

# **Label: "FOIA ANWR"**

**Created by:whwerkhe@usgs.gov**

Total Messages in label:196 (60 conversations)

Created: 06-27-2018 at 12:36 PM

# Conversation Contents

**Re: Polar bear den habitat in 1002**

**Attachments:**

/60. Re: Polar bear den habitat in 1002/1.1 Durner\_etal\_2006.pdf

/60. Re: Polar bear den habitat in 1002/1.2 polarbear\_maternal\_denning\_habitat\_in\_the\_ANWR1002\_area\_21Dec17.pdf

**"Devaris, Aimee" <adevaris@usgs.gov>**

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**From:** "Devaris, Aimee" <adevaris@usgs.gov>  
**Sent:** Thu Dec 21 2017 19:23:02 GMT-0700 (MST)  
**To:** "Wackowski, Stephen" <stephen\_wackowski@ios.doi.gov>  
Jason Larrabee <jason\_larrabee@ios.doi.gov>, Greg Siekaniec <greg\_siekaniec@fws.gov>, "Travnicek, Andrea" <andrea\_travnicek@ios.doi.gov>, William Werkheiser <whwerkhe@usgs.gov>, "Applegate, David" <applegate@usgs.gov>, "Kinsinger, Anne" <akinsinger@usgs.gov>, Christian Zimmerman <czimmerman@usgs.gov>  
**CC:**  
**Subject:** Re: Polar bear den habitat in 1002  
**Attachments:** Durner\_etal\_2006.pdf polarbear\_maternal\_denning\_habitat\_in\_the\_ANWR1002\_area\_21Dec17.pdf

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**From:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
**Sent:** Fri Dec 22 2017 08:15:13 GMT-0700 (MST)  
**To:** "Devaris, Aimee" <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>, Christopher Putnam <[christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)>  
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**From:** Aimee Devaris <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)>  
**Sent:** Fri Dec 22 2017 09:58:06 GMT-0700 (MST)  
**To:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
Christopher Putnam <[christopher\\_putnam@fws.gov](mailto:christopher_putnam@fws.gov)>, Jason Larrabee <[jason\\_larrabee@ios.doi.gov](mailto:jason_larrabee@ios.doi.gov)>, Greg Siekaniec <[greg\\_siekaniec@fws.gov](mailto:greg_siekaniec@fws.gov)>, "Travnicek, Andrea" <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)>, William Werkheiser <[whwerkhe@usgs.gov](mailto:whwerkhe@usgs.gov)>, "Applegate, David" <[applegate@usgs.gov](mailto:applegate@usgs.gov)>, "Kinsinger, Anne" <[akinsinger@usgs.gov](mailto:akinsinger@usgs.gov)>, Christian Zimmerman <[czimmerman@usgs.gov](mailto:czimmerman@usgs.gov)>, Joseph Balash <[joseph\\_balash@ios.doi.gov](mailto:joseph_balash@ios.doi.gov)>  
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**"Wackowski, Stephen" <stephen\_wackowski@ios.doi.gov>**

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**Sent:** Fri Dec 22 2017 10:00:28 GMT-0700 (MST)  
**To:** Aimee Devaris <adevaris@usgs.gov>  
Christopher Putnam <christopher\_putnam@fws.gov>, Jason Larrabee <jason\_larrabee@ios.doi.gov>, Greg Siekaniec <greg\_siekaniec@fws.gov>, "Travnicek, Andrea" <andrea\_travnicek@ios.doi.gov>, William Werkheiser <whwerkhe@usgs.gov>, "Applegate, David" <applegate@usgs.gov>, "Kinsinger, Anne" <akinsinger@usgs.gov>, Christian Zimmerman <czimmerman@usgs.gov>, Joseph Balash <joseph\_balash@ios.doi.gov>  
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**Sent:** Fri Dec 22 2017 10:20:32 GMT-0700 (MST)  
**To:** "Wackowski, Stephen" <[stephen\\_wackowski@ios.doi.gov](mailto:stephen_wackowski@ios.doi.gov)>  
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**Subject:** Re: Polar bear den habitat in 1002

Steve,

I believe your intent and understanding is correct regarding information we will need for polar bear associated surface and seismic exploration prior to lease sales.

Our polar bear team here in the Service is reaching out to USGS and other experts to determine how to best complete and provide the information that will assist in planning and permitting with current data so we can avoid challenges to scientific understanding.

The message was very clear yesterday from the principle Deputy Assistant Secretary that the Department anticipated data collection to be a top priority concerning the status of polar bear. We are working to get the requested plan together.

I trust your travels have you back in Alaska and look forward to conversations around this and other implications of the recent legislation.

Best,

Greg

Sent from my iPhone

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**From:** [Lukas, William](#)  
**To:** [William Werkheiser](#); [David Applegate](#); [Judy Nowakowski](#); [Joanne Taylor](#)  
**Subject:** 2018 Briefing Paper Index - JANUARY  
**Date:** Wednesday, January 31, 2018 1:17:13 PM  
**Attachments:** [2018 USGS Briefing Papers Index.pdf](#)

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Attached is the January edition of the **USGS Briefing Paper Index for 2018**. Note that this is maintained on Google Drive, so you can access it [here](#) anytime. PDF also attached.

All of our briefing papers can also be found on Google Drive ([Briefing Papers](#))

Please let me know if you feel something is missing.

Thanks.



Bill Lukas | 202-208-4457  
USGS Liaison to Water & Science  
[asws\\_liaison@usgs.gov](mailto:asws_liaison@usgs.gov)

## 2018 USGS Briefing Papers Index

#	DCN	Due Date	Subject	Synopsis
1	GS18000454	01/31/2018	Paper to be published about factors that affect humpback chub in the Grand Canyon	The purpose of this brief is to inform the Department of the Interior's (DOI) Assistant Secretary for Water and Science about the findings of a study titled, "Inferring species interactions through joint mark-recapture analysis." The paper has been accepted by the journal Ecology, and is expected to be published soon. Three of the four authors, including the lead author, are USGS scientists. No news release or briefings with other parties are planned at this time, but social media is planned.
2	GS18000456	01/31/2018	Testing and adaptation of Chinese "Unified Method" of carp capture to U.S. waters ? Creve Coeur Lake, Missouri	This briefing memorandum is submitted to inform the Assistant Secretary for Water and Science about an experimental project to remove Asian carp from the Creve Coeur Lake, in Missouri, a backwater scour lake in suburban St. Louis. Adapting the "Unified Method" approach used for carp harvest in Chinese waters, the project will start this week and continue into February. Project activities will be viewable by the public and/or media entities, but because of safety concerns and the potential distr
3	GS18000455	01/31/2018	Paper to be published about potential effects of warming on temperate and tropical forests	The purpose of this brief is to inform the Department of the Interior's Assistant Secretary for Water and Science about the findings of a study titled, "Temperate and tropical forest canopies are already functioning beyond their thermal thresholds for photosynthesis." This study has been accepted for publication by the journal Forests and is expected to be available any day now. Sasha Reed, the only USGS author, is the second author of the paper. There is also a USDA co-author. None of the ins
4	GS18000453	01/26/2018	U.S. Geological Survey hydrologic monitoring of potential impacts from geothermal development near Mammoth Lakes, California.	This briefing paper provides information on U.S. Geological Survey (USGS) hydrologic monitoring to assess potential impacts from geothermal development near Mammoth Lakes, California.
5	GS18000452	01/26/2018	2018 Mineral Commodity Summaries	The Mineral Commodity Summaries published annually by the USGS is the earliest report on the supply, demand, and consumption of non-fuel mineral commodities for the prior year. The 2018 Mineral Commodity Summaries volume is scheduled for release on January 31, 2018.
6	GS18000450	01/19/2018	Bibliography of USGS Research in the ANWR 1002 Area and NPRA	Bibliography of USGS Research Conducted in the Arctic National Wildlife Refuge (ANWR) 1002 Area and/or the National Petroleum Reserve ? Alaska (NPRA) as of 1/18/2018
7	GS18000451	01/19/2018	New USGS Scientific Investigations Report (SIR) ? Simulated Hydrologic Response to Climate Change during the 21st century in New Hampshire	The purpose of this memo is to provide information to the Office of the Assistant Secretary for Water and Science on the U.S. Geological Survey (USGS) SIR on the simulated hydrologic response to climate change during the 21st century in New Hampshire. The SIR is expected to be published this week. A local news release is planned.
8	GS18000447	01/18/2018	New USGS publication highlights mineral import dependency for gear used by U.S. Navy SEALs	In late January, USGS plans to release a General Information Product (GIP), "Globally sourced mineral commodities used in U.S. Navy SEAL gear: an illustration of U.S. net import reliance?."

## 2018 USGS Briefing Papers Index

#	DCN	Due Date	Subject	Synopsis
9	GS18000448	01/18/2018	DECISION MEMO: Unmanned Aircraft Systems: Activities and Opportunities	STATEMENT OF ISSUE: The Department of the Interior (DOI) is exploring opportunities for more efficient and effective ways to collect data over the Nation's lands. The DOI, through the USGS, has been a leader in the investigation and application of small Unmanned Aircraft Systems (UAS) to collect better data at reduced costs and risks for purposes that include mapping, monitoring, and modeling the Nation's resources (e.g., minerals and wildlife) and hazards (e.g., landslides and wildfires).  The purpose of this memo is to provide information to the Office of the Assistant Secretary for Water and Science on U.S. Geological Survey (USGS) research on polycyclic aromatic hydrocarbons (PAHs), coal-tar-based pavement sealcoat, and implications for the environment and human health.
10	GS18000449	01/18/2018	U.S. Geological Survey research on polycyclic aromatic hydrocarbons and coal-tar-based pavement sealcoat	
11	GS18000446	01/17/2018	New USGS Open-File Report (OFR) Summarizing Wildlife-related Research in the 1002 Area from 2002-2017	This memorandum informs the Office of the Assistant Secretary for Water and Science about an upcoming USGS OFR that summarizes wildlife-related science conducted in the 1002 Area of the Arctic National Wildlife Refuge (ANWR) from 2002-2017.
12	GS18000445	01/16/2018	New USGS Study ? Three decades of denning behavior and reproductive success of the polar bear	This memorandum alerts the Office of the Assistant Secretary for Water and Science to a new U.S. Geological Survey (USGS) study published online January 11, 2018 in the Journal of Mammalogy. The study examines the relation between polar bear denning behavior, reproductive success of polar bears, and environmental factors over three decades in the Chukchi and southern Beaufort Sea. Authors are scientists with the USGS Alaska Science Center; Brigham Young University, University of Washington, an
13	GS18000444	01/12/2018	Sage Grouse ? Draft Annotated Bibliography and Synthesis and Management Implications Report	The purpose of this memorandum is to provide some background to the Department of the Interior about the subject bibliography and report. The Bureau of Land Management has requested a briefing on January 16th to inform time-sensitive land-use planning decisions prior to the January 24th Sage-grouse Task Force Meeting. Note that a previous memo regarding this effort was provided in early December.
14	GS18000376	01/11/2018	USGS Collaboration on Deploying Underwater Sound Technology	USGS is Collaborating with the U.S. Army Corps of Engineers and others on Deploying Underwater Sound Technology in the Chicago Area Waterway System as an Asian Carp Deterrent, beginning in February 2018.
15	GS18000374	01/03/2018	Critical Minerals ? USGS Response to Secretarial Order 3359, ? Critical Mineral Independence and Security?	

**From:** [Walter Guidroz](#)  
**To:** [William Werkheiser](#); [David Applegate](#); [Judy Nowakowski](#)  
**Cc:** [Geoffrey Plumlee](#); [David Diamond](#); [Sarah Ryker](#); [Houseknecht, David](#)  
**Subject:** Bernhardt questions re [REDACTED]  
**Date:** Wednesday, February 21, 2018 2:49:24 PM  
**Attachments:** [Bernhardt questions re \[REDACTED\].docx](#)

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Dave A,

I took your notes on the questions raised from today's meeting with DepSec Bernhardt and drafted them into a document, the answers for which Dave Houseknecht worked on diligently while in Texas. I've also added a few tidbits but hopefully this addresses the main elements sought by the DepSec in his meeting today. Please let us know if we've missed anything or if any additional info is required. Thanks...

Walter

(b) (5)

(b) (5)

(b) (5)

**From:** [Applegate, David](#)  
**To:** [Timothy Petty](#)  
**Cc:** [Andrea Travnicek](#); [Lukas, William](#); [Rae, Kerry](#); [William Werkheiser](#); [Judy Nowakowski](#); [Joanne Taylor](#)  
**Subject:** Q&A and options for Deputy Secretary on 1002 area  
**Date:** Tuesday, February 27, 2018 3:03:17 PM  
**Attachments:** [Dep Sec questions on ANWR \(b\) \(5\) \[REDACTED\].docx](#)

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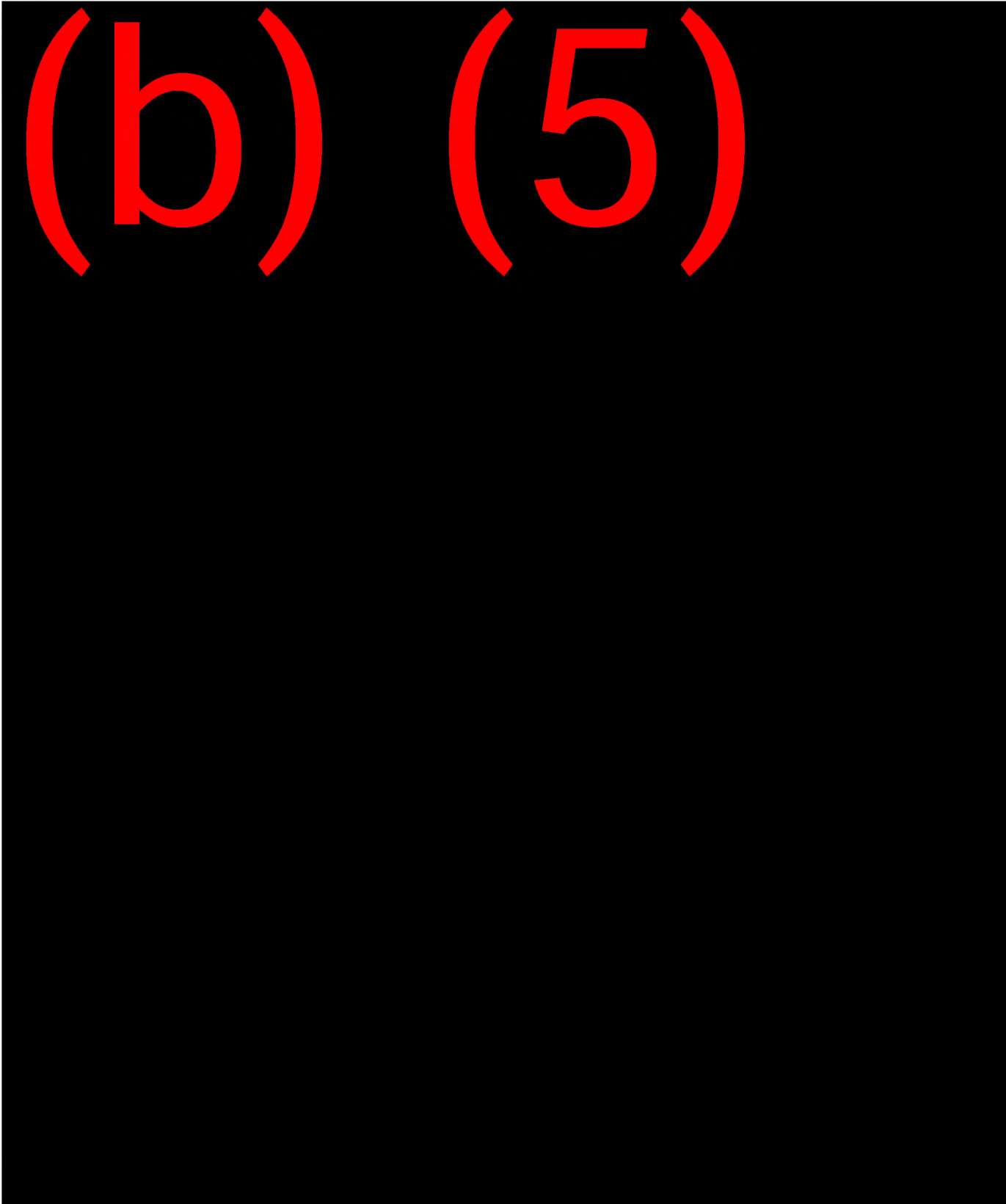
Tim,

Here are responses to Deputy Secretary Bernhardt's questions at the operations meeting along with the options he requested. The attached has some additional edits from the version I passed along this morning. If you think it fits the bill, please send along to the Deputy Secretary or let us know if you'd prefer we send it to him directly from here.

Thanks, Dave

-----  
David Applegate, Ph.D.  
Associate Director for Natural Hazards  
Exercising Authority of the Deputy Director  
U.S. Geological Survey  
12201 Sunrise Valley Drive MS 111, Reston VA 20192  
703 648 6600 voice, 703 648 7031 fax  
[applegate@usgs.gov](mailto:applegate@usgs.gov)

USGS Responses to Questions from Deputy Secretary Bernhardt and Options for 1002 Area



(b) (5)

(b) (5)

(b) (5)

(b) (5)

Conclusion

(b) (5)

**From:** [Travnicek, Andrea](#)  
**To:** [Applegate, David](#)  
**Cc:** [Timothy Petty](#); [Austin Ewell](#); [Nichols, Ryan](#); [Lukas, William](#); [Rae, Kerry](#); [Judy Nowakowski](#); [Joanne Taylor](#); [William Werkheiser](#); [Michelle Brown](#)  
**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Sunday, February 11, 2018 10:21:55 AM

---

Dave-

In regards to the Alaska follow up let's get a meeting set up for later in the week of Feb. 22 or 23 to meet with your Energy team that is working on the assessment. Also I think it would be good to meet in regards to all energy assessments to get an update on status of the projects.

I have cc'ed Michelle to find some time for us and your team to meet.

Thanks.  
Andrea

Andrea Travnicek, Ph.D.  
Deputy Assistant Secretary for Water and Science  
Office of the Secretary  
U.S. Department of the Interior  
work: 202-208-0969  
cell: 202-897-7220

On Thu, Feb 8, 2018 at 11:43 PM, Applegate, David <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:  
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We can discuss some of these action items at Monday's 1pm tag-up call.

Regards, Dave

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**From:** [Applegate, David](#)  
**To:** [Travnicek, Andrea](#); [Timothy Petty](#)  
**Cc:** [Austin Ewell](#); [Nichols, Ryan](#); [Lukas, William](#); [Rae, Kerry](#); [Judy Nowakowski](#); [Joanne Taylor](#); [William Werkheiser](#)  
**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Tuesday, February 13, 2018 3:22:49 PM  
**Attachments:** [USGS 1002 ongoing work to W&S.xlsx](#)

---

Andrea/Tim,

Attached is the requested spreadsheet on studies related to the 1002 area.

Regards, Dave

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David Applegate, Ph.D.  
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On Sun, Feb 11, 2018 at 1:04 PM, Travnicek, Andrea <[andrea\\_travnicek@ios.doi.gov](mailto:andrea_travnicek@ios.doi.gov)> wrote:  
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Another follow up in regards to the information below. By COB Tuesday this week (2/13) can we get a spreadsheet with all studies (partners, timelines, funding, etc) currently being conducted and or in process in the 1002 area? Send to Tim and I so we both have since I am on travel this week.

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Along these lines, Aimee just heard that FWS is putting some previously unpublished reports from the refuge on the web, so that would be material we did not include in our literature review, but Aimee has asked to get a listing of them.

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I also relayed the Dep Sec's question about (b) (5)

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(All this is probably just hip-

pocket material for you should the question be raised again.)

Hope all that helps! Aimee is happy to brief any time.

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

**From:** [Nowakowski, Judy](#)  
**To:** [Devaris, Aimee](#)  
**Cc:** [David Applegate](#); [William Werkheiser](#); [Joanne Taylor](#)  
**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Wednesday, February 14, 2018 3:41:20 PM

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I think it's fine for you to put Bill L back on and send, maybe just delete the last sentence and for the 2nd to last sentence would you be okay with something like "I'll provide some time frames as soon as things gel up a bit more on this end."? Thanks!

On Wed, Feb 14, 2018 at 5:34 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

OK -- very good. So are you sending it along, or do you want me to repeat the message with Lucas included? (I'm soooooooo chain-of-command oriented. That's a quote from my new "boss.")

On Wed, Feb 14, 2018 at 1:13 PM, Nowakowski, Judy <[jnowakowski@usgs.gov](mailto:jnowakowski@usgs.gov)> wrote:

I think so too and was just about to say the same thing...

On Wed, Feb 14, 2018 at 5:09 PM, David Applegate <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:

Aimee,

Unless the others have a different take, your response seems fully adequate for Tim's sake at this point with the promise of more to come as things get nailed down in discussion with your land manager counterparts.

Thanks, Dave

-----  
David Applegate, Ph.D.  
Associate Director for Natural Hazards  
Exercising Authority of the Deputy Director  
U.S. Geological Survey  
12201 Sunrise Valley Drive MS 111  
Reston VA 20192  
[703 648 6600](tel:7036486600)  
[applegate@usgs.gov](mailto:applegate@usgs.gov)

On Feb 14, 2018, at 4:54 PM, Devaris, Aimee <[adevaris@usgs.gov](mailto:adevaris@usgs.gov)> wrote:

Dave: (I took Bill Lucas off this message, in case you want to keep this answer "internal.")

This is an area of active discussion among myself, Karen Mouritsen, and Greg Siekaniec. Specifically, I am working to understand the BLM and FWS timelines in terms of their needs for our information, because that has implications on how we approach our work and how to resource it. As an example, we will likely have to contract for some statistical consulting work to aid in the completion of our PB model formulation for the 1002

population abundance estimate, and we will also likely need "priority" service for super-computing resources when the time comes. I have been working with Kevin Gallagher to assure that. We have also been discussing the fastest way to publish the material (open file report) while still adhering to our FSP. In this example, the soonest a PB population abundance estimate would be released is this fall.

I can try to provide some time frames as things gel up a bit more on this end. For now, the simple answer is we will turn products out as soon as humanly possible -- following our FSP.

Aimee

On Wed, Feb 14, 2018 at 12:36 PM, Applegate, David <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:

Bill L.,

Thanks for the heads-up on this additional request. I'm looping in Aimee Devaris who did such a nice job pulling the spreadsheet together. We will look to her help with how to meet Tim's request.

Thanks, Dave


-----  
David Applegate, Ph.D.  
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[applegate@usgs.gov](mailto:applegate@usgs.gov)

On Wed, Feb 14, 2018 at 1:18 PM, Lukas, William <[wlukas@usgs.gov](mailto:wlukas@usgs.gov)> wrote:

Dave and Bill

Tim talked some with me about this spreadsheet and is asking that we are a bit more specific on the timeline, particularly in regard to publications or other data products that may be released before the EIS's that BLM (and perhaps others?) are working on are completed. The value in knowing when new USGS information is released, that may be instructive to the EIS, is critical in order to prevent delays or even forcing the EIS process to restart. He acknowledges that it is difficult to nail down when a paper or report might be published, but hopes we can provide more detail on anticipated products and dates for their release.

Let me know if that makes sense or if you need more information.

  
Bill Lukas | 202-208-4457  
USGS Liaison to Water & Science  
[asws\\_liaison@usgs.gov](mailto:asws_liaison@usgs.gov)

On Tue, Feb 13, 2018 at 5:21 PM, Applegate, David  
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703 648 6600 voice, 703 648 7031 fax  
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**Aimee M. Devaris**  
Regional Director  
U.S. Geological Survey  
[4210 University Drive](#)  
[Anchorage, Alaska](#)  
[907-786-7055](#)

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[4210 University Drive](#)  
[Anchorage, Alaska](#)  
[907-786-7055](#)

**From:** [Devaris, Aimee](#)  
**To:** [Applegate, David](#)  
**Cc:** [Lukas, William](#); [William Werkheiser](#); [Judy Nowakowski](#); [Joanne Taylor](#)  
**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Wednesday, February 14, 2018 3:53:48 PM

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Dave/Bill:

This is an area of active discussion among myself, Karen Mouritsen, and Greg Siekaniec. Specifically, I am working to understand the BLM and FWS timelines in terms of their needs for our information, because that has implications on how we approach our work and how to resource it. As an example, we will likely have to contract for some statistical consulting work to aid in the completion of our PB model formulation for the 1002 population abundance estimate, and we will also likely need "priority" service for super-computing resources when the time comes. I have been working with Kevin Gallagher to assure that. We have also been discussing the fastest way to publish the material (open file report) while still adhering to our FSP. In this example, the soonest a PB population abundance estimate would be released is this fall.

I will provide some time frames as things gel up a bit more on this end. Hope that helps.

Regards,  
Aimee

On Wed, Feb 14, 2018 at 12:36 PM, Applegate, David <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:

Bill L.,

Thanks for the heads-up on this additional request. I'm looping in Aimee Devaris who did such a nice job pulling the spreadsheet together. We will look to her help with how to meet Tim's request.

Thanks, Dave

-----  
David Applegate, Ph.D.  
Associate Director for Natural Hazards  
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On Wed, Feb 14, 2018 at 1:18 PM, Lukas, William <[wlukas@usgs.gov](mailto:wlukas@usgs.gov)> wrote:

Dave and Bill

Tim talked some with me about this spreadsheet and is asking that we are a bit more specific on the timeline, particularly in regard to publications or other data products that may be released before the EIS's that BLM (and perhaps others?) are working on are completed. The value in knowing when new USGS information is released, that may be instructive to the EIS, is critical in order to prevent delays or even forcing the EIS process to restart. He acknowledges that it is difficult to nail down when a paper or report might be published, but hopes we can provide more detail on anticipated products and dates for their release.

Let me know if that makes sense or if you need more information.

Bill Lukas | 202-208-4457  
USGS Liaison to Water & Science  
[asws\\_liaison@usgs.gov](mailto:asws_liaison@usgs.gov)

On Tue, Feb 13, 2018 at 5:21 PM, Applegate, David <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:  
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Regards, Dave

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Thanks.  
Andrea

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U.S. Department of the Interior  
work: 202-208-0969  
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**To:** [Timothy Petty](#); [Travnicek, Andrea](#)  
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**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Tuesday, February 20, 2018 9:00:56 PM  
**Attachments:** [USGS 1002 ongoing work to WS w pubs estimates for Dep Sec.xlsx](#)

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Project	USGS PI name	Region/Center	Partners	USGS FY18 funding	Other funding	Coastal Plain (1002 area) location of work	Description of work	Anticipated products
Polar bear movements and denning	Todd Atwood	Alaska/Alaska Science Center (ASC)	USFWS	\$422K (existing USGS Ecosystems) \$322K (additional USGS Ecosystems in FY18)		Off shore tagging	Completion of reanalysis of habitat maps in 1002 Area (at request of Wackowski) using Ifsar data; continuation of annual field work with special concentration in March 2018 on eastern Beaufort sea to increase observations of denning in the ANWR 1002 Area (using ear tags); field testing of collar modifications in 2019	Report on reanalysis of polar bear denning habitat using remote sensing (Ifsar) techniques Jun 2018; Data release of den sites based on FY18 field work June 2019
Polar bear population abundance estimate	Jeff Bromaghin	Alaska/Alaska Science Center (ASC)	USFWS	\$120K		Field work was completed in FY17 across the Southern Beaufort area including the 1002 Area	Completion of spatially-explicit population estimates for the 1002 Area for the time period 2001 through 2016; statistical analysis underway	USGS Open File Report to be delivered in Sep 2018 and external publications by Jun 2019
Polar bear aerial survey	Todd Atwood	Alaska/Alaska Science Center (ASC)	Canadian government (contract with University of St. Andrews UK)	none		Field work was completed in FY17 across the range of the Southern Beaufort polar bear population including NW Canada	Analysis and report to be completed by University of St. Andrews by Sep 2018; USGS plans to review the report to determine usefulness in ongoing population estimate work	Release of aerial survey data Oct 2018
Fish of nearshore Beaufort Sea	Vanessa Von Biele	Alaska/ASC	USFWS BOEM University of Texas at Austin	\$196K USGS/BOEM Outer Continental Shelf Program		Coastal lagoons estuaries and beaches	Repeating/recreating studies done in the 1980s to examine trends in fish communities; continuation of summer fish sampling (2017-2020) along ANWR coast to compare with 1988-1995 sampling	Annual data releases and summary reports; completion reports and publications after 2020
Shoreline change	Li Erikson	Pacific/Pacific Coastal & Marine Science Center	University of Texas at Austin University of California Santa Cruz	\$50K USGS Natural Hazards		Coastal bluffs and beaches	Continuing field work in summer 2018	Updated shoreline-change rates for coast between US-Canadian border and Icy Cape was released in Nov 2017 Long-term retreat of coastal permafrost bluffs Barter Island AK (to be presented at 5th European Conf. on Permafrost Chamolx-Mont Blanc France 23 Jun to 1 July 2018) Manuscripts in preparation (from previously collected data); Seven decades of shoreline change along the permafrost bound North Coast of AK 1940 - 2010; The use of spatial methane distribution in the identification of coastal permafrost instability; Evaluation of long-term rates and patterns of change to coastal permafrost bluffs at Barter Island AK 1947-2017; Assessing patterns of annual change to coastal permafrost bluffs using aerial photography and structure-from-motion elevation models along the North Slope of Alaska; Aerial imagery and elevation data products of the north coast of Barter Island AK; A GIS compilation of vector shorelines and associated shoreline change data for the coastal bluffs at Barter Island AK
Reprocessing vintage 2D seismic data of 1002 Area	David Houseknecht	Midwest/Eastern Energy Resources Science Center (EERSC)	BLM BOEM	\$2M USGS Energy & Minerals (includes \$888K of FY17 money to be applied to reprocessing work carried out in 2018)		Across terrestrial locations of the 1002 and adjacent nearshore areas where ANWR seismic data was collected	Contract awarded for reprocessing of vintage 2D seismic data; reprocessed data to be delivered in July 2018; Interpretation and mapping based on that data through fourth quarter FY2018.	Updated oil and gas assessment of ANWR 1002 to be delivered by Jan 1 2019 (technical reports fact sheets)
Sample collection (field work) and laboratory analysis	David Houseknecht	Midwest/EERSC	FWS (logistical assistance) Alaska DNR (Geological & Geophysical Surveys Division of Oil and Gas)	\$2.3M USGS Energy & Minerals		Across terrestrial locations of the 1002 adjacent state lands and adjacent state and federal waters	Collect outcrop and well samples from external perimeter of 1002 Area spring & summer 2018; conduct laboratory analyses on samples to determine petroleum prospectivity of region summer & fall 2018.	Updated oil and gas assessment of ANWR 1002 to be delivered by Jan 1 2019 (technical reports fact sheets)
Participate in leasing BLM workshops and transfer knowledge from ongoing research	David Houseknecht	Midwest/EERSC	USGS supporting mission of BLM	\$200K USGS Energy & Minerals		Across terrestrial locations of the 1002	Provide support to BLM to inform preparation for lease sales in 1002 Area	Improved geological understanding for BLM to administer future lease sales (potential technical reports) and for industry to optimize future leasing decisions on the Alaska North Slope
Permafrost and climate data collection	Frank Urban	Southwest/Geosciences & Environmental Change Science Center	BLM FWS (collaborators)	\$20K USGS Climate and Land Use		Across northern AK including locations of the 1002	Annual field work during summer 2018 possibly coincident with Houseknecht's field season; network is part of the Global Terrestrial Network for Permafrost (GTN-P)	Ongoing monitoring project since 1998; last report/data release was 2014 for the period 1998-2011; Provisional data from 13 stations is available in near-real-time
Caribou forage and movements	Heather Johnson	Alaska/ASC	Alaska Department of Fish and Game (ADF&G) Texas A&M University	\$350K USGS Ecosystems	\$75K ADF&G	Outside of 1002 area but some tagged Central Herd animals migrate into 1002	Collaring and tracking animals through 2020 ongoing publication writing new analysis of caribou habituation to existing infrastructure	External publications and USGS data release by Sep 2018

**From:** [Timothy Petty](#)  
**To:** [Applegate, David](#)  
**Cc:** [Travnicek, Andrea](#); [Austin Ewell](#); [Nichols, Ryan](#); [Lukas, William](#); [Rae, Kerry](#); [Judy Nowakowski](#); [Joanne Taylor](#); [William Werkheiser](#)  
**Subject:** Re: Action items from W&S biweekly with Dep Sec  
**Date:** Wednesday, February 21, 2018 4:17:55 AM

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Sent from my iPhone

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<https://alaska.usgs.gov/products/pubs/2002/2002-USGS-BRD-BSR-2002-0001.pdf>

Along these lines, Aimee just heard that FWS is putting some previously unpublished reports from the refuge on the web, so that would be material we did not include in our literature review, but Aimee has asked to get a listing of them.

Deputy Secretary Bernhardt also asked about USGS liaisons to large projects, and in particular whether that might prove useful for the ANWR permitting process. Aimee reports that we already have John Pearce from our USGS Alaska Science Center in that role. Early on, Aimee and her FWS and BLM regional director counterparts saw the need to assign a liaison/POC for each of our Bureaus to ensure good coordination and communication at the "working level." John's counterpart for BLM is Nicole Hayes (their ANWR project manager), and for FWS it is Wendy Loya (who oversees the Arctic LCC). For energy assessments, Dave Houseknecht is the USGS lead, and as you know, he is a well-connected resource for all involved.

I also relayed the Dep Sec's question about (b) (5)

(b) (5)

(All this is probably just hip-pocket material for you should the question be raised again.)

Hope all that helps! Aimee is happy to brief any time.

Regards, Dave

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On Thu, Feb 8, 2018 at 11:43 PM, Applegate, David <[applegate@usgs.gov](mailto:applegate@usgs.gov)> wrote:

Tim and all,

A few follow-ups from the Deputy Secretary meeting this afternoon.

I checked, and we do not have any QFR's in arrears. The only ones currently in our hands are from last week's Senate Energy & Natural Resources Committee hearing on natural

hazards and aren't due for a couple more weeks. (By the way, I just saw this nice [summary](#) that the American Institute of Physics did of the hearing, emphasizing the level of support conveyed for the USGS role in the hazards arena.)

I wanted to follow up on the discussion of the infrastructure package. Although the focus at the meeting was on BOR, I did want to make the pitch that USGS has potentially a significant role to play both in terms of investments in our own scientific infrastructure and in the need for resource availability and hazard assessments to inform the larger suite of investments. I think you were at the Senate briefing we did back in March 2017 on how USGS could participate -- I'm attaching the one-pager prepared for that. We have lots more material to share.

Regarding Alaska activities, I wasn't sure what follow-up was needed on Bernhardt's question about (b) (5)

(b) (5)

I am looking into getting hold of the 2002 USGS report that is the predecessor to the new literature review of ecological research in ANWR and will circle back on that.

We will work on the requested briefing paper about USGS overhead rates charged on reimbursable agreements, due next Friday 2/16.

We will provide some examples to you of USGS liaisons to large projects

We can discuss some of these action items at Monday's 1pm tag-up call.

Regards, Dave

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**From:** [David Applegate](#)  
**To:** [Walter Guidroz](#)  
**Cc:** [William Werkheiser](#); [Judy Nowakowski](#); [Geoffrey Plumlee](#); [David Diamond](#); [Sarah Ryker](#); [Houseknecht, David](#)  
**Subject:** Re: Bernhardt questions re [REDACTED]  
**Date:** Wednesday, February 21, 2018 4:53:25 PM

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Walter/Dave,

Thank you for turning my scrawl into silk. Will read over and let you know if I have questions.

Much obliged, Dave

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On Feb 21, 2018, at 4:49 PM, Walter Guidroz <[wguidroz@usgs.gov](mailto:wguidroz@usgs.gov)> wrote:

Dave A,

I took your notes on the questions raised from today's meeting with DepSec Bernhardt and drafted them into a document, the answers for which Dave Houseknecht worked on diligently while in Texas. I've also added a few tidbits but hopefully this addresses the main elements sought by the DepSec in his meeting today. Please let us know if we've missed anything or if any additional info is required. Thanks...

Walter

<Bernhardt questions re [REDACTED].docx>