Archaeologist developing sections on cultural resources).

Edward J. DeCleva  
Regional Historic Preservation Officer  
U.S. Fish and Wildlife Service, Alaska Region  
1011 E Tudor Rd, MS-235  
Anchorage, AK 99503

[edward\\_decleva@fws.gov](mailto:edward_decleva@fws.gov)  
907-786-3399

On Fri, Mar 16, 2018 at 9:08 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear FWS Colleagues,

You have been identified as a potential writer and/or reviewer for the Arctic Refuge 1002 Area "Coastal Plain EIS." BLM has requested information on all DOI employees that have been identified by their agency. Please see the request below, and provide me your ½ page max

response in Word, to be forwarded to BLM Alaska and then shared upwards in DOI. Please contact me or your supervisor if you have any questions.

**Please provide a response BY 10am March 19th.**

We are in the process of developing a dedicated interdisciplinary team to support the development of the Coastal Plain Leasing EIS. Your name was given as a subject matter expert for one or more areas in the Coastal Plain Leasing EIS. So that we may ensure we are allocating our resources as efficiently as possible and pairing the correct personnel with the correct resources, please provide a short bio using the template below. Limit this to no more than one-half page.

1. Name
2. Agency
3. Job Title
4. Area of Expertise
5. Education: *any post-secondary degrees*
6. Years and type of experience: *Please include most relevant large projects you have worked on and role; and most relevant documents you have authored or published; etc.*

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:** [Jess Grunblatt](#)  
**To:** [Wendy Loya](#)  
**Subject:** [EXTERNAL] Re: Vegetation Mapping for 1002  
**Date:** Monday, March 26, 2018 3:44:58 PM

---

Wendy,  
Please call (907) 244 2435.  
Thanks,  
Jess

2018-03-26 13:16 GMT-08:00 <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)>:

--

**Jess Grunblatt**  
Research Professional  
Alaska Center for Conservation Science (ACCS)  
University of Alaska Anchorage,  
Beatrice McDonald Hall - Rm 112  
3211 Providence Dr., Anchorage, Alaska 99508  
[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
Office:(907) 786 6353  
Cell: (907) 244 2435

**From:** [Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)  
**To:** [Jess Grunblatt](#)  
**Subject:** Vegetation Mapping for 1002

---

Hi Wendy,

It would be useful to talk. This afternoon is busy. How about tomorrow morning at 9am?

Jess

On Mon, Mar 26, 2018 at 12:44 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov) <[mailto:Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> > wrote:

Hey Jess,

I need to set up a group call to talk about vegetation mapping (and possibly also hydrography and wetlands), and wanted to see if you and I could talk first so I can identify any information that might be useful to share to start that conversation. Are you around this afternoon or free any time Tuesday morning?

Thank you,

Wendy

**From:** [Google Calendar](#) on behalf of [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Vegetation Mapping for 1002  
**Attachments:** [invite.ics](#)

---

[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
has accepted this invitation.

Vegetation Mapping for 1002

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Jess

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Thank you,

Wendy

When  
Tue Mar 27, 2018 9am - 9:30am Alaska Time

Where  
Wendy call Jess (907) 786 6353 (map <[https://maps.google.com/maps?q=Wendy call Jess %28907%29 786 6353&hl en](https://maps.google.com/maps?q=Wendy+call+Jess+%28907%29+786+6353&hl=en)> )  
Video call  
<https://hangouts.google.com/join?c=1>

Calendar  
[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
Who  
• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
- organizer  
• Jess Grunblatt  
Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitation replies on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

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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>> .

**From:** [Google Calendar](#) on behalf of [jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
**Subject:** Vegetation Mapping for 1002  
**Attachments:** [invite.ics](#)

---

[jgrunbla@alaska.edu](mailto:jgrunbla@alaska.edu)  
has accepted this invitation.

Vegetation Mapping for 1002

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Jess

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Thank you,

Wendy

When  
Tue Mar 27, 2018 9am - 9:30am Alaska Time

Where  
Wendy call Jess (907) 244 2435 (map <[https://maps.google.com/maps?q=Wendy call Jess %28907%29 244 2435&hl en](https://maps.google.com/maps?q=Wendy+call+Jess+%28907%29+244+2435&hl=en)> )  
Video call



Calendar  
[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
Who  
• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
- organizer  
• Jess Grunblatt  
Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitation replies on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. Learn More <<https://support.google.com/calendar/answer/37135#forwarding>> .

**From:** [Wendy Loya](#)  
**To:** [Miriam \(Nicole\) Hayes](#); [Stephanie Brady](#); [Steve Berendzen](#); [Joanna Fox](#); [Drew Crane](#); [Nichelle \(Shelly\) Jones](#); [Serena Sweet](#); [Eric Taylor](#); [John Trawicki](#); [Tracy Fischbach](#)  
**Subject:** RE: FWS-BLM Weekly Check-in on Coastal Plain 1002  
**Date:** Tuesday, March 27, 2018 9:35:25 AM

---

Hi 1002 Team,

Today's meeting with BLM will be held at FWS in the Science Apps conference room. The call in number is on the invite. Nicole at BLM would like to talk about the MOU. Please add any additional items you would like to discuss to our rolling agenda:

[https://docs.google.com/document/d/1WV13\\_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit](https://docs.google.com/document/d/1WV13_WBiKPJBoyKtdh9GTw5AUXzJXAEZBc73RMTP8p0/edit)

Thank you,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Christopher Latty](#)  
**Subject:** Migratory bird information needs for 1002 area  
**Date:** Tuesday, March 27, 2018 10:59:40 AM

---

Hi Chris,

We would like to refine the information needs for the avian studies in the table, and figure out what to try to do this year and how to coordinate that, and what to set up for next year.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit#gid=660840084>

Do you have time to chat today or tomorrow?

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:** [Smith, Louise](#)  
**To:** [Loya, Wendy](#)  
**Subject:** Re: Question about 1002 landcover information needs  
**Date:** Tuesday, March 27, 2018 3:12:25 PM

---

Hi Wendy -

Yes, I would be very interested in taking part in the discussion. Send me the Doodle Poll and I will fill it out asap. I have worked on oil and gas issues on the North Slope for a very long time. If nothing else, I know how I would not want to move forward. :)

Thanks!

- Louise

Louise N. Smith  
Fish and Wildlife Biologist  
Planning and Conservation Branch  
Fairbanks Fish and Wildlife Field Office  
U.S. Fish and Wildlife Service  
101 12th Ave., Rm 110  
Fairbanks, AK

907-456-0306

[Louise\\_Smith@fws.gov](mailto:Louise_Smith@fws.gov)

On Tue, Mar 27, 2018 at 8:14 AM, Loya, Wendy <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Hi Louise,

I have heard your name as someone that has been working with FWS staff to understand and prepare for the 1002 area oil and gas EIS. I am serving as the FWS regional point of contact for the "Coastal Plain EIS", and also leading the science planning process for the area.

I am putting together a call to discuss needs for vegetation, National Wetlands Inventory and hydrography mapping and am wondering if you have expertise in how FWS uses those types of data to help guide us in determining what to invest in and when in the timeline for exploration to development. If so, I would like to include you in a Doodle poll to schedule a call. If you don't feel that is your area of expertise or would prefer to summarize any knowledge you have in an email or phone call, that is fine too :)

Thank you, I look forward to your feedback,  
Wendy

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

**From:** [Wendy Loya](#)  
**To:** [Steve Berendzen](#)  
**Subject:** FW: FWS-BLM Weekly Check-in on Coastal Plain 1002

---

-----Original Appointment-----

From: mnhayes@blm.gov [mailto:mnhayes@blm.gov]

Sent: None

To: mnhayes@blm.gov; wendy\_loya@fws.gov; njones@blm.gov; mdraper@blm.gov; eric\_taylor@fws.gov; steve\_berendzen@fws.gov;

john\_trawicki@fws.gov; ssweet@blm.gov; tracy\_fischbach@fws.gov; drew\_crane@fws.gov; stephanie\_brady@fws.gov; joanna\_fox@fws.gov

Subject: FWS-BLM Weekly Check-in on Coastal Plain 1002

When: Tuesday, March 27, 2018 2:00 PM-3:00 PM (UTC-09:00) Alaska.

Where: **65-CIP** participant passcode # **65-CIP** Science Application Conference Room/Regional Office

Please send any agenda topics to me by noon each Tuesday. We can have our first weekly check-in next week!

**From:** [Google Calendar](#) on behalf of [Patrick Lemons](#)  
**To:** [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov); [christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov); [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)  
**Subject:** 1002 Snow and Lidar Survey Discussion  
**Start:** Wednesday, March 28, 2018 1:00:00 PM  
**End:** Wednesday, March 28, 2018 2:00:00 PM  
**Location:** Mary's Office  
**Attachments:** [invite.ics](#)

more details » <[1002 Snow and Lidar Survey Discussion](https://www.google.com/calendar/event?action=VIEW&eid=MXNmbWp2b2k4Z2wzZTFuMDU4YmduY2xvdHYgd2VuZHI8G95YUmd3MuZ292&tok=MjJj-GF0cmJja19sZW1vbWNAZndzLmdvdmE3NDkzY2FzZjZlNjlyZjJ3NGE4MDBjMjNjNDJmN2ExZTcyYzYy&etz=America%2FAnchorage&hl=en&es=1></a>></p></div><div data-bbox=)

When  
Wed Mar 28, 2018 11am – 12pm Alaska Time  
Where  
Mary's Office (map <<https://maps.google.com/maps?q=Mary%27s+Office&hl=en>> )  
Video call

**Calendar**  
[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)  
Who  
• [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)  
- organizer  
• [christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)  
• [mary\\_colligan@fws.gov](mailto:mary_colligan@fws.gov)  
• [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Going?

Yes **1/1**

Invitation from Google Calendar <<https://www.google.com/calendar/>>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for invitations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

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**From:** [Frost, Eileen](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Clark, Karen](#)  
**Subject:** Re: Discussion re Data Needs for Coastal Plain  
**Date:** Tuesday, March 27, 2018 6:28:24 PM

---

Dear Wendy,

I looked at your earlier email with scheduling information and I let Ms. Mouritsen know you were not available Thursday; she thought we should proceed with the new schedule. Thanks so much for your response - its greatly appreciated. ~Eileen

On Tue, Mar 27, 2018 at 4:19 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Eileen,

I am not available at the rescheduled time, as I am out of the office Thursday afternoon and Friday. I am not clear on the purpose of this meeting, but would be available next week if my participation is important. I can share my calendar with you for ease of scheduling?

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 Mar 27, 2018, at 13:52, Eileen Frost <[efrost@blm.gov](mailto:efrost@blm.gov)> wrote:

This event has been changed.

Title: Discussion re Data Needs for Coastal Plain  
Rescheduled at the request of Ms. Mouritsen 3/27 1:52 pm ~E  
Scheduled at the request of Ms. Mouritsen 3/22 ~Eileen (changed)  
When: Thu Mar 29, 2018 2pm – 3pm Alaska Time (changed)  
Where: BLM-AK SD State Directors Conference Room, BLM-AK SO Bridge 4

**b5-CIP**  
Passcode **b5-CIP** (changed)

Video call: **b5-CIP**

Calendar: [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)

Who:

- \* [efrost@blm.gov](mailto:efrost@blm.gov) - organizer
- \* [adevaris@usgs.gov](mailto:adevaris@usgs.gov)
- \* [mnhayes@blm.gov](mailto:mnhayes@blm.gov)
- \* [t75murph@blm.gov](mailto:t75murph@blm.gov)
- \* [jpearce@usgs.gov](mailto:jpearce@usgs.gov)

- \* [karen\\_clark@fws.gov](mailto:karen_clark@fws.gov)
- \* [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)
- \* [lynne\\_santos@fws.gov](mailto:lynne_santos@fws.gov)
- \* [kmourits@blm.gov](mailto:kmourits@blm.gov)

Event details:

<https://www.google.com/calendar/event?action=VIEW&eid=NXBuOTkxOHFjMTlmZjZvNWV1NXJnb3VzdjYgd2VuZHIfbG95YUBmd3MuZ292&tok=MTQjZWZyb3N0QGJsbS5nb3ZjNjE3OThlZDkwNWUwOGZiZWVmNzg3Mjk0YjBlNmY2ODZjZGM1YjU2&ctz=America%2FAnchorage&hl=en&es=1>

Invitation from Google Calendar: <https://www.google.com/calendar/>

You are receiving this email at the account [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov) because you are subscribed for updated invitations on calendar [wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov).

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. Learn more at <https://support.google.com/calendar/answer/37135#forwarding>

<meeting.ics>

--

Best Regards,

Eileen A. Frost

Executive Assistant to Karen E. Mouritsen  
Acting State Director  
Bureau of Land Management  
222 W. 7th Avenue, #13  
Anchorage, AK 99513  
907-271-5080

**From:** [Matthew Sturm](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Paul Leonard](#)  
**Subject:** [EXTERNAL] Snow-free images  
**Date:** Tuesday, March 27, 2018 7:32:26 PM

---

On 3/27/18 1:24 PM, Wendy Loya wrote:

Hi Matthew,

I wanted to touch base quickly to ask about the snow free imaging that is needed to interpret the snow depth from the April capture. Do we need to seek funding or was that part of the NASA effort?

It is vague as to what NASA will cover (this was a supplemental request and I focused on capturing the snow before the melt).....so to be prudent, we should be seeking funding. Please keep in mind that we need to acquire these images as close to "bare earth" meaning we don't see the shrub canopy. So this means the narrow window between snow-off and leaf-out. We have managed to hit this reasonably well a few times. Images obtained after leaf-out tend to have a point cloud that hovers some distance off the ground.

If there is not funding for that or supplemental funding is needed for processing/analyses, I could use either bullet points or a very short narrative with cost estimate (as detailed by broad categories related to different funding recipients (ie. 1 mo salary for 2 UAF scientists, costs of flying imagery, whatever).

The following are done assuming we can get gas from the USFWS at Galbraith. If that is not the case, we have to truck gas in 55-gallon drums up the road to Toolik or Galbraith and would add several days work plus truck plus the cost of gas.

- Aircraft overflights during early-snowfree period (Larsen scientist pilot with Cessna 182): Shuttle Fbks to Galbraith, then overflights to 1002 area: \$8000
- Processing resultant images using AgiSoft and other processing software for DEM production: 20 hours of C. Larsen time: \$1750
- Development of snow depth maps using winter and summer DEM images: 30 hours of C. Parr time: \$1200
- TOTAL: \$10,950

If we need to deal with gas, I would estimate an addition: \$1500 for truck, drums and salary time (1 person).....so then the TOTAL is \$12,450

I need to check about how USFWS overhead is charged. Our normal overhead is 51%, but I think there is some agreement in place that mandates a lower over head for USFWS. Worst case cost is  $1.51 \times \$12,450 = \$18,800$

Matthew

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)

--

Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturml@alaska.edu](mailto:msturml@alaska.edu)

**From:** [Patrick Lemons](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Airborne snow mapping in 1002 area next month  
**Date:** Tuesday, March 27, 2018 7:51:06 PM

---

Totally your call. I don't know most the people on your email so wasn't sure who to invite. We have questions about the project in general so if he's handling logistics it may not be necessary. That being said, we also want to talk about potential interactions with denning bears so perhaps we could call him mid way through the conversation if things come up that you don't have the answers to.

Again your call but regardless, Mary has a conference phone we could use to call him if needed.

Sent from my iPhone

On Mar 27, 2018, at 4:12 PM, Wendy Loya <[wendy\\_loya@fws.gov](mailto:wendy_loya@fws.gov)> wrote:

Should I try to get Frank Urban on the phone who would be doing the ground survey? I have a general sense of their plan, that may be sufficient.

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 Mar 27, 2018, at 15:13, Lemons, Patrick <[patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)> wrote:

Hi Wendy,

I just sent you an invite for a discussion tomorrow about this. We'd like to get some more information on these projects and discuss potential conflicts with denning bears. I've invited Christopher Putnam our Regulatory Lead and Mary to the meeting as well. Mary's office has room for the 4 of us so we can meet there. If this doesn't work for you, please let me know. It looked like you were out Thursday and Friday so I was trying to squeeze something in before next week.

Cheers,  
Patirek

On Thu, Mar 22, 2018 at 2:56 PM, Wendy Loya  
<[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

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)

--

Patrick Lemons, Ph.D.  
Chief, Marine Mammals Management  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503

0000007707

Work: 907-786-3668  
Cell: 907-717-6787  
Fax: 907-786-3816  
e-mail: [patrick\\_lemons@fws.gov](mailto:patrick_lemons@fws.gov)

**From:** [Wendy Loya](#)  
**To:** [Patrick Lemons](#)  
**Subject:** Accepted: 1002 Snow and Lidar Survey Discussion  
**Start:** Wednesday, March 28, 2018 1:00:00 PM  
**End:** Wednesday, March 28, 2018 2:00:00 PM  
**Location:** Mary's Office

---

**From:** [Wendy Loya](#)  
**To:** [Karen Clark](#); [Greg Siekaniec](#); [Mitch Ellis](#); [Mary Colligan](#); [Eric Taylor](#); [Sarena Selbo](#)  
**Subject:** Evolving List of Information needs for the Arctic Refuge Coastal Plain 1002 area from FWS  
**Date:** Wednesday, March 28, 2018 11:48:04 AM

---

Dear FWS Colleagues,

The FWS Alaska continues to work on refining the list of information needs for the 1002 area, and the lists are available for viewing at the link below. It is titled: [1002 Arctic Refuge Resource Assessment Table Evolving "Frankensheet"](#). BLM and USGS Points of Contact for 1002 area have been asked to share it with their staff and directors.

These spreadsheets are a work in progress (DRAFT), being revised as our understanding of oil exploration, leasing and development increases, as well as our understanding of the information needed to evaluate those activities increases. Studies may be added, changed or removed over time. Notes about how studies might be conducted, who potential partners might be or other information does not reflect a commitment by those agencies, including the FWS if studies included here are the responsibility of another agency. [Please start with the Documentation page for a description of the workbook contents.](#)

PLEASE REFRESH THE LINK/[REPRINT](#) BEFORE USING THIS WORKBOOK, AS IT IS CHANGING FREQUENTLY

If you would like editing access, please contact me and I will provide that.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

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:** [Johnson, Carl](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: FW: Evolving List of Information needs for the Arctic Refuge Coastal Plain 1002 area from FWS  
**Date:** Wednesday, March 28, 2018 12:31:17 PM

---

Thanks, Wendy. I will share it with him. I would suspect Gene is likely familiar with the Resource Assessment process, as he is a former Refuge Manager (Yukon Delta) and probably had to do it at some point in time. He may have actually been the manager there when the NEPA process started for Donlin.

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

Like us on [Facebook!](#)

On Wed, Mar 28, 2018 at 10:20 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Carl,

I want to share the priority information needs workbook that FWS staff have been working on over the past 2 months with OSM and Gene, and am wondering if you would be able to facilitate that since you are the most familiar with the process from your time acting with Refuges? I am not sure if he is aware of the Resource Assessment process, and having that context might help. There isn't anything in the workbook that commits OSM staff to work, but there may be projects that OSM staff might want to be engaged with where subsistence needs are identified. Also, if you can update him that we provided bios for you and Josh as potential writers/reviewers for the EIS per concurrence by Tom, and we are waiting to hear back from BLM on how they will proceed overall with the EIS writing process.

If OSM wanted to identify a point of contact to be the direct recipient of information that goes out to the region (John T is for Refuges, Drew Crane for FES, Eric Taylor for Mig Birds), let me know who that might be and I can start to include them in regional correspondence.

Thank you, let me know how I can further facilitate engagement of OSM.

Sincerely,

Wendy

Here is the email I sent to other members of the RDT today:

Dear FWS Colleagues,

The FWS Alaska continues to work on refining the list of information needs for the 1002 area, and the lists are available for viewing at the link below. It is titled: [1002 Arctic Refuge Resource Assessment Table Evolving "Frankensheet"](#). BLM and USGS Points of Contact for 1002 area have been asked to share it with their staff and directors.

These spreadsheets are a work in progress (DRAFT), being revised as our understanding of oil exploration, leasing and development increases, as well as our understanding of the information needed to evaluate those activities increases. Studies may be added, changed or removed over time. Notes about how studies might be conducted, who potential partners might be or other information does not reflect a commitment by those agencies, including the FWS if studies included here are the responsibility of another agency. [Please start with the Documentation page for a description of the workbook contents.](#)

PLEASE REFRESH THE LINK/REPRINT BEFORE USING THIS WORKBOOK, AS IT IS CHANGING FREQUENTLY

If you would like editing access, please contact me and I will provide that.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

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:** [Santos, Lynne](#)  
**Bcc:** [fw7allusers-dynamic@fws.gov](mailto:fw7allusers-dynamic@fws.gov)  
**Subject:** RDT Notes 3-26-18 Have a Happy Easter It has been nice working with you! Lynne  
**Date:** Wednesday, March 28, 2018 12:39:17 PM  
**Attachments:** [RDT Notes 3-26-18.pdf](#)

---

**Region 7 - Alaska Budget and Administration**

**Vision:** We Give the Mission Life!

**Mission:** We strategically partner to provide efficient, effective, and professional support

*Lynne Santos  
FOIA Officer & Administrative Specialist  
1011 E. Tudor Road MS 374  
Anchorage, Alaska 99503  
Tel 907-786-3544  
Fax 907-786-3306*

*“Don't find fault, find a remedy; anybody can complain” - Henry Ford  
“Common sense is genius dressed in its working clothes” -Ralph Waldo Emerson*

**From:** [Pearce, John](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Nicole Hayes](#)  
**Subject:** Re: Evolving List of Information needs for the Arctic Refuge Coastal Plain 1002 area from FWS  
**Date:** Wednesday, March 28, 2018 12:48:28 PM

---

Thanks for sharing this Wendy. I have just one comment below:

On the Refuge Priorities tab in cell M9, it says, " May be funded through tribal wildlife grant." That column M is for the USGS response and I don't have a record of entering that text for USGS. Maybe that text belongs in cell N9?

Thanks again and see you all tomorrow.

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, Mar 28, 2018 at 9:40 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Nicole and John,

Can you please share upward, especially in preparation for tomorrow's meeting hosted by BLM?

Thank you...Wendy

Dear DOI Colleagues,

The FWS Alaska continues to work on refining the list of information needs for the 1002 area, and the lists are available for viewing at the link below. It is titled: 1002 Arctic Refuge Resource Assessment Table Evolving "Frankensheet"

These spreadsheets are a work in progress (DRAFT), being revised as our understanding of oil exploration, leasing and development increases, as well as our understanding of the information needed to evaluate those activities increases. Studies may be added, changed or removed over time. Notes about how studies might be conducted, who potential partners might be or other information does not reflect a commitment by those agencies, including the FWS if studies included here are the responsibility of another agency.

PLEASE REFRESH THE LINK BEFORE USING THIS WORKBOOK, AS IT IS CHANGING FREQUENTLY

If you would like editing access, please contact me and I will provide that.

<https://docs.google.com/spreadsheets/d/1q3C0tmgDjmYoZjIS2FEg4ulZd4ye0CObCsCmknPMEXs/edit?usp=sharing>

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:** [Crystal Leonetti](#)  
**To:** [Wendy Loya](#)  
**Subject:** Re: Consultation with Tribes, Corporations on 1002  
**Date:** Thursday, March 29, 2018 10:52:38 AM

---

Of course! I'm available this morning...

Sent from my iPhone

On Mar 28, 2018, at 9:17 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Crystal,

Can we chat about this when you have a chance?

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)

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

**From:** **Leonetti, Crystal** <[crystal\\_leonetti@fws.gov](mailto:crystal_leonetti@fws.gov)>  
**Date:** Tue, Mar 20, 2018 at 10:03 AM  
**Subject:** Consultation with Tribes, Corporations on 1002  
**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>  
**Cc:** Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

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 (Cūsquq) Leonetti, Yupik*  
Alaska Native Affairs Specialist  
Alaska Region - R7 External Affairs **tEAm**  
U.S. Fish & Wildlife Service  
[1011 E. Tudor Road](#)  
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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)

--  
Ted A Murphy  
Alaska-Associate State Director  
907-271-5076

**From:** [Burkart, Greta](#)  
**To:** [Matthew Sturm](#)  
**Cc:** [Wendy Loya](#); [Stephen Arthur](#); [Paul Leonard](#); [Joanna Fox](#); [Steve Berendzen](#)  
**Subject:** Re: [EXTERNAL] Re: Fairbanks staff: Airborne snow mapping in 1002 area next month  
**Date:** Thursday, March 29, 2018 12:44:47 PM

---

Hi Matthew,

I am forwarding your request on to Refuge managers to request approval for use of approximately 200 gallons of aviation fuel from our Galbraith Lake facility.

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
101 12 th Ave Rm 236  
Fairbanks, AK 99701  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Thu, Mar 29, 2018 at 9:43 AM, Matthew Sturm <[msturm1@alaska.edu](mailto:msturm1@alaska.edu)> wrote:

Hi Greta:

I would like to request logistical support from the USFWS in the form of aviation fuel from the Galbraith airstrip and facility. We anticipate using about 200 gallons of fuel for aerial photogrammetry in and around the Arctic Refuge for the purpose of mapping the snow pack. Similar work using USFWS fuel has been done in 2014, 2015, and 2017.

We appreciate the assistance.

Matthew Sturm

On 3/28/18 4:35 PM, Burkart, Greta wrote:

Hi Matthew,

Can you send the Refuge a formal request for using US Fish and Wildlife Service fuel? Is the estimated amount needed 200 gallons from Galbraith only?

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
[101 12 th Ave Rm 236](#)  
[Fairbanks, AK 99701](#)  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Sun, Mar 25, 2018 at 6:49 AM, Burkart, Greta <[greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)> wrote:

Hi Matthew,

We are most interested in estimating snowmelt recharge from isolated lakes that recharge from small watersheds (within a few km of the lake) as this information would help identify which lakes are most vulnerable to water withdrawal. In general these lakes do not have fish so they do not have protective stipulations, but they are important to shorebirds and unique aquatic invertebrate communities.

We have not assessed the lake recharge areas with the new DEMs from IFSAR (now available for the entire 1002 area), so we don't know the watershed area of all lakes, but I think this will be a high priority in the future.

Thanks,

Greta

Greta Burkart, PhD  
Aquatic Ecologist  
US Fish and Wildlife Service  
Arctic National Wildlife Refuge and Alaska Refuges Inventory and Monitoring Program  
[101 12 th Ave Rm 236](#)  
[Fairbanks, AK 99701](#)  
ph: (907) 456-0519  
fax: (907) 456-0428  
email: [greta\\_burkart@fws.gov](mailto:greta_burkart@fws.gov)  
[www.facebook.com/arcticnationalwildliferefuge](http://www.facebook.com/arcticnationalwildliferefuge)

On Fri, Mar 23, 2018 at 9:57 PM, Matthew Sturm <[msturm1@alaska.edu](mailto:msturm1@alaska.edu)> wrote:

On 3/23/18 4:04 PM, Rose, Joshua wrote:

Wendy,

Here are a few things as food for thought.

1) I am guessing that Matthew and Frank are well aware and have likely already looked at these but the Arctic DEM from the University of Minnesota (2.5 and 5m pixels) and our 5m IFSAR may be of some value for sample design. If we can extract any useful vegetation height data from the DSM's to identify areas of taller vegetation it may assist in sample stratification beyond topographic features.

Thanks Joshua. Yes....we know of and have worked with the ArcticDEM. Over what area do you have the IFSAR?

2) It may be of value to get with Janet and see if any of the sensitive habitats she has identified correspond with the current areas of interest. Collecting snow data in these areas would help us develop a better understanding of the snow depth over sensitive habitats relative to the overall snow distribution and may assist in addressing some general routing/stipulation issues that may arise.

My understanding is that there is a pretty good veg. map for the 1002 area....correct? Our mapping will run across the grain of the rivers (and riparian zones), so I suspect we will have data from areas where the snow is deep due to the veg. holding capacity.

3) If possible, identifying spring systems and areas of aufeis. Identifying these areas will assist in future sampling design, inform groundwater surface interaction models, may play a role in localized snow distributions, and could have significant impacts on routing travel through the area. Some of this may have been done using LandSat and this is likely outside the scope of the current project but I thought I would throw it out there.

Yeah....I have interest in the aufeis, but I think that this is a wholly different focus than the snow...and perhaps best approached using images from July and August when the snow is all gone, but the ice remains. Kenji Yoshikowa et al. have the most recent paper on the springs and there is some literature on this that would allow a start on the problem.

I hope this helps,

Josh

On Thu, Mar 22, 2018 at 3:02 PM, Wendy Loya

<[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Dear colleagues,

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 on the coastal plain. I understand that early winter snow depth is potentially more relevant to opening an area to winter tundra travel, but I do hope that this information will help us understand general snow depth/redistribution patterns associated with topography. We are also consulting with polar bear researchers for other insights into terrain variation that could affect snow depth for polar bear denning habitat.

Thank you in advance for your time.

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)

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--

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

[Fairbanks, AK 99701](#)  
phone: (907) 456-0409

--  
Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturm1@alaska.edu](mailto:msturm1@alaska.edu)

--  
Dr. Matthew Sturm  
Geophysical Institute  
University of Alaska-Fairbanks  
907-474-5257  
[msturm1@alaska.edu](mailto:msturm1@alaska.edu)

**From:** [Bradley, Joshua](#)  
**To:** [Leonard, Paul](#)  
**Cc:** [Wendy Loya](#)  
**Subject:** Re: Week of April 9th ?  
**Date:** Thursday, March 29, 2018 1:02:00 PM

---

Hi,

That week is fine for me, besides some regularly scheduled meetings. I do have a presentation to prepare for that Wed., and will probably need to spend some time meeting with Laura to work on the Canning stuff.

=====  
Joshua Bradley  
Data Manager, Science Applications  
U.S. Fish and Wildlife Service  
101 12th Avenue, Room 216  
Fairbanks, Alaska 99701  
907.455.1847 (office)  
907.519.9370 (cell)  
<https://www.mdeditor.org/>  
=====

On Wed, Mar 28, 2018 at 5:06 PM, Leonard, Paul <[paul\\_leonard@fws.gov](mailto:paul_leonard@fws.gov)> wrote:

Week of April 9th works for me. I should mention that the USGS Coop wrap up and retirement activities will be that week (I'm assuming you can do both?). I think Sarena is coming in for that.

My plan for Gunsight mountain will probably be Sat/Sun 14/15 and then be in ANC for our meeting on the 16th. Still working out details.

As far as tying into the prospectus to 1002 - I think there are a couple of great pilot projects we have either initiated or have held discussions. I'd welcome the three of us sitting down to try and hash out more specifics and bringing in a few other folks to discuss.

Cheers,  
Paul

On Wed, Mar 28, 2018 at 3:54 PM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hey Guys,

I am thinking of coming up the week of April 9<sup>th</sup> for a conversation about Science Applications future from the perspective of your Prospectus, coming up with possibly a more specific plan on how to apply it to the 1002 program. It would be timely before the meeting the following week, as I think if we can bring a more tangible example, I know I can make a stronger argument for OSA. Other option could be for a couple of days next

week.

We can also do interim performance evals then, discuss the website, address any straggling PTSD issues, etc.

Paul, I think you were planning to take off at the end of the week for Raptor surveys, but I think we could get a lot done M-Weds or Thurs

Let me know your thoughts,

Wendy

Dr. Wendy M. Loya, Coordinator

Office of Science Applications -Arctic Program

US Fish and Wildlife Service

Anchorage, Alaska

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907.277.2942 (mobile)

--

Paul Leonard, PhD

Science Coordinator

[Arctic LCC](#)

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

[Fairbanks, AK 99701](#)

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

**From:** [Leonetti, Crystal](#)  
**To:** [Wendy Loya](#)  
**Cc:** [Steve Berendzen](#); [Hollis Twitchell](#); [Nicole Hayes](#)  
**Subject:** Re: Request for updated list of communities for consultation  
**Date:** Thursday, March 29, 2018 1:22:56 PM

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Wendy,

I actually sent Greg a separate list. I'm sorry I didn't notice that when we talked this morning. Let me forward all of you the email that Greg then forwarded to Steve Wackowski. It has a more comprehensive list and a little more detail. Please use that email, and I think it will satisfy Hollis' recommendation as well.

Crystal

On Thu, Mar 29, 2018 at 10:32 AM, Wendy Loya <[Wendy\\_loya@fws.gov](mailto:Wendy_loya@fws.gov)> wrote:

Hi Hollis and Steve,

Would you please send Crystal a list of communities that you recommend receive invitations for Government to Government consultation regarding the Coastal Plain EIS? Her original recommendation accidentally omitted Chalkyitsik, and I believe you mentioned that tribal organizations for Venetie and Arctic Village needed clarification and that there were other communities you might recommend. She can then prepare an updated request to share with Greg for forwarding to BLM.

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)

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

**From:** **Leonetti, Crystal** <[crystal\\_leonetti@fws.gov](mailto:crystal_leonetti@fws.gov)>

**Date:** Tue, Mar 20, 2018 at 10:03 AM

**Subject:** Consultation with Tribes, Corporations on 1002

**To:** Gregory Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>

0000007727

Cc: Steve Berendzen <[steve\\_berendzen@fws.gov](mailto:steve_berendzen@fws.gov)>

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](#)

--

*Crystal (C̄isquq) Leonetti, Yupik*

Alaska Native Affairs Specialist

Alaska Region - R7 External Affairs **teAm**

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Anchorage, AK 99503

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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)

**From:** [Hayes, Miriam \(Nicole\)](#)  
**To:** [Wendy Loya](#); [Stephanie Brady](#); [Tracy Fischbach](#)  
**Subject:** Re: Refresh my memory please...  
**Date:** Thursday, March 29, 2018 3:45:41 PM

---

Please disregard my message. Look with my eyes and not with my mouth as the old adage goes....I found it!

**Nicole Hayes**

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

On Thu, Mar 29, 2018 at 10:51 AM, Hayes, Miriam (Nicole) <[mnhayes@blm.gov](mailto:mnhayes@blm.gov)> wrote:

How many comments were received on the CCP - during scoping and the DEIS public comment phase? And perhaps Izembek may be another large comparable?

**Nicole Hayes**

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

**From:** [Matthew Sturm](#)  
**To:** [Wendy Loya](#)  
**Subject:** [EXTERNAL] Re: Nsidc  
**Date:** Thursday, March 29, 2018 11:46:40 PM  
**Attachments:** [NearToolikSnowDepth.jpg](#)  
[Clifford2010.pdf](#)  
[Got\\_SnowSM.pdf](#)

---

On 3/29/18 3:01 PM, Wendy Loya wrote:

USGS is saying that nsidc aircraft data is sufficient for monitoring snow depth.  
Do you know the accuracy of these projects?

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)

Dear Wendy:

What NSIDC aircraft data? Do you mean IceBridge? To my knowledge the only time IceBridge agreed to use the snow radar over land was when we worked with them in 2014 and that was on the line from Kaktovik to Niguanuk, and those data were never processed. Here is the Icebridge data site: search on snow.....nothing there for 1002 that I can find...certainly nothing recent. See [https://nsidc.org/data/icebridge/data\\_summaries.html#lidar](https://nsidc.org/data/icebridge/data_summaries.html#lidar)

So perhaps they meant satellite data, and the accuracy of the satellite products and it is poor. think the claim made to you is absurd, made by someone either who does not understand the products or the *management need* to manage the 1002 area, or worse, is purposely trying to mislead you. The excerpts below are from the NSIDC website for snow. Both products they have are derived from passive microwave remote sensing and both have a minimum pixel size of 25 by 25 kilometers.

The issues in passive microwave snow products are:

1) a vast pixel size in a snow cover that varies in depth and SWE in distances of just a hundred meters. I attach our recent (2017) SfM mapping of snow depth near Toolik last year (terrain similar to the 1002); you can see these gradients in depth over very short distances. Now imagine that this whole map (which is actually 1/25th of the area of the NSIDC products) is a single color...say green. What possible management or route decisions could you make from that?

2) Saturation with depth hoar: Passive microwave signals "saturate" once there is 25 cm of depth hoar....and about 50 cm of normal snow. That means we get the same signal for 25 cm of depth hoar as 50 or 75 or 100 cm...no difference at all. This issue is well known...well publicized. So once the snow hits a minimum snow depth the sensor cannot tell us any more. How much depth hoar is there up North right now in the area or nearby: about 30 cm based on our field measurements from last week.

3) Difficulties beyond depth hoar: The algorithm (Al Chang's) used to convert brightness temperature to SWE is quite simplistic (works like NDVI) and as such cannot account for normal issues that change snow like rain-on-snow icing, new snow and so on. A number of studies (generally looking at passive microwave snow SWE assimilation) have found the performance of the models to be degraded vs. just running the model alone with out the remote sensing data...which doesn't say much about the quality of the remote sensing product . I attach Clifford's recent review article on the topic: given that Clifford is English, and uses polite diplomatic language...she is quite critical of these products, and makes it clear they are of value only when dealing with regional and GCM-scale models.

So the real question is this: **it seems like someone is trying to blow you off. Why?**

Oh.... my bona fides to speak about snow remote sensing data:

1. I am the founding chair of iSWGR (<http://depts.washington.edu/iswgr/>) and chaired the organization for 5 years (till 2016). This is the official community advisory group on the topic of snow remote sensing to NASA.

2.) I am the lead author of the snow communities response to NASA decadal survey in the area of snow, and the author lead attached NASA document "Got Snow?", which includes my co-author Mark Serreze, director of NSIDC.

3.) I have been working on Arctic snow since 1983, and I have published half a dozen articles on snow remote sensing.

4.) I am the lead on two NASA snow remote sensing grants right now, and routinely advise NASA on review panels.

Matthew

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From the NSIDC website

Northern Hemisphere EASE-Grid 2.0 Weekly Snow Cover and Sea Ice Extent, Version 4

This data set is generated from brightness temperature data derived from the following sensors: SMMR, DMSP -F8, -F11 and -F13, SSM/Is, and SSMIS [all passive microwave products]. The data are provided in the polar stereographic projection at a grid cell size of 25 x 25 km [consider how much variability in snow depth exists in this size pixel]. This product is designed to provide a consistent time series of sea ice concentrations, the fraction or percentage of ocean area covered by sea ice, spanning the coverage of several passive microwave instruments.

**Global Monthly EASE-Grid Snow Water Equivalent Climatology, Version 1**

This data set comprises global, monthly satellite-derived Snow Water Equivalent (SWE) climatologies from November 1978 through May 2007, with periodic updates released as resources permit. Global data are gridded to the Northern and Southern 25 km Equal-Area Scalable Earth Grids (EASE-Grids). Global snow water equivalent is derived from Scanning Multichannel Microwave Radiometer (SMMR) and selected Special Sensor

Microwave/Imagers (SSM/I). Northern Hemisphere data are enhanced with snow cover frequencies derived from the Northern Hemisphere EASE-Grid Weekly Snow Cover and Sea Ice Extent Version 2 data (these data were not produced for the Southern Hemisphere). These data are suitable for continental-scale time-series studies of snow cover and water equivalent. The data are binary data files and PNG images, and are available via FTP.

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