

Questions from Chairman Murkowski

Murkowski 1. Last year the Alaskan Village of Council Presidents (AVCP) was selected to participate in the Tiwahe demonstration project and has received approximately \$986,000 in base and Tiwahe funding. For those of you not familiar with the AVCP, it is a consortium of 56 Alaska Native villages in western Alaska. The villages are remote and somewhat isolated over a 59,000 square mile area with a population of approximately 25,000. All travel to and from the villages is by small plane or boat. The AVCP administers programs, fund projects, and provides social services to the villages.

The Tiwahe initiative is a 5- year pilot program that aims to help tribes develop a comprehensive approach for the delivery of services to communities through partnerships with the tribe, local communities and the state and federal government. The overall goals and objectives are, to improve screening and access to family and social services, to create alternatives to incarceration via solution focused sentencing, improving links to appropriate prevention, intervention and treatment opportunities.

- a. I understand this is a 5 year pilot program, but I am interested in hearing more about how the program is structured for each tribe and how the funding for each pilot site is determined. Would you briefly explain how the sites are selected, how the pilot is designed, and how the funding is determined and delivered?

Answer: Tiwahe sites were selected based on geographic diversity, governance structure diversity, unmet need, and capacity. Alaska's geographic diversity from the lower 48 tribes and level of federal resources to support tribal families, combined with AVCP's administrative capacity and interest in developing wrap-around services, led to BIA's selection of AVCP as a pilot site.

Tribes at the six pilot sites (four in FY15 and two in FY16) are required to develop plans to address their needs. Each site plan must address goals in the areas of social services, child welfare, employment and training, recidivism and/or tribal courts. BIA provided funding through a 50% increase to their Social Services Tribal Priority Allocation (TPA) and Indian Child Welfare Act (ICWA) FY14 base level funding, and a pro rata increase in Job Placement and Training Funds. BIA delivered funding through either an Indian Self Determination and Education Assistance Act (ISDEAA) contract or compact. In addition to the funding received by the pilot sites, all tribes and BIA regions operating social services and ICWA programs received increases from their FY14 base levels as part of the Initiative.

- b. The President's proposal for the initiative is \$21 million over FY16 enacted levels. What is the plan for this increase? Would you seek to expand the pilot to additional sites in Alaska and elsewhere?

Answer: Of the \$21.0 million Tiwahe Initiative increase in the FY17 request, \$18.4 million is for social/human services programs and \$2.6 million is for the Public Safety and Justice's Tribal Courts program. Here is a summary of the funding breakdown:

- +\$12.3 million - Social Services (TPA)
 - \$5.0 million: Provide expanded social services such as child welfare and family and domestic services at five additional Tiwahe sites;
 - \$5.2 million: Focus on capacity building at specific tribal sites, including the hiring of 30 additional social workers in Indian Country;
 - \$1.0 million: Support the continuation of the Research and Evaluation contract which will assist tribes with goals and performance measures;
 - \$1.1 million: Support the continuation of the Center for Excellence which gives tribes opportunities to continue learning, cross training, and to conduct information sharing in areas related to leadership, best practices, research, support and training
- +\$3.4 million - Indian Child Welfare Act (ICWA) TPA: Increase tribal preventive services efforts in providing family assistance and home improvement services, which should build stronger families and decrease instances of child removal from the home
- +\$1.7 million - Housing Improvement Program (HIP): Improve housing conditions, and access to suitable housing, at the Tiwahe sites with a focus on veterans and single family households
- +\$1.0 million - Job Placement & Training Program (JPT): Support employment and training activities at Tiwahe sites
- +2.6 million – Tribal Courts: Sustain the existing Tiwahe sites and provide targeted base funding to five additional locations under the Tiwahe Initiative. The resources will assist tribes in creating stronger tribal court infrastructure to address issues related to children and family services, as well as develop special projects to reduce the rate of repeat offenders and criminal recidivism.

If funded at the President’s request, BIA would add five additional Tiwahe sites in FY17. These five would join the original four selected in FY15, and the two selected in FY16 (bringing the total number of Tiwahe sites to eleven by the end of FY17).

Murkowski 2. ANILCA is perhaps the largest conservation contribution in the world’s history and certainly the nation’s. Alaska has more Conservation System Units (“CSUs”) than the entire nation combined, yet we continue to see more and more land taken off the table for development. Land planning in Alaska is managed in a tenuous and never-ending process that specifically ignores ANILCA. The process results in outcomes that do not favor development. In addition, few people have the time, energy, and expertise to participate in these plans. For example: Bering Sea/Western Interior RMP contained 56 maps, 1,200 pages, and 63GB of data. Furthermore, this plan and similar plans exclude multiple- use through ACECs, RNAs, and other proposed closures. What is being done to ensure the balance for conservation and economic opportunity intended by ANILCA is considered for future land management plans?

Answer: The land use planning process in Alaska encourages collaboration and partnerships that assist the BLM in determining how to balance the needs of adjacent communities with the management of public land resources. Recognizing the challenges associated with the timeliness of long term planning activities, BLM has recently developed the Planning 2.0 initiative that will improve the bureau’s ability to respond to environmental, economic and social changes in a timely manner; strengthen opportunities for State and local governments, Indian Tribes, and the public to be involved in initial decisions leading to the development of land use plans; and

improve the BLM's ability to address landscape-scale resource issues. In Alaska, the provisions of the Alaska National Interest Lands Conservation Act (ANILCA) and the Alaska Native Claims Settlement Act (ANCSA) are regularly incorporated into the planning process and when considering mitigation, provisions of FLPMA and ANILCA help identify significant resources and Conservation System Units that could be impacted by development. Early and frequent public engagement and a robust planning process that balance both conservation and resource use will continue to be the key to BLM's land use planning.

Murkowski 3. As you know, once covering 160 million acres, the Public Land Orders ("PLOs") were put in place after 1971 to guarantee that Alaska Natives could select their ANCSA selections. The Department's own report in 2004 said there was no need for any more than 6.7 million acres to still be encumbered – and that number has since been further reduced over the past dozen years with the completion of revised Bureau of Land Management plans. Moreover, Natives have now filed all their selections.

- a. Please provide specifically what actions your agency is taking to actively lift the remaining Public Land Orders (PLOs) reserving lands throughout the State of Alaska.

Answer: Public Land Orders (PLOs) determine which lands are or are not available for selection by either an Alaska Native Claims Settlement Act (ANCSA) corporation or the State of Alaska. This authorizes the Secretary to classify and reclassify the lands withdrawn and to open the lands to appropriation in accordance with the Secretary's classification. The original PLOs state that any lands not conveyed to an ANCSA corporation would remain reserved for study and review for the purpose of classification or reclassification. The Bureau's land-use planning process satisfies the requirement for such study, review, and classification and is the appropriate mechanism for recommending a withdrawal be lifted. Over the decades, many of these PLOs were amended several times to allow for millions of acres to be made available for State selection and/or entry under the mining laws.

The State currently has an estimated remaining entitlement of 5.2 million acres, but an estimated 14.9 million acres selected. By contrast, the State has 6.5 million acres of "top-filings" (future selections that would "attach" if and when the pertinent withdrawal (PLO) is lifted). It should be noted that the State has a statutory 25% limitation on its over selections. Based on its existing remaining entitlement, the State should have only 6.6 million acres of selections. The State is currently 8.3 million acres over its statutory limit on over-selections. Lifting any PLOs to make more lands available for the State to select would further increase its over-selection.

Currently, lands selected by the State are not available for a rural subsistence priority. Accordingly, lifting PLOs to allow a State top-filing to attach and become a selection will reduce the acreage of lands available for rural subsistence priority. This is one of the reasons the BLM feels that the Bureau's land use planning process, which is open to public input and comment (including by the State) is the appropriate mechanism for recommending a withdrawal be lifted.

- b. I would like your commitment to lift all the remaining PLOs as soon as possible, and please provide a timeline by which you commit to abide.

Answer: The appropriate mechanism for recommending withdrawals is through the Bureau's land-use planning process. This process is open to public input (including the State of Alaska) and comment. Since 2007 in Alaska, four resource management plans have been completed where recommendations were made to lift withdrawals and currently there are three resource management plans ongoing where recommendations will be made upon completion.

Murkowski 4. On February 4, I sent you a letter with Chairman Cochran, Chairman Rogers, and Subcommittee Chairman Calvert regarding the Office of Surface Mining's Stream Buffer Zone Rule. The letter related to the directive in the fiscal year 2016 omnibus that required the Office of Surface Mining to provide States with information they requested related to the Stream Buffer Zone Rule, as well as to meet with States at their request.

I am extremely concerned about the manner in which this rule has been written – primarily because 9 out of 10 of the States who entered the process as cooperating agencies decided to withdraw from the process because of a lack of meaningful consultation with OSM. This directive was meant to reverse course and ensure that OSM moves forward in a more cooperative manner.

Shortly after my letter was sent, the State of Alaska sent the Department a letter related to the requirement that OSM provide states with relevant reports, data and analyses. As an initial step, the State of Alaska requested that OSM provide a summary of the documents. The letter indicated that Alaska would then request a subset of those documents and eventually, request a meeting with OSM.

- a. Have you provided the State of Alaska with the summary of documents they requested? If not, when do you anticipate that such information will be provided?

Answer: OSMRE made these documents available to all of the States on March 24, 2016, by uploading reference materials cited in the proposed rule on the website *regulations.gov* with the exception of reference materials protected by copyright law. OSMRE has also offered assistance through its librarian to those States that request such help to obtain copyright protected materials. The materials are available to the public. The Assistant Secretary and OSMRE officials are holding meetings with the State of Alaska on May 18-22, 2016.

- b. In a recent budget hearing in the Senate Energy Committee, Deputy Director Connor said the documents specified in the report language would be ready for the states "in a few weeks." What is your plan for meeting with states after they have had time to review the information you are required to provide them?

Answer: OSMRE offered to dedicate its time at the Interstate Mining Compact Commission on April 18, 2016, to meet with the States. During these meetings, the Stream Protection Rule as well as other topics were discussed. In addition, OSMRE scheduled a series of technical meetings to further engage the States. Staff from 6 state regulatory authorities participated in the meeting on April 14, 2016 and 5 State regulatory authorities participated in the meeting on April 21, 2016.

- c. Additionally, can you share the timing and process you envision for moving forward with the stream buffer zone rule? Given that the states will presumably be raising a number of new issues based on the information they receive in the technical documents, will you reopen the comment period so that the public has the opportunity to comment on that information as well?

Answer: OSMRE has prepared a summary of the State meetings for the administrative record. No additional public comment period for the rulemaking is currently planned.

Murkowski 5. Within the Fish and Wildlife Service's Ecological Services budget, and specifically within the Endangered Species Listing program, the Department has proposed shifting a sizeable portion of the budget from "critical habitat designations" to "petitions." I am concerned about this shift because I am still hearing concerns from members who opposed the Department's decision to enter into a multi-species settlement agreement in 2011.

I have heard from members that this effort, which required the Service to make listing determinations on more than 250 species was done without consultation of local governments or communities that are impacted by that settlement agreement. With the actions required in that settlement agreement coming to an end in 2016, I am concerned that the Service will see fit to enter into another similar agreement.

How can I be certain that, if we decide to shift money from critical habitat designations to petitions, the Service will not be inclined to enter into a similar, closed-door settlement agreement?

Answer: The Endangered Species Act establishes mandatory duties and timeframes for various listing duties including petition findings, listing determinations, and critical habitat designations. Failure to meet the statutory timeframes can lead to lawsuits. When it is in the best interest of the Government to do so, litigation can be resolved through settlement agreements; this typically occurs when the Service does not have a viable defense and a settlement is expected to achieve more favorable terms through negotiation. To avoid litigation, the Service strives to meet the ESA's deadlines and has requested the funding needed to do so.

The requested amounts in the Listing subactivity reflect the anticipated FY17 workload. In FY17, the Service will need less funding than in FY16 to address critical habitat designation for already listed species because there are fewer such critical habitat designations outstanding. In contrast, the anticipated workload for petition findings will be greater in FY17 than in FY16; thus, the budget includes funding under the subcap for the functional area to be increased. By having the subcaps reflect the distribution of the workload, the Service hopes to reduce litigation by working on all types of outstanding actions.

Murkowski 6. I have been concerned with the Department's actions related to the polar bear for a number of years. I disagree with the 2008 listing determination and vehemently disagree with the designation of more than 187,000 square miles of land – an area larger than the state of California – as "critical habitat" for polar bears. When combined with the other hostile actions undertaken by the Administration when it comes to developing our public lands, the listing and

designation has the potential to devastate our State's economy.

My concern has long been that the Department based its listing decision more on the expectation that climate change would decrease polar bear habitat and stocks in the future, than on fact that stocks are currently in decline. I have seen no data to show that polar bear stocks currently are in significant decline across northern Alaska (the issue of potential Russian poaching aside) and thus, the species does not warrant protections under the Endangered Species Act.

Has the Department undertaken any recent efforts to consider new science related to polar bears in an effort to determine whether the species should be listed under the Endangered Species Act? If so, please provide me with the studies that you have considered. If not, please share with me the reason for not moving forward and whether there is a plan for moving forward.

Answer: The Fish and Wildlife Service (Service) initiated a 5-year status review under the Endangered Species Act of 1973, as amended (ESA), for the polar bear (*Ursus maritimus*) on October 13, 2015. The purpose of this 5-year review is to ensure that the polar bear has the appropriate level of protection under the Act. The polar bear's "threatened" status reflects the finding that it is not presently in danger of extinction, but is likely to become endangered in the foreseeable future. A 5-year review affords the opportunity to periodically take a comprehensive look at the full body of information available for a species and assess its progress toward recovery. These reviews assist the Service and its partners in identifying conservation needs, better targeting and prioritizing conservation efforts for the species, and determining whether a species may warrant downlisting, delisting, or uplisting.

As a part of the 5-year review, the Service published its intent to collect the following data regarding the polar bear species: species biology, including but not limited to population trends, distribution, abundance, demographics, and genetics; habitat conditions, including but not limited to amount, distribution, and suitability; conservation measures that have benefited the species; threat status and trends; and other new information, data, or corrections, including but not limited to changes in taxonomy or nomenclature and identification of erroneous information contained in the List of Endangered and Threatened Wildlife and Plants.

In addition to the 5-year review process, through the Service's participation in co-management arrangements via the U.S.-Russia Bilateral and Inuvialuit-Inupiat Agreements, the Service considers new science on an annual basis as it relates to sustainable harvest levels for the Chukchi and Southern Beaufort Sea subpopulations of the polar bear, which are harvested for subsistence. The Service does not have a recent population estimate for the Chukchi Sea subpopulation, but does have evidence that polar bear body size and condition remains stable despite the declines in habitat (sea ice). In the Southern Beaufort Sea subpopulation, multiple lines of evidence suggest that polar bears may be in decline due to decreased sea ice availability, including reductions in body size, body condition, and recruitment in recent decades (Regehr et al. 2006, Rode et al. 2010, 2014a). A recent publication (Bromaghin et al. 2015) indicates that polar bear numbers in the Southern Beaufort Sea subpopulation significantly declined from 2004 to 2007 and survival of subadult bears declined throughout the entire period of 2001-2010.

Regehr et al. 2006:

Regehr E.V., S.C. Amstrup, and I. Stirling. 2006. Polar bear population status in the southern Beaufort Sea. U.S. Geological Survey Open-File Report 2006-1337, U.S. Geological Survey, Alaska Science Center, Anchorage, AK, USA.

Rode et al. 2014:

Rode, K.D., E.V. Regehr, D.C. Douglas, G. Durner, A.E. Derocher, G.W. Thiemann, and S.M. Budge. 2014. Variation in the response of an Arctic top predator experiencing habitat loss: feeding and reproductive ecology of two polar bear populations. *Global Change Biology* 20:76-88.

Rode et al. 2010:

Rode K.D., S.C. Amstrup, and E.V. Regehr. 2010. Reduced body size and cub recruitment in polar bears associated with sea ice decline. *Ecological Applications* 20:768–782.

Bromaghin et al. 2015:

Bromaghin, J. F., T. L. McDonald, I. Stirling, A. E. Derocher, E. S. Richardson, E. V. Regehr, D. C. Douglas, G. M. Durner, T. Atwood, and S. C. Amstrup. 2015. Polar bear population dynamics in the southern Beaufort Sea during a period of sea ice decline. *Ecological Applications* 25:634-651.

Murkowski 7. The Fish and Wildlife Service has requested the authority to seek compensation from responsible parties who damage or destroy National Wildlife Refuge System or other Service resources. This legislative language has been circulating for a number of years. In 2014, a hearing was held in the Environment and Public Works Committee a bill that was introduced by Senator Cardin. My understanding is that no legislation has been introduced in the current Congress and the Environment and Public Works Committee has not taken action on the matter.

- a. Why has the Department only requested this authority for the Fish and Wildlife Service? I understand the National Park Service has similar authority already, but the Bureau of Land Management does not. Is there a reason that the request was made only for the Fish and Wildlife Service?

Answer: The National Park Service and Bureau of Land Management both have authorities to allow them to retain collections from damages for repair and restoration.

The NPS authority provided by 54 U.S.C 100721-25 allows NPS to use response costs and damages recovered under the authority or amounts recovered under any statute as a result of damage (destruction, loss of, or injury) to any resource within a unit of the National Park System to be retained and used for response costs, damage assessments, restoration, and replacements.

The Bureau of Land Management's annual appropriations language for Service Charges, Deposits and Forfeitures provides general federal authority to collect fees for rehabilitation of damaged public lands. The BLM has specific requirements in the BLM Realty Trespass Abatement Handbook on the deposit and use of rehabilitation/stabilization funds. It states that funds received for rehabilitation/stabilization of damaged lands as result of trespass settlement or

bond forfeiture are deposited into the Service Charges, Deposits and Forfeitures account and are available for in-state rehabilitation and stabilization work on lands damaged by trespass.

- b. I have heard concerns that providing this authority will lead to additional prosecutions of individual because the Service will be incentivized by the prospect of additional revenue. What can you do to assure me that this will not happen?

Answer: The Service has a responsibility to manage public resources for both current and future generations. In order to maintain these resources, the Service expects parties responsible for damaging them, not taxpayers, to pay restoration costs. The intent of this authority is to ensure that the Service, and the American people, will not have to pay for restoration activities and that those causing these impacts pay for their restoration. It is not intended to generate revenue for the Service.

While this authority would be new for the Service, it is not a new authority for government agencies. The National Park Service (NPS), National Oceanic and Atmospheric Administration (NOAA), and the Bureau of Land Management (BLM) have similar authorities and we look to their models to implement this law, if enacted.

Any funds collected to compensate for resource injuries will be used to rectify that specific injury alone. The legislation, if enacted, would deposit the recovered funds into the Department of the Interior Natural Resource Damage Assessment and Restoration Fund, as is done with natural resource damages recovered under the Comprehensive Environmental Response, Compensation, and Liability Act, the Oil Pollution Act, and the Park System Resource Protection Act (16 USC 19jj). These funds would be maintained separately and used solely for cases handled under this authority.

Murkowski 8. The FY2016 Omnibus Appropriations bill contained a substantial increase for LWCF. The total discretionary appropriation was \$450 million, an increase of \$50 million over the President's FY2016 discretionary total and \$144 million over the FY2015 enacted level of \$306 million. Congress was able to fund the President's proposed discretionary funding lists and increase the NPS state side program to \$110 million. Given the funding pressures for the Interior bill this year it will be hard to meet the FY2016 appropriated level; therefore, we need to carefully look at the projects the President has proposed in his budget submission to make sure they have been fully vetted and are ready to go.

The explanatory statement on the FY2016 Omnibus stated that many of the projects the Administration has proposed over the years lack sufficient information, and that requested projects should have identified properties, willing sellers, updated appraisals or market information, and the support of Federal, State, and local officials.

Have all of the projects submitted in the FY2017 budget met all of these conditions?

Answer: To the greatest extent possible, LWCF land acquisition projects proposed by the FY 2017 budget meet the conditions laid out by the FY 2016 Omnibus explanatory statement; however, the Department chooses to use discretion when it comes to disclosing certain details on

the projects in the Greenbooks for a variety of reasons. Upon request from the Appropriations Committee, the bureaus may provide further details to cover the conditions, and both the bureaus and Department make a point to alert in a timely manner the Interior Appropriations Subcommittees if project details and/or status change.

The bureaus included the following information in the Greenbook project data sheets, as well as briefing materials for Congress, for each proposed acquisition:

- Full page profiles and maps of each acquisition, including estimated cost, acres, and location. Should those details change or be updated, the bureaus and Department relay that information to the Appropriations Committee.
- Contributors known to the bureaus' state and regional offices that are partners or supporters of the proposal acquisition. These identified contributors may include, but are not limited to, the following: State, county or local governments or agencies; national, State or local private non-profit organizations; Federal government partner agencies; charitable foundations; land and battlefield trusts; and local and regional committees or networks (including those representing ranchers, farmers, hunters, anglers, and other outdoorsmen).

The bureaus did not cite by name in the Greenbook project data sheets individual Federal, State, and local officials who support projects, choosing instead – where applicable – to cite the support of Federal, State, county, or local governments or agencies.

Willing sellers are not identified in the budget for several reasons. Bureaus, working through their field and regional offices, identify land parcels in or adjacent to public lands for purchase, as well as potential willing sellers. Given that acquisition projects may take two to three years to complete, in the early stage of a budget request, bureaus may not have concrete willing sellers yet (only potential). Privacy issues may arise when landowners and potentially willing sellers do not want their neighbors to know that they are talking to the government about selling. Additionally, there is the value expectation. If a landowner sees his or her name listed along with a request number, the landowner comes to expect the entire amount, regardless of the actual appraised value.

Details on each land acquisition project also reflect consideration of several additional criteria important to the bureaus and Department, including the ecological, economic, and cultural values the project conserves; contribution of leveraged funds; partner participation and support; and the urgency of project completion to protect natural areas and wildlife species habitats from development or other incompatible uses.

In a continuing effort to provide user friendly data, the Department provides an interactive map of the properties it submitted for consideration to Congress for the 2017 budget at: [https://www.doi.gov/sites/doi.gov/files/uploads/LWCF BIB map FY2017.pdf](https://www.doi.gov/sites/doi.gov/files/uploads/LWCF_BIB_map_FY2017.pdf).

Murkowski 9. The explanatory statement also expressed that the agencies should include the feasibility of phasing projects as well as a description of which parcels are being considered for conservation easements or fee simple acquisition.

Discuss compliance with this guidance. What number or percent of the requested projects were identified as able to be accomplished in phases? What number or percent of the projects were identified as acquisitions for conservation easements versus fee simple acquisitions?

Answer: For the BLM, several of the FY 2017 projects could be phased -- within discretionary funding 10 of the 14 projects (or 71 percent) could be phased. Within BLM discretionary funding, 68 percent would be invested in fee acquisitions and 32 percent would be invested in easement acquisitions.

The FWS discretionary request for FY 2017 would purchase approximately 16,375 fee acres (39 percent) and 25,670 conservation easement acres (61 percent). Most of the FWS projects have already been phased; however, four of the projects, or 25 percent, can be further phased since they are comprised of multiple tracts.

Of the 33 projects included in the NPS FY 2017 Budget for Federal land acquisition, four projects are parts of phased acquisitions:

1. Grand Teton NP(Discretionary): The State of Wyoming entered into an agreement with the United States for a phased conveyance of approximately 1,400 acres of state-owned land within Grand Teton National Park. The FY 2017 budget includes \$22.5 million which will be obligated to cover the federal cost of a portion of that phased conveyance.
2. Hawaii Volcanoes NP (Discretionary): Funding requested (\$6 million) will be used to acquire half of the 16,467-acre Pohue Bay/Kau Coast property at the park.
3. Hawaii Volcanoes NP (Mandatory): Funding requested (\$6 million), if appropriated, will be used to acquire the second half of the Pohue Bay/Kau Coast property at the park.
4. Palo Alto NHP (Mandatory): The requested funds would commence a phased acquisition of a tract containing 1,353.84 acres of land (Total Estimated Value: \$9,125,000) located within the national historic site.

Of the 33 projects included in the NPS FY 2017 Budget Request for Federal land acquisition, three projects are identified as easement or less-than-fee acquisitions (Death Valley NP, Katmai NP and Redwood NP), one project involves both fee and easement acquisitions (Martin Van Buren NHS), and two projects may involve either fee or easement acquisitions (Little River Canyon NP and Nez Perce NHP). The possibility of acquiring a conservation easement varies, depending on the contemplated Federal use of the property and the willingness of the landowner to sell such easement.

Murkowski 10. The explanatory statement also included language to increase the transparency of the project selection and prioritization processes in the annual budget requests, particularly in regard to collaborative landscape projects. Over the years, there has been concern among many in the community and here in Congress about how the Administration picks projects for the discretionary and mandatory lists. It appears that many of the projects have been geared toward the Western US and that geographic distribution of funds has not been a factor in your project selection. Typically Congress has funded the proposed lists in the order requested; however, with

questions about the quality of projects and the process used to select projects Congress may need to revisit this approach.

Given these questions about quality and process: What process does the Department use to compile the project lists, including for identifying collaborative areas? What considerations does the Department take into account when selecting and prioritizing projects? What is the geographic distribution of requested funds?

Answer: The President's FY 2017 budget includes 135 land acquisition projects across the Department of the Interior and the Department of Agriculture's four land management agencies in 41 States. The wide range of projects proposed for funding includes important wildlife habitat and migration corridors in Florida's Everglades, grassland and wetland habitats popular with hunters and anglers in eastern North Dakota and South Dakota, historic structures associated with the Wright brothers and the early development of the airplane at the Dayton Aviation Heritage National Historical Park in Ohio, permanent public access to the South Puget Sound Coastal Forest in Washington State, scenic vistas along the Appalachian Trail, and popular public recreation sites in national monuments in Arizona, Idaho and New Mexico. The attached map shows the location of each proposed land acquisition project, and demonstrates the geographic diversity of projects in FY 2017.

The National Park Service (NPS), Bureau of Land Management (BLM), and Fish and Wildlife Service (FWS) each has its own criteria that are used to evaluate and prioritize proposed land acquisitions.

NPS utilizes a nationwide priority ranking system, the Land Acquisition Ranking System (LARS). The initial information for each project is provided by the park unit and reviewed by regional or field offices of the Land Acquisition Program. Land Acquisition staff in each office assists the Regional staff in ranking the requests received using guidelines provided by the Washington (WASO) Program Office. The LARS incorporates several criteria, including, but not limited to: the threat to and preservation of the resource; a commitment has been made to acquire; involvement of partners, non-profit group support or availability of matching funds; recreational opportunities; existence of legislative authority to acquire; and ability to obligate appropriated dollars.

For BLM, submissions include a completed project narrative, fact sheet, questionnaire, representational map(s) and digital color images – and are limited to no more than 20 projects per State Office (SO). To be eligible projects must be:

- 1) Within or contiguous to, a unit of the National Landscape Conservation System (NLCS) (with the exception of Wilderness Study Areas), an Area of Critical Environmental Concern or a Special Recreation Management Area;
- 2) Comply with Section 205 (b) of the Federal Land Policy and Management Act (identified for acquisition within an approved land use plan); and
- 3) Be available for purchase from a willing seller owner.

Submissions are then reviewed by the National Review Team (NRT). The NRT is a multi-disciplinary team consisting of representatives from different levels of the organization. The NRT recommends a prioritized list of project proposals to BLM leadership. The BLM LWCF Land Acquisition list reflects bureau and departmental priorities, potential sources and levels of funding, and the latest information on willing sellers.

FWS's 2014 Strategic Growth Policy directs FWS to focus on acquiring lands and waters in fee, conservation easement, and/or donation that support three conservation priorities:

- 1) Recovery of threatened and endangered species;
- 2) Implementing the North American Waterfowl Management Plan; and
- 3) Conserving migratory birds of conservation concern.

Based on these three priorities to evaluate proposed NWRS land acquisitions, FWS uses the Targeted Resource Acquisition Comparison Tool (TRACT). The TRACT provides a biological, science-based, and transparent process for ranking proposed NWRS land acquisitions.

TRACT biological evaluation plays a role in LWCF budget formulation, but is not the only factor considered when making decisions about where to request LWCF funds for NWRS land acquisition. The LWCF project list submitted by FWS reflects additional considerations, such as bureau operational priorities, partner support, potential non-federal funding sources, unique land acquisition opportunities, and the latest information on willing sellers. Land acquisition projects proposed for the FY 2017 budget reflect additional important factors, including conservation partner participation, and urgency of project completion to protect natural areas from development or other incompatible uses.

The Service considers the minimum interest necessary to reach management objectives. For example, conservation efforts for the greater sage grouse and central Florida ecosystem are compatible with traditional land use. Therefore the Service may choose to seek conservation easements or, to enhance public access and recreational opportunities, a combination of fee and conservation easements acquisition.

The Administration's strategic approach to using LWCF land acquisition funds in FY 2017 includes funding for Collaborative Landscape Planning (CLP) projects. This interagency program brings the Departments of the Interior and Agriculture together with local stakeholders to identify large natural areas where LWCF funds can achieve the most important shared conservation and community goals in the highest priority landscapes. Conserving large-scale natural areas provides multiple resource and economic benefits to the public, including clean drinking water, recreational opportunities, protected habitat for at-risk and game species, and jobs generated on and off these lands. The Secretaries of the Interior and Agriculture follow a rigorous competitive and merit-based based evaluation process to select collaborative landscapes for investment. After evaluating and prioritizing multiple ecosystems, they selected seven landscapes for discretionary and mandatory funding in FY 2017:

- Island Forests at Risk (HI)
- High Divide (ID, MT)
- Rivers of the Chesapeake Collaborative (MD, VA, WV)

- National Trails System (CA, GA, HI, ID, MT, NM, OR, PA, TN)
- Florida-Georgia Longleaf Pine Initiative (FL)
- Southern Blue Ridge (GA, NC, TN, VA)
- Pathways to the Pacific (OR, WA).

Qualifying projects are submitted by bureaus which are evaluated and selected for inclusion within available budget resources.

Murkowski 11. According to the EPA, methane emissions from hydraulic fracturing at natural gas wells is down 83% since 2011 and total methane emissions from natural gas production are down 38% since 2005.

a. Is natural gas a key component of GHG reductions?

Answer: Reducing natural gas emissions reduces waste of America's public resources and provides important greenhouse gas (GHG) emission reductions. Methane, the primary component of natural gas, is an especially powerful GHG. Its climate impact is roughly 25 times that of CO₂, if measured over a 100-year period, or 86 times that of CO₂, if measured over a 20-year period.[1] Thus, measures to conserve such gas, avoid its waste, and reduce unnecessary releases significantly benefit local communities, public health, and the environment.

[1] See Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis*, Chapter 8, *Anthropogenic and Natural Radiative Forcing*, at 714 (Table 8.7), available at https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf.

b. Does the use of natural gas help drive down GHG emissions?

Answer: The effect of use of natural gas on GHG emissions depends on both the energy source that would be used in lieu of the natural gas, and on the quantity of methane lost during the natural gas production process. Assuming limited methane losses, replacing coal or oil with natural gas can help drive down GHG emissions. Where natural gas replaces non-carbon energy sources, such as renewable or nuclear energy, however, the use of natural gas increases GHG emissions. Also, because methane is a far more potent GHG than CO₂, methane lost during the natural gas production process can offset the benefits of using natural gas in place of other fossil fuels.

c. Does the administration want to see U.S. natural gas production continue to help bring down GHG emissions?

Answer: The continued production and use of natural gas are consistent with the Administration's goal of achieving a cleaner, more secure energy future, provided that gas losses are minimized. Consistent with this recognition and our overall climate goals, finalization of the recently proposed Methane and Waste Prevention rule will help curb waste of our Nation's natural gas supplies, reduce harmful methane emissions that worsen climate change, and provide a fair return on public resources for Federal taxpayers, Tribes and States.

Murkowski 12. Over the course of the U.S. energy boom, according to the Energy Information Administration, marketed natural gas production has increased by 35 percent, over the nine-year period from 2005 to 2013, from about 19 trillion cubic feet of gas per year to about 25 and a half trillion cubic feet of gas per year. Over this same period, EPA data show that methane emissions from hydraulically fractured natural gas wells decreased by about 80 percent, emissions from natural gas production decreased by about 38 percent and total methane emissions decreased by about 11 percent.

- a. In view of this information, and in view of EPA’s continued efforts to reduce methane emissions from industry sources, why has the BLM, under your authority, chosen to promulgate its own methane regulations?

Answer: The proposed Methane and Waste Prevention Rule aims to reduce the waste of natural gas from BLM-administered mineral leases. This gas is lost during oil and gas production activities through flaring or venting of the gas, and equipment leaks. The BLM has an independent statutory responsibility to address this waste. Specifically, the Mineral Leasing Act of 1920 (MLA) requires the BLM to ensure that lessees “use all reasonable precautions to prevent waste of oil or gas...” (30 U.S.C. 225). While oil and gas production technology has advanced dramatically in recent years, the BLM’s requirements to minimize waste of gas have not been updated in over 30 years. The BLM believes there are economical, cost-effective, and reasonable measures that operators should take to minimize waste, which will enhance our Nation’s natural gas supplies, boost royalty receipts for American taxpayers, Tribes, and States, and reduce environmental damage from venting and flaring.

EPA has finalized regulations under the Clean Air Act to reduce methane emissions from certain new, reconstructed, and modified oil and gas production activities. While these requirements will have the effect of reducing some losses of gas as well, the EPA requirements are not aimed directly at waste and would not fulfill the BLM’s statutory responsibilities. For example, unlike the proposed BLM regulations, the proposed EPA regulations do not address gas losses through flaring, and do not address gas losses from existing sources, unless the existing source is modified or reconstructed (as defined by EPA).

- b. Related to this question, can you describe the consultation that the BLM has undertaken with EPA, and with the state regulatory agencies with Clean Air Act authority in the states with operations on BLM lands?

Answer: The BLM has engaged in substantial stakeholder outreach in the course of developing the proposal. In 2014 and 2016, the BLM conducted a series of forums to consult with tribal governments and solicit stakeholder views to inform the development of the proposed rule (2014) and to discuss the proposed rule after publication (2016). The outreach included tribal and public meetings (some of which were livestreamed) in Colorado (2014/2016), New Mexico (2014/2016), North Dakota (2014/2016), Washington, D.C. (2014), and Oklahoma City (2016)[1]. For each forum, BLM held a tribal outreach session in the morning and a public outreach session in the afternoon. The BLM also accepted informal comments generated as a result of the public/tribal outreach sessions (2014).

The BLM also consulted State regulators (both oil and gas regulators and air quality regulators) both while developing the proposal and since its issuance. Specifically, the BLM held discussions with regulators from: North Dakota (2014/2016), Wyoming (2014/2016), Alaska (2014/2016), Colorado (2014/2016), Utah (2014/2016), and New Mexico (2014) to discuss the States' rules and practices, their effectiveness, the States' recommendations with respect to the BLM rulemaking, and their views on the proposal. The BLM is continuing to hold further discussions with States, is looking forward to receiving detailed written comments from State regulators, and will take those comments into careful consideration in developing the final rule.

During the development of the proposed rule, the BLM and the EPA held regular discussions to share data and technical information, identify areas of potential overlap between the two regulatory efforts, consider ways to align the proposed rule requirements as much as practicable, and identify provisions where the BLM could exempt otherwise covered sources or activities because they are or are proposed to be subject to equally effective EPA requirements. Those meetings are continuing during development of the final EPA and BLM rules.

[1] Further information can be found at the BLM oil and gas program's outreach-events page: http://www.blm.gov/wo/st/en/prog/energy/public_events_on_oil.html.

Murkowski 13. Over the last few years the U.S. has undergone an energy renaissance which has created thousands of new well-paying jobs, made the U.S. more energy secure and less reliant on evil powers across the globe as well as make U.S. energy more affordable – just look at the cost of gasoline today – all while methane and GHG emissions have dramatically declined. During this same time BLM's permitting process continues to lag which is not only a lost opportunity for the benefits I just described, but also to the detriment of potential revenues to the Federal Treasury and the states. Additionally, the BLM has put out a number of regulations and proposals including the Hydraulic Fracturing, updates to Onshore Orders 3, 4, and 5, and the proposed venting and flaring rule. Each of these, separately and combined, could have real effects on U.S. energy production, jobs, revenues, etc. If the goal of the Climate Action plan is to decrease GHG emissions, does it make sense to propose a suite of regulations that will shut down U.S. natural gas production?

Answer: The common-sense and cost-effective rules BLM has proposed or finalized in the last two-plus years are an important component of its efforts to modernize its oil and gas program. These regulations - including the proposed updates to Onshore Orders 3, 4, and 5, the Hydraulic Fracturing Rule, and the proposed Methane and Waste Prevention Rule - are all necessary updates to 30-year old regulatory requirements that no longer reflect modern technology or practices. The BLM expects that these regulatory efforts will increase production and royalty accountability, enhance the safety of operations, and conserve resources, without harming U.S. energy production.

These rules often propose or adopt standards and practices developed by industry that are already being successfully employed by operators. Updating and clarifying the regulations will make them more effective, more transparent, and easier to understand and administer, which will benefit both industry and the public. The proposed and adopted changes will provide modern, effective regulation of oil and gas operations on BLM-administered leases, ensuring such

development occurs in an environmentally responsible way that provides a fair return to taxpayers.

Murkowski 14. For several years, the EPA has been working on the development of new requirements for compliance with elements of the Clean Air Act for oil and gas production operations. The process of developing new regulations for emissions from new sources has involved - indeed required - highly technical discussions, and has been characterized by regular opportunities for substantive discussion between EPA and the regulated industry. Why is the BLM undertaking its own separate rulemaking process?

- a. Did the BLM work with the EPA to make sure the two packages were not in conflict with one another? If so, why are there many examples of the two rules differing or the BLM requiring something the EPA determined was not necessary or cost prohibitive?

For example: BLM's inclusion of liquids unloading requirements when EPA has determined there is not a single cost-effective method that can address this source. Additionally, there are differences between survey frequency based on number of leaks (BLM) versus percent of components (EPA).

Answer: The BLM and the EPA have worked closely together throughout the rulemaking processes to ensure that the two regulatory packages are not in conflict with each other, as discussed in more detail in the response to Question 12a. In some cases the two rules are different because they are being adopted under different statutory authorities and they have different primary purposes.

For example, our understanding is that section 111 of the Clean Air Act requires the EPA to base its standards on an identified "best system of emission reduction." The EPA proposed that it could not identify a single best system of emission reduction that should apply in all situations to reduce emissions from liquids unloading. In contrast, the Mineral Leasing Act simply requires the BLM to ensure that lessees "use all reasonable precautions to prevent waste of oil or gas..." 30 U.S.C. 225. With respect to liquids unloading, the BLM has determined that there are multiple technologies and practices that would reduce gas losses from liquids unloading, depending upon the particular circumstances of the well. The BLM has not proposed to require operators to use specific technologies. Rather, the BLM has simply proposed a performance-based standard -- to prohibit liquids unloading through manual well purging from new wells -- allowing operators to choose the technologies or practices to apply to achieve this result.

Murkowski 15. What assurance do we have that the two agencies' efforts can be coordinated such that BLM's rulemaking will be informed by the EPA effort so that regulatory conflict is avoided?

Answer: The BLM and the EPA fully understand the importance of coordinating their approaches, have coordinated closely throughout the rulemaking processes to date, and are committed to continuing to coordinate until both rulemakings are finalized. As a practical matter, the EPA's rulemaking was finalized before the BLM's rulemaking, which allows the BLM to take EPA's final rule fully into account before finalizing the BLM's rule.

Murkowski 16. How do these rules interact with the state’s own efforts on methane? What consideration did you give the state programs? Is there a scenario where projects will need to comply with a state methane program and regime, a different BLM methane program and regime and a different EPA methane program and regime? Is that necessary and reasonable?

Answer: As discussed in the response to Question 12.b., the BLM has reached out to many States to gain an understanding of State regulations and the States’ experiences with their regulations. In fact, many of the provisions in the proposed rule track elements of effective State programs.

The BLM has also constructed its proposed rule to address concerns about the potential for multiple applicable regulations. To minimize any overlap with EPA regulations, the BLM proposed that sources meeting the EPA requirements would either be exempt from the BLM rules altogether, or be permitted to demonstrate compliance with the EPA requirements in lieu of meeting the BLM requirements, depending on the specific requirement. In addition, the BLM and the EPA proposed to align their requirements to a very significant degree and aim to further align the final rules, to the full extent consistent with legal authorities and with consideration of comments received.

With respect to State rules, the BLM proposed specific provisions to allow variances from one or more BLM requirements where one or more State requirements are equally or more effective.

Murkowski 17. How does the cost-benefit analysis hold up when there are a lot of legacy producing wells that would cost more to comply with these proposals than the energy that is produced which would then result in production being shut-in? Would this mean that DOI loses in royalty revenue?

Answer: The proposed rule includes several exceptions and alternative limits that would apply if implementing provisions of the rule would impose such costs as to cause the operator to cease production and abandon significant recoverable oil reserves under a lease. The Regulatory Impact Analysis for the proposed rule projects that the rule would produce modest increases in both gas production and royalties.

Murkowski 18. In January, a magnitude 7.1 earthquake hit Alaska. Though a handful of families lost their homes, damage was limited because the earthquake occurred away from populated areas. Alaska’s history demonstrates clearly, however, that we are not always so fortunate.

- a. In 2000, congress authorized the Advanced National Seismic System to “establish and maintain an advanced infrastructure for seismic monitoring throughout the United States that operates with high performance standards ...” A decade and a half later, many of the baseline performance standards set by this program have not been achieved in Alaska. As other states with high earthquake hazard move on to advanced technologies, such as earthquake early warning, what is the Department doing to make sure Alaska has access to the instrumentation, technology, and funding needed to expand and modernize the seismic infrastructure?

Answer: In the past 15 years, the USGS has invested in earthquake monitoring and reporting, seismic hazard assessment, and other earthquake loss reduction activities in Alaska, and collaborates with several groups in the state. The USGS supports the Alaska Earthquake Center and the University of Alaska - Fairbanks (UAF), our regional seismic network partner in the state, at about \$600,000 per year. The USGS also supports the Anchorage Strong Motion Network, a collaborative effort among the USGS National Strong Motion Project, the Alaska Volcano Observatory (a joint center of the USGS, UAF, and Alaska Division of Geological & Geophysical Surveys). The network consists of more than 30 free-field stations, a borehole site, and several instrumented buildings and bridges. USGS monitoring investments in Alaska also include USGS National Network stations, and the services provided by the USGS National Earthquake Information Center.

In recent years, the USGS invested in improvements to the Anchorage and Alaska regional seismic networks. For example, in 2010, USGS made an award to the UAF of \$483,000 plus seismic equipment for upgrading these networks. The USGS has also invested in improving the Anchorage monitoring infrastructure. As a result of these improvements, high-quality data on how shaking varied across the Anchorage urban area were successfully collected from the January 2016, magnitude-7.1 earthquake. The USGS has also supported the Delaney Park geotechnical array in Anchorage, operated by the University of California, which provides field observations of earthquake activity and uses these observations as control data for testing models and simulation techniques.

- b. Language was included in the FY16 omnibus for USGS to conduct a cost benefit study related to earthquake monitoring for Alaska. Please tell me what the status of that report is and when we may be able to expect to see some of the findings?

Answer: A working group has been formed to conduct a cost-benefit study for monitoring improvements in Alaska: the study will be released in the fall of 2016 or before. The working group will evaluate the costs and benefits of seismic station adoptions, earthquake early warning, as well as improvements to existing monitoring operations. USGS will use the results of this study in its planning for future investment in seismic monitoring in Alaska.

- c. President Obama's 2013 arctic strategy document emphasizes cooperative efforts with the State of Alaska to respond to natural and man-made disasters. In the last two years there have been significant swarms of earthquakes in the Bering Sea, Northwest Alaska and the Arctic National Wildlife Refuge. How does the Department intend to engage with the State of Alaska to develop earthquake mitigation strategies for the Arctic region?

Answer: The USGS is a member of the four-agency National Earthquake Hazards Reduction Program (NEHRP) partnership, but developing earthquake mitigation strategies are primarily the responsibility of the National Institute of Standards and Technology and Federal Emergency Management Agency. As a member of the NEHRP, the USGS conducts and supports targeted geoscience research investigations on earthquake causes and effects; produces seismic hazard maps and assessments; monitors and reports on earthquakes and shaking intensities; works to improve public understanding of earthquake hazards; and coordinates post-earthquake reconnaissance carried out and supported by NEHRP agencies and other organizations.

Murkowski 19. The President’s proposal includes an increase of \$8.8 million for USGS activities related to the Arctic.

- a. Could you provide more detail on the Department’s Arctic priorities, particularly as they relate to the Administration’s “Implementation Plan for its National Strategy for the Arctic Region”?

Answer: On May 10, 2013, the President issued the National Strategy for the Arctic Region (Strategy). The accompanying Implementation Plan set forth the methodology, process, and approach for executing the Strategy. The Implementation Plan follows the structure and objectives of the Strategy’s three lines of effort:

- Advance United States Security Interests
- Pursue Responsible Arctic Region Stewardship
- Strengthen International Cooperation

The Implementation Plan reflects the reality of a changing Arctic environment and upholds national interests in safety, security, and environmental protection, and works with international partners to pursue global objectives of addressing climatic changes. The Implementation Plan complements and builds upon existing initiatives by Federal, State, local, and tribal authorities, the private sector, and international partners, and focuses efforts where opportunities exist and action is most needed.

Under the Implementation Plan, the Department’s priorities include:

- Ensuring the safe and responsible exploration and development of onshore and offshore Arctic non-renewable energy resources in an environmentally sound manner;
- Implementing Integrated Arctic Management and employing management approaches, such as ecosystem-based management, to enhance good governance to provide for sustainable economies in the region, ensure long-lasting benefits of balanced ecosystems, and preserve cultural activities of the people that depend on the Arctic environment; and,
- Coordinating and integrating terrestrial ecosystem research to increase the understanding of geophysical and ecosystem responses to a changing climate and to inform management decisions and subsistence uses.

The Department continues to study offshore environments, evaluate energy development and spill response capabilities, and to promote safety across all energy development activities. In cooperation with the State of Alaska and Alaska Native organizations, the Department is also encouraging use of Integrated Arctic Management, a science-based, whole-of-government approach for stewardship and planning, that integrates and balances environmental, economic, and cultural needs and objectives.

The Department is also a member of the Interagency Arctic Research Policy Committee (IARPC) to advance research in areas of common interest to member agencies. The IARPC 2013-2017 research plan was drafted with contributions from all IARPC agencies with public involvement. The plan, which is currently being updated, intentionally builds on the strong

intellectual accomplishments and ideas of the research community at the Federal, State, local, and tribal levels as well as inclusion of ideas from the academic community, non-governmental organizations, and industry. As an IARPC member, the Department is engaged in answering key research questions such as determining the impact of diminishing permafrost on Arctic ecosystems and inhabitants.

The 2017 budget request for the Department's activities in the Arctic is \$160.6 million, an increase of \$15.8 million above the 2016 enacted level. The request for USGS includes increases totaling \$9.8 million, which includes \$8.8 million in Arctic funding and a net addition of \$1 million primarily for Alaska map modernization that will be applied to the Arctic. Across the USGS, these increases will be used to analyze the impacts of a changing climate, including changing distributions of fish and wildlife populations, the melting of glaciers and the resulting impact to fresh water resources; to analyze the risks posed by sea-level rise to coastal communities; and to develop predictive models.

- b. Also, can you provide specific details about the type of research and activities that would be conducted if this funding were approved? For example, will these activities improve our understanding of the continental shelf offshore Alaska's north coast?

Answer: With these increases, the USGS will support research and development efforts focused on the Arctic through a multidisciplinary approach designed to both individually understand and holistically evaluate ecosystem processes and interactions in the Arctic to provide the objective science needed for effective management of Arctic resources. Additionally, an increase of \$1.5 million within the National Geospatial program for Alaska map modernization will be used in the Arctic region and a proposed decrease in the Mineral Resources program reduces Arctic spending by \$500,000. Including the Alaska map modernization funding to be used in the Arctic, the President's budget request includes an increase of \$9.8 million for USGS Arctic activities.

The increase of \$1.0 million in the Environments Program in the Ecosystems Mission Area will be used to analyze changes in fish and wildlife population distribution and habitats. Additionally, the program will use computer simulations to improve strategies for estimating polar bear populations from data gathered in Western Hudson Bay, the Chukchi Sea, and the Southern Beaufort Sea.

The increase of \$500,000 for the DOI Alaska Climate Science Center and other related programs will develop a process to estimate total glacier loss in Alaska and any changes in freshwater input. These and other forecasts will improve understanding of effects on river systems and ecosystem dynamics that affect economically and culturally important species such as salmon and caribou. The funding would build upon other research investments in interior Alaska to better understand the potential for larger scale and more frequent effects of ecological drought in the region.

Additionally, the increase of \$1.9 million in the Climate and Land Use Change Mission Area's Land Remote Sensing Program is to develop predictive models for permafrost melt. Using remote sensing data from satellites and airborne systems, in combination with field-based

studies, this work will prepare Arctic communities for the effects of the thawing land beneath them and improve global climate modeling.

The increase of \$3.5 million in the Coastal and Marine Geology program within the Natural Hazards Mission Area accelerates work for underserved communities dealing with impacts of sea level rise, severe storms and melting permafrost on their coastal communities and economies. The cost of field studies in these large and remote areas, the lack of baseline data, and the poorly understood dynamics of ice-bound and permafrost coasts limits the availability of coastal change tools to benefit Alaskan communities. The increase will accelerate bringing Arctic communities the tools available to open-ocean coastal regions of the coterminous United States. The investment will improve coastal change models for forecasting and assessing vulnerability over the next 10–25 years.

The increase of \$2.0 million for the Water Resources Water Availability and Use Science Program will address interactions among water-mediated processes in a warming Arctic and assess system feedbacks (e.g., effects of warming on hydrology and biogeochemical cycling, which subsequently affects climate and hydrology). The program will investigate methods that allow extrapolation from monitored to unmonitored locations and expand monitoring of sentinels of change, including permafrost temperature, streamflow, and materials exported from watersheds.

Within base funding, continued analyses of geologic data resulting from the joint USGS-NOAA-Department of State effort to define the limits of the Extended Continental Shelf will result in enhanced understanding of the continental shelf, slope, and Arctic Ocean basin. Analyses of these data, and data from surveys supported by USGS-DOE investigations of methane gas hydrates, will enhance our understanding of the stability of the continental shelf and slope and the potential for and consequences of hydrate release in response to changing oceanographic conditions.

- c. Will the research improve our understanding of the resource potential for new oil and gas discoveries, as well help us understand how to minimize the risks of utilizing those resources?

Answer: The USGS Energy Resources Program conducts oil and gas resource assessments across the Nation. The program has several active projects in the Arctic, including research on unconventional oil and gas (UOG), which will continue with base program funds. These continued studies of shales and other tight formations on the Alaskan North Slope will help underpin more accurate resource assessments and reduce the uncertainty associated with resource development.

The 2017 President's budget proposes several increases for unconventional oil and gas research across the Nation, including \$1.0 million for the USGS Energy Resources Program, a portion of which will support field research in Alaska to assess undiscovered UOG resources on the North Slope of Alaska. This additional funding will provide for field research in Alaska on an annual basis instead of the current research cycle of every other year, allowing more comprehensive data collection and accelerating assessments.

The proposed increase for the program's unconventional oil and gas research will better characterize environmental and operational risks posed by oil and gas development (e.g., the mitigation of produced waters derived by oil and gas production), and the increase supports research and field work activities to lessen the statistical uncertainty associated with resource potential estimates, allowing efficient, environmentally responsible development. The increase for unconventional oil and gas continues leveraging capabilities with the Alaska Department of Natural Resources in support of these field studies.

The USGS Coastal and Marine Geology Program will conduct studies to provide actionable science to respond to changes along the Arctic shoreline, and help inform decisions with respect to infrastructure and development associated with development of energy resources.

Murkowski 20. The federal government and the state are joint partners in the Alaska Mapping Initiative, with the goal of improving the topographic maps for the state. Some of the maps are over 50 years old and vital to aviation safety, land use planning, and research. The President's FY2017 budget proposes to increase funding for this program by \$1.5 million.

- a. If the President's proposed increase of \$1.5 million is included in the FY2017 appropriations bill, that would bring this initiative to a total program funding level of \$6.7 million. At that rate, how long would it take to complete the maps?

Answer: Alaska has many broad mapping needs, including topographic maps. The \$1.5 million proposed increase relates to topographic mapping supported/implemented by the USGS National Geospatial Program (NGP). With the proposed increase and continued funding from our Federal partners, we estimate that it would take 5 years (2021) to complete statewide coverage of ifsar elevation data and 6 years (2022) to complete the statewide topographic maps for Alaska.

- b. What percentage of the state now has updated maps and what areas pose the most challenges for mapping?

Answer: As of March 2016, 15.6 percent of Alaska has published topographic maps. The NGP's most challenging areas for collecting and assembling high-quality elevation map data for Alaska include low-lying coastal deltas with complex lake and river systems, the Aleutian Islands and other remote islands in the Bering Sea. Other challenges include expensive aircraft mobilization costs, limited time over the acquisition targets, and severe weather conditions.

- c. Will these maps be available in digital form and how accurate will they be compared to topographic maps in the Lower 48?

Answer: All Alaska topographic maps are available online in digital format (geoPDF). The data are free and the public can easily use this file type across multiple platforms (desktop, web, and mobile). Anyone can upload the data into digital mapping/ spatial analysis software to build new applications for research, education, or industry.

USGS follows the same procedures used for map production for the lower 48 in compiling new maps for Alaska. The elevation data accuracy for the Alaska topographic maps (produced at a scale of 1:25,000) is the same for topographic maps for the lower 48 states which follow USGS' National Map Accuracy standards for 1:24,000 scale mapping. With current funding, USGS corrects major errors for the majority of Alaska map production and we have updated approximately 10 percent of the State hydrography to meet higher specifications, where State funding contributions have supported these efforts.

Murkowski 21. The United States Geological Survey operates the Alaska Volcano Observatory, a joint entity with the University of Alaska. USGS operates five such observatories in the Western US. The observatory maintains a series of seismic monitors on volcanoes in Alaska, largely on the Alaska Peninsula and the Aleutian Chain, near the air corridor for flights to America from Asia. Ash from eruptions is particularly dangerous to such flights as shown by the near crash of a jumbo jet years ago.

- a. The President's FY2017 budget proposes a very small increase for the Volcano Hazards Program, \$117,000 for fixed costs, even though the entire USGS budget request is an increase of 10%. I understand there has been some progress made on the repair and monitoring systems on Alaska Volcanoes and I appreciate the good work that is being done there, but I am afraid we are not doing enough. It was also brought to our attention that the good work we are doing now to repair these systems may not be in compliance with the changing Federal Communications Commission (FCC) regulations over radio frequency spectrum allocations.

Answer: USGS radio telemetry networks fall under the jurisdiction of the National Telecommunications and Information Administration (NTIA) for spectrum allocation. Telemetry networks at most Very High Threat volcanoes in Alaska (Spurr, Redoubt, Augustine, and Makushin) are nearly compliant with NTIA spectrum allocation regulations. The Alaska Volcano Observatory (AVO), operated by the USGS in partnership with the University of Alaska and the Alaska Division of Geological and Geophysical Surveys, is focused on achieving full network compliance at these volcanoes as soon as possible. As part of ongoing maintenance and repairs, the USGS typically converts six to eight stations per year from analog to digital.

To address near-term public safety concerns, the USGS used funding received in 2015 to bring defunct and severely impaired networks back on line. This required maintenance of existing analog telemetry links that USGS cannot use past 2020.

- b. Are you familiar with the FCC spectrum allocation issue? Are the systems we are repairing in compliance with the FCC regulations or are we repairing a system that will need to be converted to digital in the next few years?

Answer: USGS radio telemetry networks fall under the jurisdiction of the National Telecommunications and Information Administration (NTIA) for spectrum allocation. Changes to the spectrum guidelines and allocations made USGS analog telemetry networks for volcano monitoring in Alaska non-compliant. NTIA authorization permits USGS to use the deprecated

frequencies until 2020, which provides time to bring the system into compliance by transitioning the networks to new digital technology operating on an authorized spectrum.

As part of ongoing repair and maintenance, the USGS makes analog to digital conversions when possible. This typically results in converting six to eight stations per year. To address public safety concerns, the USGS used fiscal year 2015 funding to bring defunct and severely impaired networks back on line. Bringing the networks back on line required maintenance of existing analog telemetry links that the USGS cannot use past 2020.

c. Could you provide this committee with the current gaps in the monitoring infrastructure at the Alaska Volcano Observatory and the estimated costs to complete the monitoring system?

Answer: The USGS has identified five Very High Threat and 27 High Threat volcanoes in Alaska. None of these 32 volcanoes have complete monitoring networks by the USGS standards for the National Volcano Early Warning System (NVEWS) and none of the existing networks are compliant with National Telecommunications and Information Administration (NTIA) regulation and guidelines for spectrum allocation.

The USGS has until 2020 to achieve compliance with the NTIA regulations. Telemetry networks at most Very High Threat volcanoes are nearly compliant. The estimated cost of upgrading to a NTIA-compliant system is \$18.5 million over four years over current funding levels. Completing the conversion in three years, instead of four, would increase the cost to \$20.2 million, with the increase necessary to fund additional staff to complete the work at the accelerated pace.

Additionally, to fully reach the USGS standards for NVEWS for the 32 Very High Threat and High Threat volcanoes in Alaska, the USGS estimates 237 additional monitoring instruments (e.g., seismometers, GPS receivers, and remote cameras) are required. The chart below describes the current monitoring capabilities of the USGS in Alaska. The average cost of deploying an instrument on an Alaskan volcano is approximately \$90,000. The total estimated cost to bring Alaska's volcano monitoring networks up to NVEWS standards is \$21.3 million (\$4.4 million for the five Very High Threat volcanoes and \$16.9 million for the 27 High Threat volcanoes). This includes all aspects of installation, including instrument procurement, logistics, power systems, data telemetry, instrument housing, and permitting, but does not include the cost associated with the telemetry upgrades needed for NTIA compliance. The telemetry upgrades are necessary to support the new instrumentation. In most cases, NVEWS-guided augmentation with additional instruments would proceed in tandem with the analog-to-digital conversion work.

Upgrading the monitoring system to NTIA compliance and completing the monitoring system to NVEWS standards would cost an estimated \$39.8 to \$41.5 million in total.

Current Monitoring Level	Current Monitoring Level Capabilities	Number of Volcanoes	
		Very High Threat	High Threat
None	Eruptions detected after the fact by satellite or direct observation. Eruption forecasting is not possible. No research potential.	0	4
Minimal	Significant eruptions likely detected, but small events missed. Eruption forecasting is not possible. Little if any research potential.	0	5
Limited	Most eruptions detected. Forecasting possible under ideal circumstances. Sensor data of limited usefulness for research.	1	17
Basic	Nearly all eruptions detected and some successfully forecast. Sensor data have research potential.	4	1
Complete	All eruptions detected and most successfully forecast. Sensor data have excellent research value.	0	0
Totals:		5	27

Murkowski 22. In 2014, Congress passed the BLM Permit Processing Improvement Act of 2014.

a. How has the passage of the legislation impacted permit timelines?

Answer: The higher application for permit to drill (APD) fee of \$9,500 and associated allocations to the particular BLM offices went into effect on October 1, 2015. The increased fee has the ability to generate additional revenue, and therefore provide increased resources for processing permits, all other things being equal. However, because of market forces beyond the BLM's control, most notably the recent steep drops in the price of natural gas and oil, there has been a significant drop in the number of APDs submitted, which has reduced revenues coming to BLM for APD processing. Based on the past six month's observation, the BLM has not seen any overall impacts to the permitting timeline as a result of the Act. That said, over the past 4 years, the BLM has made significant progress in reducing the time to process an APD - permit times have dropped from an average of 307 days in 2011 to an average of 220 days in 2015.

b. The reauthorization also required BLM to report to Congress by February 1 each fiscal year the allocation of funds to each office and the accomplishments of each office. Where is that report?

Answer: The BLM has prepared a draft report for FY 2015. This report is in the Department of the Interior review process and will be submitted as soon as that process has been completed.

Murkowski 23. Over the last several years the Department of the Interior has proposed or finalized a number of offshore and onshore rules and regulations including the BLM hydraulic fracturing rule, updates to BLM Onshore Order 3, 4, and 5, the BLM venting and flaring proposal, the release of BLM Land Use Plan Amendments that limit areas where oil and natural gas development can take place, changes to ONRR's civil penalty regulations, additional regulations to Arctic OCS operations as well as the proposed Well Control Rule, potential changes to onshore royalties, bonus bids, etc. Interior is also expected to propose updates to offshore air regulations and there are also a number of additional items included in the Unified Agenda that have not been proposed. All of this regulatory activity is taking place at a time

when investment on federal land oil and natural gas production continues to fall. Each of these items on their own may have a chilling effect on future investment and interest in federal production of oil and gas and taken together, the cumulative impacts could potentially alter not only production on federal lands but also government revenue as a result.

- a. Are you analyzing and considering the cumulative effect of each regulation on an individual basis as well as combined with the entire suite of regulations? How do you ensure that the Department adheres to its multiple-use mandate and continues to place great value on the oil and gas production on federal lands and the important revenues that come to the Treasury as a result?

Answer: The regulations being updated have not been revised for decades, and it is long past time to modernize them to reflect recent technological advances in oil and gas production, health and safety protection, and waste prevention. Reflecting reasonable and common-sense revisions to existing requirements, these regulatory updates incorporate modern industry practices and technology, and we therefore do not expect them to pose an undue burden on industry.

Consistent with federal requirements, the Department has conducted analyses of the economic effects of the rules and presented those findings in the Regulatory Impact Analysis for each rule. These analyses evaluate each rule individually, because there is so much geographic and operational variability in where and when the rules will apply, and whether and how they will impact operators. That said, a number of the new standards reflect existing industry best practices, with which many operators are already in partial or full compliance. Moreover, some of the measures will actually save producers money. Finally, many of the rules incorporate grandfathering or other provisions that are specifically designed to take account of operators' concerns about the rules' impacts, including impacts on lower-producing wells.

Murkowski 24. The decision by DOI to pull the Arctic lease sales in the 2012-2017 Five Year Program as well as the denial of lease term extensions was shortsighted and without justification. Access to oil and natural gas resources in the Alaska OCS is essential to the nation's economy and energy security and predictable leasing and workable regulations are necessary to take advantage of this vast resource. The Arctic contains the world's largest remaining conventional undiscovered oil and natural gas. Given the resource potential and long timelines required to bring Arctic resources to market, decisions made today will have an impact on industry's ability to provide the U.S. oil production of the future.

- a. How does the Department view the importance of Arctic resources and our need to continue exploration and development in the Arctic, especially as other nations continue to reap the benefits of Arctic development?

Answer: Alaska continues to be an important part of the Nation's energy strategy. BOEM estimates that there are more than 23 billion barrels of undiscovered technically recoverable oil in the Chukchi Sea and Beaufort Sea planning areas, including multiple geologic plays. This is based on information gathered from over 30 exploration wells drilled in the Arctic, seismic data, and analogous reservoir analysis.

Significant acreage in the Chukchi and Beaufort Seas is already under lease, including some of the best prospects. As of April 2016, there were 434 existing leases in the Chukchi Sea and 77 in the Beaufort Sea. In addition to the Liberty project that is currently under review, should DOI receive any exploration and development proposals from industry, we will review them to ensure safe and careful exploration and development in the Arctic.

Recognizing the significant oil and gas potential in the Arctic OCS region, industry interest, and the views of the State of Alaska, the 2017-2022 Proposed Program, published on March 18, 2016, schedules three potential sales offshore Alaska, one in each of the Beaufort Sea, Chukchi Sea, and Cook Inlet. The Department is soliciting comments on this proposal through June 16, 2016. In March, Director Hopper traveled to the North Slope of Alaska to get input on the proposed Five Year Program and the bureau will continue its outreach to encourage stakeholder and partner feedback from Alaskan communities. Comments received will inform the Proposed Final Program, scheduled to be published in late 2016.

In advance of any potential lease sale offshore Alaska, BOEM will continue to use scientific information and stakeholder and partner feedback to proactively determine which specific areas offer the greatest resource potential while minimizing potential conflicts associated with the environment, subsistence activities, and multiple use concerns.

- b. Does the Department's lack of regulatory uncertainty, which only becomes greater with the proposed Arctic rule and the proposed Well Control rule, play a part in the unsuccessful project last year?

Answer: Over the course of two different offshore drilling seasons, the Department has been transparent and consistent about what it will require to ensure drilling operations conducted in the Arctic are conducted in a safe and environmentally responsible manner. On September 28, 2015, Shell announced in a press release that it "found indications of oil and gas.... but these were not sufficient to warrant further exploration." This followed the 2015 drilling season, during which BSEE and BOEM approvals were conditioned on requirements consistent with many of the provisions contained in the proposed Arctic Rule. These requirements were similar to a number of the requirements that BSEE and BOEM imposed on Shell during 2012.

Murkowski 25. I am very concerned with the BOEM-BSEE proposed Arctic rule because it imposes prescriptive requirements, including the requirement for a same-season relief well, assuming that one solution universally applies to any given Arctic location. Instead, the rule should look to using performance-based rule which allow an operator to minimize risks by designing a well program specific to the landscape, ecosystem, ice conditions, water depths and weather of that particular well. The rule should focus on prevention and consider fit-for-purpose response planning alternatives to respond to potential loss of well control.

- a. What is the likely timing of the final Arctic rule? Do you believe that you have an opportunity to step back and take time to assess the Arctic rules package and examine the NPC report before putting out a final rule since you've closed the door on leasing in this current Five Year program?

Answer: BSEE and BOEM have closely considered the National Petroleum Council (NPC) Arctic Potential Study, as well as many other studies and resources. Representatives from BSEE were involved in the NPC Study and were aware of many of the technical discussions and analysis that occurred prior to publication. The Department is in the process of finalizing its Arctic drilling rule, which would apply to exploratory drilling operations in the U.S. Arctic. The Department is carefully considering all comments received on the Proposed Rule as it works to complete the rulemaking process. We intend to publish a Final Rule later this year.

- b. How will this timing match with the BSEE well control rule, which as you know will also apply in the Arctic? Would it make more sense to hold the Arctic rule's final release until after the well control rule is final and allow for comments to inform how both set of rules will affect the Arctic before finalizing and implementing?

Answer: The Department promulgated the Well Control Rule on April 29, 2016 (see 81 FR 25887). BSEE has carefully considered comments on each Rule and the potential overlaps between the two Rules.

- c. Has DOI taken a hard look at the NPC report and made agency adjustments or taken counsel from it?

Answer: Yes, the Department has reviewed the NPC Arctic Potential Study carefully, along with many other studies and analyses. Many of the findings are consistent with BOEM and BSEE's assessment of operations in the Arctic.

For example, the NPC study recommends that BSEE "[e]ncourage innovation by providing for the incorporation of technological advancements" (NPC Study, Executive Summary, p. 51). BSEE regulations specifically allow for approval of innovative technologies that provide equal or greater protection to personnel and the environment (30 CFR § 250.141). The proposed Arctic regulations clarify that this provision can be utilized to approve equipment for use in Arctic drilling operations.

Additionally, Chapter 10, entitled "The Human Environment," presents a detailed assessment of the effects of oil and gas activities in the Arctic on human health, economic development, and culture. BSEE agrees with the NPC's recommendations that industry, government, and stakeholders should work to preserve cultural sustainability, ensure food security, optimize consultation and community engagement, develop traditional knowledge studies, standardize socioeconomic impact assessment processes, and evaluate collaboration frameworks.

In some areas, BSEE does not agree with the study. Chapter 8 of the study, entitled "Arctic Offshore Oil Spill Prevention, Control, and Response," stressed the importance of prevention "as the primary defense against loss of well control." The chapter identifies a number of controls and barriers that should be in place to prevent oil spills in the Arctic. BSEE agrees that the identified barriers and controls are crucial to operators' prevention efforts. BSEE does not, however, agree that the implementation of prudent prevention measures should eliminate the need to have available equipment and/or a rig to respond to a loss of well control.

There are many other aspects of the NPC Study - both the findings and the recommendations - that are consistent with both the proposed Arctic offshore drilling regulations and with BSEE's overall approach to oversight of offshore drilling operations on the Arctic OCS.

Murkowski 26. The increased domestic oil and gas production we have been witnessing is occurring almost entirely on private and state lands where the federal government does not have control. This is because it can still take from 240 to as much as 300 days to get a permit to drill on BLM managed lands, and where it can take as much as 10 years to complete an environmental review. The Department has taken steps to expedite the permit process for projects on federal lands that involve renewables, or the infrastructure for renewables, but in the case of oil and gas resources the Department has increased permitting burdens.

- a. Can you explain the apparent discrepancy between how the Department treats permitting for renewable energy projects, and projects for the exploration and production of natural gas and crude oil?

Answer: Since 2008, oil production is up 108 percent on lands where drilling requires a BLM permit. This doubling of production is greater than the 88 percent increase in oil production that occurred on all lands nationwide during the same time period. In FY 2015, the BLM approved over 4,228 Applications for Permit to Drill (APDs) on Federal and Indian lands, yet industry only drilled 1,927 wells. The BLM also continued to make significant progress in reducing the time to process an APD - permit times have dropped from an average of 307 days in 2011 to an average of 220 days in 2015. The BLM also continued to make significant progress in FY 2015 at reducing the number of pending APDs. As of the end of the year, the BLM had roughly 7,500 approved APDs that have not yet been drilled, more than ever before. These APDs are ready for immediate use by industry without further action by the BLM.

To further build upon these improvements, the BLM continues to make strategic investments in technology to streamline the permit review process. Most notably, BLM recently completed the bureau-wide deployment of the update to its permit processing system, AFMSS II. That update will help streamline the review process and will allow BLM and applicants to better track the progress of individual applications. The BLM is committed to building on this progress and continuing to improve the APD review and approval process.

It should also be noted with respect to the BLM's treatment of permitting requests for renewable energy relative to oil and gas that much of the expedited process currently used for renewable energy projects is patterned directly on efficiencies developed in the oil and gas permitting context.

Based on its experience in the oil and gas program, the BLM took the following actions with respect to the Renewable Energy Management program:

- Established special permitting offices (Renewable Energy Coordination Offices),
- Improved early coordination with State and other Federal agencies, and
- Identified important energy zones and then completed comprehensive environmental analyses (i.e. Solar PEIS, Wind PEIS and the Geothermal PEIS), in order to provide

additional upfront analysis that could then be used to simplify the project-specific NEPA required for permitting individual development projects.

All of these processes were first developed and utilized for oil and gas. The processes used for both energy sources are largely driven by the same or similar land and environmental laws and procedures. The most expedited solar project approval occurred in the Dry Lake Solar Energy Zone in Nevada; utilizing these steps, the BLM took 300 days from lease sale to project approval.

Murkowski 27. On lands administered by the BLM there are thousands of older wells, many producing less than 15 barrels of oil per day. However, in the aggregate, this so-called “stripper production” represents several percent of America’s domestic crude oil production. In the past year, BLM has introduced four rulemakings (site security and commingling, measurement of crude oil, measurement of natural gas, venting and flaring) that taken together could significantly increase costs of operation on these older leases, possibly resulting in shutting in production.

- a. Is an agency like BLM that already struggles to issue permits to drill from companies holding BLM leases within 300 days, staffed and equipped to manage the expansion of its regulatory mandate?

Answer: The BLM has an obligation to ensure that operators accurately measure, properly report, and account for all oil and gas production, and reduce waste associated with that production. Yet the BLM’s rules governing oil and gas measurements and waste reduction have not been updated in over twenty-five years. As a result, the Government Accountability Office (GAO), the Office of the Inspector General, and the Department of the Interior Royalty Policy Committee have all concluded that these existing rules provide no assurance that production is being accurately measured, that all of the royalties due are paid, and that waste is minimized. The proposed rules also address the many new technologies that have been developed and adopted by industry since the current regulations were put in place.

That said, the BLM also recognizes that the royalty risk (i.e., the risk posed by inaccurate measurement from a particular well) at a given well is a function of its overall production level and that low level wells pose less of a risk than higher level wells. It is precisely this recognition that led the BLM to include in the proposed onshore orders thresholds that reduced the requirements applicable to lower volume wells. In some cases these proposed changes reduced the compliance burdens on low volume properties relative to existing requirements. Based on the comments received, the BLM is carefully evaluating those thresholds to see if further refinements are necessary to ensure that the burden imposed on any given facility by the new measurement rules is comparable to the royalty risk presented by that facility.

In addition, the Methane and Waste Prevention Rule includes some provisions to streamline implementation for both industry and the BLM. For example, the flaring provisions would reduce regulatory burden by eliminating the existing requirement to submit a sundry notice for each request to flare gas.

- b. Why is the focus of the Department and BLM on adding permit obligations for oil and gas operations when on the contrary the Department's focus is on expediting permitting for renewable energy?

Answer: As part of the Administration's All-of-the Above Energy Policy, the BLM manages the public lands for both conventional and renewable energy. The BLM has a statutory obligation to balance this energy development with other use of the public lands and to ensure that the development occurs in an environmentally sound manner and provides a fair return to the taxpayers for use of those lands and mineral resources.

With respect to the permitting requirements for conventional energy development, the BLM is not adding permit obligations, but rather is proposing commonsense updates to its existing rules designed to ensure that operators accurately measure, properly report, and account for all production from Federal and Indian lands. The existing rules do not reflect modern technology or practices, and therefore, in some instances, require the review, submittal, and processing of unwarranted variance requests. These circumstances will be addressed by the final rule.

Murkowski 28. Not long ago, the Social Security Administration engaged in an aggressive program to obtain a new custom designed computer system to deal with disability claims. After spending over \$300 million, they had a very little to show for it. They had a program racked with delays and mismanagement, but no new working custom system. Likewise, the U.S. Citizenship and Immigration Services spent more than \$1 billion trying to replace its approach to managing immigration documents with digital online forms, and as of this fall it had only a single online form, the form to replace a lost green card online.

You're probably wondering what does this have to do with the federal land management agencies. But right now, as I understand the situation, those agencies are working to refurbish the federal government's campsite booking website, Recreation.gov, which hosts virtually all online booking for not only the National Park Service but also the U.S. Fish and Wildlife Service, the Bureau of Reclamation in addition to Forest Service campgrounds, and even many of the Army Corps of Engineers facilities. Many people use this online system every year, and if things go bad it could be a very big black eye for these land management agencies that could have broader impacts to the recreation fee program in general, particularly as we approach the Park Service Centennial.

I am asking for an assurance from you that you are going to do everything possible to make sure that any improvements to the online reservation system doesn't risk ending up with missed deadlines, and rollout delays caused by mismanagement and untested products or custom created software, like I mentioned. I hope you will work to ensure that the system will be dependable, time tested, secure and cost effective for the United States.

- a. Will you examine the situation and make sure that we are not headed down a pathway like those I mentioned?

Answer: The Recreation.gov contract is funded entirely by revenues generated from the recreation fees and reservation fees charged to visitors who make reservations. The current

contract that provides the reservation and trip planning service for Recreation.gov is nearing the end of the period of performance and will be extended as needed to ensure that there is no disruption of service.

In this digital age, software solutions should be designed not by software engineers writing code but by the people who will be using the system so that the final product truly serves the needs of the government and the people. It is also critical to ensure that the solution is nimble enough to adapt to emerging technologies throughout the life of the contract. The Recreation One-Stop (RIS) program has been conducting market research for over two years in order to identify emerging technologies and additional vendors who can provide the kind of service that meets modern customer expectations.

The RIS program has adopted the tenets laid out in the US Digital Services Playbook in which we will employ 'Agile' software development principles and processes. Agile development is the new norm in the private sector and, by following its best practices, we aim to provide a superior service and pleasant customer experience. This will entail face-to-face meetings with the contractor's program management and software development teams. We intend to work in short 'sprints' to write, test, and deploy usable code that will provide all of the tools for trip planning, reservations, financial processing, reporting, design, and customer service. As sprints are completed, we will test each portion of the code to ensure that it meets the government's needs and public expectations. Code that does not pass testing will be immediately identified for correction. By using this method, the RIS program will be involved at every step to ensure that we do not end up with an unusable product when it is time to transition. The public and many other stakeholders will be involved in the development and testing throughout this process to ensure that we are able to deliver what the public wants. The contract requirements include the highest levels of information security, privacy protection, secure financial processing, and compliance with all applicable laws and regulations pertaining to government IT services.

b. As a way to ensure data security indeed does meet the highest standard, will you be using people who are Payment Card Industry Data Security Standard (PCI) compliant?

Answer: Payment Card Industry Data Security Standard (PCI) compliance is an absolute requirement in the new (and current) contract. With the number of credit card transactions processed, the contractor's system is required to meet the highest level of PCI compliance.

The contractor must also deliver security that ensures compliance with the Federal Risk and Authorization Program (FedRAMP), Federal Information Processing Standards (FIPS), Federal Information Security Management Act (FISMA), and the Privacy Act.

Murkowski 29. While many land management agency units are available as part of Recreation.gov, we know there are additional units that could take benefit from additional exposure. What are you doing to make sure more of your units are able to be part of the recreation.gov system and timeframes for bringing them online?

Answer: Recreation.gov currently hosts reservation services for over 3,200 locations which include campgrounds, picnic shelters, cabins, lookouts, yurts, tour ticketing, event lotteries, and a

variety of wilderness permits. More locations continue to be added every year. When the system was launched in 2006, the primary focus was to provide reservations for basic front country campgrounds. Since that time, the RIS program recognized the need to expand the service to cover many different types of facilities and activities. This was one of the driving factors in moving to a more agile approach that affords the agencies the flexibility to use the platform for a wide variety of facilities and activities.

The RIS program expects that, upon launch of a new contract, the service will be able to support many more operations; this should facilitate the incorporation of reservation services more broadly. The new contract also requires that the contractor proactively ‘market’ the service to all agencies where it is appropriate. This includes offering web services which can improve the efficiency and effectiveness of local operations.

Murkowski 30. What, if any, human resources planning has OSMRE done in preparation for or in advance of the proposed Stream Protection Rule?

Answer: OSMRE typically makes human resource planning decisions based upon on the overall workload for the entirety of its regulatory and oversight program. The actual staff number may change depending on the program areas, the presence or absence of problems, input from the public, and the terms of the performance agreements in each State. The estimated annual hours for federal oversight of the proposed Stream Protection Rule does not warrant any additional human resource planning.

Murkowski 31. Which, if any, employment assignments or employee deployments have been made as a consequence of the Stream Protection Rule?

Answer: OSMRE has not found it necessary to make new assignments or employee deployment changes as a consequence of the Stream Protection Rule.

Murkowski 32. Does OSMRE employ any “hydrogeologists”?

Answer: OSMRE currently has about 15 highly qualified technical staff classified under the “hydrologist” title. All have formal education, experience, and technical credentials in the area of surface and groundwater hydrogeology.

Murkowski 33. What, if any, human resources planning has BLM done to satisfy mitigation measures, both those created by the Presidential Memorandum and the Department’s own mitigation manual and efforts?

Answer: In the fall of 2013, Secretary Jewell released Secretarial Order 3330, Improving Mitigation Policies and Practices of the Department of the Interior. Secretary Jewell directed the Department and each of its bureaus to follow a common set of principles for its mitigation programs while using a landscape-scale approach building on and expanding concepts pioneered in the BLM’s 2013 interim mitigation policy. Consistent with Secretarial Order 3330 and incorporating key lessons learned since release of the interim mitigation policy, the BLM is working to revise and finalize its mitigation policy to ensure it is responsive to emerging best practices and compatible with similar policies being developed by sister agencies and States.

Secretarial Order 3330 and the BLM's interim mitigation policy address concepts that broadly apply to mitigation—including principles of additionality, durability, and transparency—without prescribing the amount of mitigation that might be required for any given project. In general, the BLM will continue to identify appropriate mitigation measures by evaluating the specific impacts of each project proposal, in light of applicable BLM land use plans and in compliance with the National Environmental Policy Act (NEPA).

Mitigation broadly refers to a set of tools that allows the BLM to permit projects while responding to the concerns of local communities and meeting our mission of multiple use and sustained yield. For many years, the BLM has recognized a need to bring greater consistency to the use of these tools and to increase their availability to solve resource challenges like supporting development while planning for the recovery of the Greater sage grouse. Accordingly, the BLM has sought to better plan and train staff to help support the implementation of mitigation policies that will allow for more streamlined permitting, more consistent application of mitigation across offices, and better outcomes for resources. This includes identifying a national mitigation lead in the Washington Office as part of the agency's resource planning and decision support staff to ensure greater consistency and identifying State mitigation leads in each State Office to provide expertise as well as a consistent point of contact for State governments seeking to coordinate with the BLM on mitigation efforts. Already, State governments across the West are working with the BLM and our Federal partner agencies to establish and deploy some of these innovative tools. The BLM seeks to further support these collaborative efforts.

Murkowski 34. Which, if any, employment assignments or employee deployments have been made as a consequence of the new mitigation efforts? If the answer is that mitigation efforts have had no human resource planning or employment consequences, please explain why that is the case.

Answer: As noted above, the BLM has identified a national mitigation lead to bring greater consistency to our efforts and has identified state mitigation leads to provide stronger State-level expertise and coordination with State governments. The BLM has long considered mitigation through the agency's routine resource management planning process and through individual project reviews as appropriate, and that will continue to be the case.

Murkowski 35. What vacancies does the Department currently have, and what are the Department's plans or intentions to fill those vacancies?

Answer: The BLM has not increased staffing levels to address mitigation efforts. However, staffing has been reorganized to meet the requirements of the Presidential Memorandum and the Department's mitigation work. This reorganization includes identifying one position on the Washington Office staff for the role of national mitigation lead. This position is currently being advertised on USAJOBS. At the State level, mitigation leads are assigned as a collateral duty and these are not new positions. At the field level, mitigation functions are generally performed by BLM's existing planning or project management specialists.

Murkowski 36. The BLM's draft updated planning rule, known as Planning 2.0, seeks to updated the agency's planning process.

- a. One of the frustrations frequently expressed by public lands communities regarding the planning process is that the BLM takes their comments, but does not truly consider the needs of the area, particularly when it comes to projects that potentially provide opportunities for economic development. How will the new rule improve BLM's coordination with state, county, and local governments? Will there be certainty for the manner in which BLM will consider the needs of state, county, and local governments.

Answer: The proposed rule would improve coordination with State, county, and local governments by requiring communication and coordination early in the planning process. Two new steps would include (1) input into the development of the planning assessment and (2) review of the preliminary alternatives, rationale for alternatives and basis for analysis prior to issuance of the draft plan.

During the planning assessment the BLM would coordinate with State and local governments to identify the best available data for the planning area. BLM frequently hears from our State and local partners that they often have the best data for a resource and they want to ensure that BLM uses this data. This proposed step would respond to these requests and ensure early coordination on data and information sharing. During this step the BLM would also coordinate with State and local governments to identify existing State and local land use plans to begin to seek consistency between local land use plans and BLM's Resource Management Plans (RMPs).

Once BLM has developed a preliminary range of alternatives, the BLM will make these preliminary alternatives and rationale available to State and local partners for review. This new coordination step will allow State and local governments to provide early feedback to the BLM on the alternatives and whether the range of alternatives adequately considers the needs of State and local governments. The BLM will use this feedback to revise the alternatives and develop a draft resource management plan that is more responsive to the needs of State, county, and local governments.

Murkowski 37. One of the goals of Planning 2.0 is to "improve the BLM's adaptability to respond to social and environmental changes." What types of social change does the BLM need a new rule in order to adapt to? Also, what types of environmental change require the new rule?

Answer: The proposed rule would provide the BLM the tools necessary to respond to both social and environmental change in an efficient and effective manner. Examples of social change that affect the public lands include the increased demand for recreation on public lands, changes in the composition and needs of local communities, or new emerging markets such as the increasing demand for renewable energy development on public lands. Examples of environmental change that affect the public lands include severe drought, catastrophic wildfire, or changes in plant community composition due to invasive species or pest infestations.

Murkowski 38. I've made no secret about my concerns with this Administration's practices relating to mitigation. The President's Memorandum entitled, Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, coupled with your Secretarial Order 3330 on mitigation have only served to further my initial apprehension.

The President's Memorandum mandated that, "[w]ithin 1 year of the date of this memorandum, the Department of the Interior will develop program guidance regarding the use of mitigation projects and measures on lands administered by bureaus or offices of the Department through a land-use authorization, cooperative agreement, or other appropriate mechanism that would authorize a project proponent to conduct actions, or otherwise secure conservation benefits, for the purpose of mitigating impacts elsewhere."

- a. Is there a status update as to where the DOI and its relevant agencies are in the development of program guidance?

Answer: The Department is working diligently on the policies required by the Presidential Memorandum (PM), including the guidance document identified above. The primary work by the Bureau of Land Management (BLM) and the Department since the publication of the PM has been to finalize BLM's forthcoming mitigation handbook and manual.

Murkowski 39. I understand mitigation can be a great tool for land managers, but what authority does the Department have to require mitigation for projects on public lands under the Department's jurisdiction? And, to that end, what authority is there to require that mitigation meet a standard of benefit for natural resource damage?

Answer: The Department's authority to seek a net benefit in recommended or required mitigation actions is derived from the underlying statutory authority mandating the management of the impacted resource. Under these authorizations, the bureaus and offices of the Department are responsible for managing different resources and for different purposes.

For example, the Federal Land Policy and Management Act (FLMPA) mandates management of resources in accordance with the principle of sustained yield, which is defined as the "maintenance in perpetuity of a high annual or regular periodic output" of such resources. Where, for example, past practices have degraded resources so as to reduce their annual or regular periodic output to low levels, requiring that mitigation achieve a net benefit is consistent with the statutory mandate to achieve and maintain a high periodic output by restoring such resources to pre-degradation levels.

Murkowski 40. Along the same lines, given that much of the framework from the Presidential Memorandum reflects your own mitigation efforts stemming from your Secretarial Order 3330, please explain in detail what you hoped to achieve through your own mitigation efforts?

- a. How will those efforts would be implemented across your Department and with other Department sub-agencies and among sister agencies where mitigation efforts and/or natural resource impacts straddle multiple jurisdictions.

Answer: A stated goal of the Council on Environmental Quality and the Department in establishing new mitigation policies is the transparency, efficiency, and consistency such guidance will bring to permitting processes. Although a multitude of factors play a role in successful permitting and project development, mitigation principles espoused by these policies, such as efforts to produce better avoidance and the consideration of mitigation measures early in the permitting process, are intended to reduce permit times and create better outcomes for impacted resources.

To ensure the Department's ability to achieve these objectives consistently, bureaus and offices of the Department have established common frameworks to apply the mitigation hierarchy in the development of mitigation recommendations and requirements. The frameworks create consistency in how bureaus and offices implement mitigation in a number of important ways, including the use of a compensatory mitigation goal; a clear and stated preference when selecting between compensatory mitigation providers; use of standardized definitions and terms; and adherence to a consistent set of standards to ensure equivalency among compensatory mitigation providers, among others.

Murkowski 41. The Bureau of Land Management briefed the Senate on the Presidential Memorandum, and admitted to not having a rigorous understanding of impacts to subsistence use. Nevertheless, the Department assigned an \$8 million impact in the National Petroleum Reserve – Alaska (NPR-A). What metrics are used generally to determine dollar values associated with anticipated natural resource damage(s), and specifically, what metrics were relied upon to arrive at the \$8 million dollar cost in the NPR-A?

Answer: The Record of Decision for the Greater Mooses Tooth One Project included a voluntary contribution by ConocoPhillips Alaska, Inc. (CPAI) of \$8 million to a compensatory mitigation fund to address impacts to subsistence uses that were not sufficiently avoided or minimized in the decision -- in particular, encroachment of the project footprint into the established setbacks for Fish Creek and the Ublutuoch River. The Alaska National Interest Lands Conservation Act directs the BLM to specifically consider subsistence uses when reviewing projects and prohibits the BLM from approving projects with significant impacts that have not been adequately addressed (16 USC 3120 section 810). This contribution represents less than 1 percent of the cost estimate cited by CPAI for development of the project.

Murkowski 42. The Department's Budget Brief for 2017 notes "(r)esource management plans provide the basis for every BLM management action and are *necessitated* by changes in resource use and demands..." (emphasis added)

- a. What, specifically, are the changes in resource uses and demands that necessitate potential management of:
 - o 715,000 acres of the Fortymile and Mosquito Flats Area of Critical Environmental Concern (ACECs) in the Eastern Interior Management Plan;

Answer: Based on public comment on the Eastern Interior Draft Resource Management Plan (EIRMP)/ Environmental Impact Statement (EIS), the BLM considered changing the boundary of the proposed Fortymile Area of Critical Environmental Concern (ACEC) and designating a new ACEC on the Mosquito Flats, also in the Fortymile region.

The Fortymile ACEC (685,000 acres) is proposed for the purpose of protecting caribou calving and post calving habitat for the Fortymile caribou herd, and Dall sheep habitat. The Fortymile caribou herd is both a highly important subsistence resource in east central Alaska and an international resource, with a considerable portion of its historic range occurring in Canada. BLM-managed lands in the Fortymile region are used by Fortymile caribou for calving, post-calving, and winter range. The population and range of the herd is currently depressed compared to its historical extent. The herd was estimated at more than 500,000 animals in 1920, but currently numbers 50,000 animals. A cooperative planning effort, involving diverse interests in Canada and the U.S., focuses on the recovery of the herd in numbers and into historic range. Calving and post-calving habitats were identified as the most sensitive habitats by the Fortymile Recovery Planning Team. Additionally, the planning area is predicted to become warmer and drier with a likely rise in tree line. These changes will increase the importance of alpine and subalpine habitats for calving and year-round habitat. Focusing on limiting impacts to the most critical habitat areas is the most efficient strategy for maintaining this important resource.

The Mosquito Flats ACEC (30,000 acres) was proposed to protect a unique high elevation wetland. This wetland is atypical; the Mosquito Fork River flows over continuous sand beds that are uncharacteristically clean, light colored, well-sorted, and low in organics, suggesting the origin of the sand is likely from a past depositional environment, possibly related to eolian deposits of Pleistocene or later age. These wetlands are an important moose calving area and support BLM sensitive species, including nesting trumpeter swans and short-eared owls.

- Nearly 700,000 acres in the Sheefish Bering Sea-Western Interior Plan;

Answer: While developing the Bering Sea-Western Interior (BSWI) RMP, the BLM received a number of public comments and nominations from Tribes, advisory councils, and individuals regarding the increased importance of non-Salmon species due to the crash of the salmon population. Sheefish is one of the species specifically mentioned.

Sheefish were mentioned as being a culturally significant fish species along the Kuskokwim River. They are harvested for subsistence use by many, especially in the middle and upper river. Sheefish are often caught before salmon in the spring, and offer an opportunity for fresh fish early in the season. In recent years, salmon have been in decline and there has been an even greater shift in harvest patterns away from salmon and more toward whitefish and other salmon species. Sheefish spawning grounds have very specific needs and occur in small numbers on the Kuskokwim River. Sheefish spawn in relatively small and specific locations, and a section of the Big River located south of McGrath has been identified as a well-known spawning area for sheefish. Local residents depend on the fish and wildlife resources of this drainage. The local Athabaskan name for the river is “Zidlaghe Zighashno” which translates as “Sheefish Sparring (Harvest) River” and the river has been expressed as very important to local people.

A November 2012 ADF&G report on sheefish spawning grounds on the Kuskokwim River provides detailed information about documented spawning areas. The report shows three spawning locations on the Kuskokwim River for sheefish, located on the Tonzona, Middle Fork and Big River, all located in the upper Kuskokwim River area. Of these locations, there are BLM-managed lands near the Big River. The sheefish that populate the entire Kuskokwim River spawn in very discrete areas or, smaller tributaries of the main Kuskokwim River. Eighty percent of the sheefish spawning in the Kuskokwim River spawn in a 15.5 mile section of the Big River (Stuby, 2012, Alaska Department of Fish & Game (ADF&G) Report).

As a result of the local importance expressed in public comment and after review of the ADF&G studies, the BLM found there were relevant and important values and proposed the Sheefish ACEC to protect the sheefish spawning areas.

- Any of the over 6 million proposed acres in the Central Yukon Management Plan; and

Answer: The BLM is in the early stages of planning for the Central Yukon RMP and does not anticipate a final decision until 2019. There are approximately 1.8 million acres of existing ACECs in the Central Yukon Planning Area. These were designated in 1986 by the Central Yukon RMP and in 1991 by the Utility Corridor RMP. During scoping and public outreach in 2013-2014, the BLM received numerous nominations for new ACECs (approximately 3.7 million acres) and expansions of existing ACECs (approximately 1 million acres). Many of the nominations identify habitats of important subsistence species such as caribou, Dall sheep, and salmon. The Central Yukon interdisciplinary team members reviewed all ACEC nominations and BLM-managed lands in the planning area to determine whether any areas should be considered for designation as an ACEC. Team members also reviewed all existing ACECs and research natural areas (RNAs) to determine if the designations were still relevant. The interdisciplinary team determined that approximately 5.2 million acres met the relevance and importance criteria. These findings are published in the Central Yukon RMP website at: <http://www.blm.gov/ak/cyrrmp>.

To date, the BLM has only made determinations on relevance and importance criteria and not special management attention. If needed, the special management approach is determined by the resource at risk and the BLM implements the least restrictive management needed to protect the resource. These restrictions could be seasonal restrictions on an activity, or additional stipulations on permitted activities, or limiting off highway vehicle use to designated trails. While the special management needed could be a recommendation to close the area to mineral entry, this would only be the recommendation if a closure is necessary to protect the relevant and important resource at risk.

The BLM will further analyze potential ACECs during development of draft alternatives and in the Draft RMP/EIS. The BLM will allow for public comment on both the preliminary alternatives and the Draft RMP/EIS when reaching those stages of the planning process.

- Some of the proposed ACECs would result in the closure of the public lands to mining or other activities. Please articulate how the Department would satisfy its multiple-use, sustained yield mandate in the Federal Land Policy and Management Act if any of the ACECs proposals that contemplate a form of closure are finalized.

Answer: Areas of Critical Environmental Concern (ACECs) are specifically defined in the Federal Land Policy and Management Act (FLPMA) as “areas within the public lands where special management attention is required ... to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.” In FLPMA, Congress also directed that, “In the development and revision of land use plans, the Secretary shall...give priority to the designation and protection of areas of critical environmental concern...” in addition to the broader considerations of multiple use and sustained yield.

In addition to the specific discussion of ACECs, FLPMA sets a policy that the public lands be managed “in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor public recreation and human occupancy and use....”

FLPMA defines the term multiple use as “making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.”

FLPMA defines sustained yield as “achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.”

In the event that some ACECs are closed to the mining laws, the BLM will meet FLPMA’s multiple use mandate by allowing mining on lands outside of the those ACECs. For example, in the Eastern Interior RMP Fortymile Subunit, the agency preferred alternative recommends mining be allowed on more than half (70 percent) of the BLM-managed lands in the planning subunit. Should this alternative become the final decision, the BLM will meet the sustained yield mandate for caribou by designating ACECs for calving and post calving habitat.

- b. Please tell me what efforts the Department has made to apprise Alaskans, and specifically Fortymile placer miners, of developing management plans, individual obligations and new enforcement approaches?

Answer: The BLM uses a variety of methods to notify and engage the public in planning efforts and changes to policy and practices, depending on the issue and the scope of the impact. For many planning efforts, the BLM is required to publish notices to the Federal Register. However,

the BLM generally creates many more opportunities for public outreach than the Federal Register and is currently revising its planning regulations to include more robust public outreach and collaboration.

Other types of BLM actions require different levels of public involvement. Of recent concern was the development and implementation of the “mining IMs” in Alaska. These Instructional Memoranda (IMs) on mining reclamation and bonding are direction to staff on how to interpret the current mining regulations in 43 CFR 3809 in a consistent way. These IMs provide consistency in how the BLM evaluates reclamation performance and will provide miners with consistent methods for measuring reclamation success. The regulations that define reclamation standards have been in place since 2001.

In 2013 and 2014, BLM staff began discussions with miners and mining organizations on current practices that were not meeting reclamation performance standards. There have been many advances in the last 15 years since the regulations were developed and many of the past practices for rehabilitating fish, wildlife, and riparian habitat after placer mining have, in many cases, failed to meet a number of reclamation performance standards required by regulation. The BLM was also concerned about whether there were adequate financial guarantees to cover all of the Federal mining operations in the State.

After the issuing IMs, the BLM sent a letter with associated information to every Federal miner in Alaska and met with individual miners to go over the regulations and how BLM would be measuring reclamation. The BLM also provided presentations on reclamation and a short course on revegetation with the Alaska Miner Association (AMA) and Alaska Minerals Commission in the Fall of 2015. In the summer 2015, the BLM implemented the Jack Wade Demonstration project in the Fortymile Wild and Scenic River Corridor to test new reclamation techniques for placer mined streams in Alaska. The project is designed to accelerate the recovery of in-stream and riparian habitats in a historically mined area. The ultimate goal was to find new approaches to reclamation and to help miners meet the reclamation standards more quickly. If the techniques are successful it will help miners to plan and implement their own reclamation work and assist them in meeting the reclamation performance standards required by regulation. Several Fortymile miners attended a workshop in Chicken to discuss reclamation evaluations and view the demonstration project. One of the successes from the workshop is that one of the area miners has asked BLM to help develop another demonstration project in 2016 on his mine site.

In April 2016, the BLM plans to give presentations on reclamation and a short course on revegetation at the AMA conference in Fairbanks. The BLM will also organize field workshops and demonstrations for miners in Chicken, Central and Coldfoot in the summer of 2016 and develop booklets and videos describing reclamation techniques.

- c. And please elaborate on what the Department’s policy is in the interim while new policies, enforcement approaches, management plans and the like are being developed. For example, is it the Department’s position to continue operating under existing policies while a new policy is being drafted?

Answer: Existing operations are not affected until new policy, plans or regulations are finalized. In some instances, operations are “grandfathered in” and follow the old regulations. For

example, some mining operations are covered by the 1980 version of the CFR while others are covered by the 2001 version. However both versions require revegetation and the rehabilitation of fisheries and wildlife habitat. The mining IMs outline ways to measure the effectiveness of the reclamation and assure that it meets either version of the regulations.

When the new Resource Management Plan is completed, the stipulations in the plan will only affect new or modified mining plans of operation. Existing plans of operation, or those with only minor modifications, are not affected.

Murkowski 43. The Administration has been vague on the details surrounding your proposed \$10.25/barrel “fee,” as you call it.

- a. Has the Interior Department performed any analysis of how a \$10.25/barrel fee would impact energy production on federal lands? If not, why not?

Answer: The proposed oil fee, which would be gradually phased in over five years, is an important part of the Administration’s effort to address the challenges of our outdated transportation system. The fee would raise the funding necessary to make these new investments, while also providing for the long-term solvency of the Highway Trust Fund to ensure we maintain the infrastructure we have. By placing a fee on oil, the President’s plan creates a clear incentive for private sector innovation to reduce our reliance on oil and at the same time invest in clean energy technologies that will power our future.

The proposed fee is not a wellhead tax and is not specific to oil production from federal lands. Therefore, BLM has no reason to believe that energy production from federal lands would be disproportionately impacted – either positively or negatively – by the fee and has not performed an analysis on its impact. The Department understands that the Administration has indicated a desire to work with Congress on how to optimize collection of the fee. However, the Department would not have a direct role in developing or implementing the details of this fee proposal. Further questions about this proposal should be directed to the Department of the Treasury.

- b. In 2013, a report commissioned by the Department of the Interior concluded that raising royalty rates on onshore oil and gas production on public lands would discourage investment and bring less money to the treasury, and consequently was not warranted. With oil prices drastically lower than in 2013 and the literally thousands of pages of new regulations that have come out of your Department to regulate industry over the last few months, has your Department analyzed what the cumulative impact of all of these actions will be on production on federal lands and revenue to the treasury?

Answer: Consistent with federal requirements, the Department has analyzed the economic effects of each rule. These analyses evaluate the rules individually, because there is so much geographic and operational variability in where and when the rules will apply and whether and how they will impact operators. That said, a number of the new standards reflect existing industry best practices, with which many operators are already in partial or full compliance, and some of the measures will actually save producers money. Additionally, many of the rules

incorporate grandfathering or other provisions that are specifically designed to take account of operators' concerns about the rules' impacts, including impacts on lower-producing wells.

- c. In light of these new regulations and fees, can you tell me that your actions are designed to increase production on public lands, or are you ready to concede that we have different policy objectives when it comes to energy development on federal lands?

Answer: With respect to onshore production, the Department has a unique and broad mission to manage public lands on behalf of the American people under the dual framework of multiple use and sustained yield. This means we manage these lands for a broad range of uses including renewable and conventional energy development, livestock grazing, timber production, hunting, fishing, recreation, and conservation. These rules are part of a broad regulatory framework designed to balance oil and gas production on the public lands with the many other uses of those lands and assure development of the public's oil and gas resources occurs safely, responsibly, and in the right places.

Murkowski 44. The FY 2015 Omnibus included a requirement for a comprehensive inventory of contaminated sites conveyed through ANCSA and a detailed plan on how the Department intends to complete cleanup of each contaminated site within 180 days of enactment.

- a. When will the report be completed and made public?

Answer: The report is complete and in the midst of a final review. It should be available this summer.

- b. Does the Department have any plans to accelerate the cleanup of contamination on Native lands, either the lands that BIA, BLM, FWS, NPS, or Bureau of Mines actually caused, and do you have any plans to coordinate a cleanup among the other federal agencies: DOD, FAA, the National Weather Service and the Forest Service since as Secretary you do have a trust responsibility to Alaska Natives?

Answer: The BLM developed a database with the most comprehensive inventory to date of known contaminated sites on lands conveyed to Alaska Native Corporations through the Alaska Native Claims Settlement Act (ANCSA). The database contains current information about each site's land and regulatory status, including 1) the entity to which the BLM conveyed the property; 2) the precise coordinates, if known, for where the contaminated site is located; 3) the current understanding of the site's type and amount of contaminants, if known; and 4) any data gaps. Before it can be considered final, the inventory needs to be refined with further regulatory and site characteristics, when that information is identified. Additionally, further outreach needs to be completed to those Alaska Native Corporations that did not respond during the BLM's facilitated meetings with stakeholder groups. Once finalized, the inventory will provide Alaska Native entities and the appropriate Federal and State regulators with a powerful tool to help address these contaminated sites.

It is important to stress that, once non-Department of Defense lands pass from Federal ownership, former land-managing agencies no longer have authority under CERCLA and

Executive Order 12580 (Superfund) to compel or conduct clean up, although the U.S. may remain liable for pre-conveyance contamination. The Department of Defense is the only Federal agency besides the Environmental Protection Agency (EPA) authorized to execute or compel cleanup of contaminated lands no longer under its ownership per 10 USC 2701(c)(1)(B). The BLM and DOI have no authority over other entities that may be identified as parties responsible for existing contamination on lands conveyed to ANCSA corporations. With the completion of this comprehensive database, the BLM has worked to the full extent of its authority in fulfilling its responsibilities under the Consolidated and Further Continuing Appropriations Act, 2014 (Public Law 113-235).

Among the sites known to be in need of cleanup, the Alaska Department of Environmental Conservation (ADEC) has identified a responsible party or parties for almost all sites. For the vast majority of parcels, the BLM was not managing the lands when they became contaminated and ADEC has identified other agencies as the responsible party. Once responsible parties have been documented for the sites identified in the completed inventory, the final phase of work will be directed by the appropriate regulatory agency. Within Alaska, this authority lies with ADEC and EPA for sites not on Federally-managed lands. For sites where a Federal agency has been identified as the responsible party, funds for cleanup will require budgetary planning and prioritization.

- c. Does the Department have any estimates or intend to develop estimates for exactly what it will cost to clean up the lands so they are usable by Natives to generate the benefits that were intended when the Native Claims Settlement Act passed 45 years ago?

Answer: The sites not currently in a clean-up program vary in levels of confirmation with regard to the extent of the contamination. Without the details related to a verification of a release, extent of hazardous material, and other site characteristics that would support estimates for cleanup, it is difficult to predict cleanup costs.

Questions from Ranking Member Udall

Udall 1. I'm very pleased that this Subcommittee was able to provide an 85 percent increase for Indian school construction and improvements in the 2016 omnibus. That amount includes funds to finish the schools on the 2004 school construction priority list. It also provides a down payment for to begin work on new schools—that BIE is in the process of selecting.

Selecting five new schools for priority construction is only the beginning of the investment we need to make in tribal schools—and I believe we won't get there unless we develop some kind of "Marshall Plan" for Native youth that fully funds infrastructure needs. We included language in the 2016 omnibus urging the Department to follow the lead of the Defense Department—and develop a comprehensive plan to modernize and improve all BIE schools. DOD produced a plan to modernize its education facilities needs in 2009—and has been able to make significant progress towards fixing its schools as a result. There's no reason that the Administration and Congress can't work together to do the same for tribal schools.

- a. Secretary Jewell, can you share what steps the Department is taking to develop a comprehensive plan to improve all Indian schools?

Answer: Indian Affairs and the Department have directed the Office of Facilities, Property, and Safety Management, through its Division of Facilities Management and Construction to work with a contractor to develop a "Poor-to-Good" 5-year plan to identify the approach and resource requirements necessary to modernize our school facilities. The results of the assessment will be ready for internal review and further strategic planning development in May 2016.

- b. Is there any reason that the Department can't move forward with preparing a comprehensive needs assessment—and plan to address the needs identified by such an assessment—this fiscal year?

Answer: As described above, the Office of Facilities, Property, and Safety Management, through its Division of Facilities Management and Constructions is engaged in developing such a plan. The results of the assessment will be ready for internal review and further strategic planning development in May 2016.

Udall 2. I understand that the Department is now moving forward with the first phase of the proposed reorganization of the Bureau of Indian Education—including the establishment of new Educational Resource Centers—and that your 2017 budget anticipates additional changes to the Bureau. As part of the first phase of the reorganization, you have proposed a number of staffing changes, including changes to the regional office in Albuquerque, to create these new centers to assist BIE and tribally controlled schools.

- a. What is your timeline for staffing up these centers, and what services can schools expect to receive starting in the fall?

Answer: Staff hiring is planned to be completed by the end of June 2016 in time for the new school year 2016-2017.

The Education Resource Centers are geographically positioned close to schools and will be staffed with School Solutions Teams. These Teams will ensure that principals and teachers have the resources and support they need to operate high achieving schools. These Teams will assist schools in their improvement efforts by providing data-supported best practice models in such areas as school management and climate, professional development, curriculum, and instruction. These Teams will not micromanage or direct reforms in schools; rather, they will listen to principals and teachers and then provide the support that is requested.

- b. I am still hearing from tribes in New Mexico that they don't feel fully informed about changes to expect from the reorganization. What is your plan to ensure that all stakeholders—including BIE employees whose jobs may be affected—know what to expect during the reorganization?

Answer: The BIE has sought to inform Tribes about the expected changes to the BIE reorganization through consultation and outreach. In 2015, the BIE held 12 regional and individual consultations along with six national consultations. The BIE welcomes further questions or comments.

In terms of informing BIE employees, the BIE Office of Human Resources (HR) has held an open house, as well as encouraged BIE employees to stop by the office to discuss the reorganization and positions. All employees were notified by email that HR was available for private meetings to discuss the reorganization and the potential impact on them individually; approximately 110 individual counseling sessions were held in person or via telephone. Since February 22, 2016, the BIE has issued vacancy announcements for available positions under the new structure. The Acting HR Director and his staff have sent email updates as the vacancy announcements have been made and provided letters to all staff affected by the reorganization. In addition, information is posted on the HR website and distributed by the BIE newsletter and flyers. HR has also provided webinars that can be accessed at any time by staff explaining how to access USAJobs and how to apply for jobs using USAJobs.

- c. Your budget request provides \$8 million dollars in new funds to implement more changes to the Bureau to “increase capacity” and provide additional services to BIE-funded schools, but it doesn't provide much more detail. What specific changes are you proposing to make, and what additional capacity will BIE build with these funds? Will these funds be used to address shortfalls in facilities management, contracting and other services provided to schools, as identified by the Governmental Accountability Office?

Answer: The additional \$8 million is required to stand up the new Schools Operations Division within the Bureau of Indian Education. The School Operations Division will include the following functions: Facilities (school construction, repair and maintenance, school safety and school property); Human Resources; Educational Technology; Acquisitions; Budget and Finance; and Communications. The redesign and restructuring of the Schools Operations Division will address the Government Accountability Office recommendations related to accountability and management of funds, school safety issues, shortfalls in facilities management, and the planning and execution of acquisitions. These issues are addressed in

several ways under the restructuring of the BIE as follows: (1) dedicated, additional staffing; (2) establishment of new offices with new responsibilities (e.g., auditing, technical assistance, policy development); (3) new reporting chains to ensure oversight of functional experts; (4) new business processes that support school needs, and (5) consolidation of functions to eliminate duplication.

Udall 3. Secretary Jewell, I am pleased to see your 2017 budget includes a \$350,000 increase to expand the Manhattan Project National Historical Park, for a total budget of \$691,000. I know that the Park Service is still working with the Department of Energy to develop its plan for the park.

Could you please provide an update on what we can expect to happen with the park in 2016, particularly in Los Alamos? What activities do you plan to fund with your requested increase?

Answer: If appropriated, funding would provide for adequate initial staffing of all three park locations, including Los Alamos. A Superintendent, a site manager at each location, and some interpretive staff are planned based on the proposed budget for FY 2017.

If funding is appropriated, the Los Alamos site will hire a site manager in 2017 and will expand interpretive staff. The Department of Energy is working to have the first buildings open to the public in late calendar year 2017.

In the meantime, the park has developed a brochure showing the Manhattan Project resources visitors can see in town, and will be hosting regular ranger talks and tours by summer 2016. NPS anticipates expanding the interpretive presence in 2017 with the additional funding as well as continuing to develop partnerships with the local community.

Udall 4. Secretary Jewell, I am very pleased that my colleagues and I were able to provide the BLM National Conservation Lands line item with its first increase since FY 2012. As you know, we recently established two new national monuments in New Mexico—the Organ Mountains-Desert Peaks National Monument in the southern border area of the state, and the Rio Grande del Norte National Monument in the north near Taos. Tourism at these monuments creates critical economic opportunities for the people in surrounding communities—and they are also places that New Mexicans enjoy visiting ourselves. The President’s Budget once again proposes a significant increase of \$13.8 million dollars for monuments throughout the country.

a. Can you tell us what BLM’s plans are for utilizing the new funds we provided in FY 2016—particularly to support the monuments in New Mexico?

Answer: The BLM’s National Monuments and National Conservation Areas (NM&NCA) program received a \$5.0 million increase in FY 2016. The increase brings the program’s total appropriation to \$36.8 million, which is used to administer 46 areas covering about 12.2 million acres (as of April 1, 2016). New Mexico has received \$1.3 million, or 26 percent, of the increase because of several new NM&NCA designations. This brings the State’s total NM&NCA program funding to \$2.5 million – a 110 percent increase from FY 2015.

These funds will support all NM&NCAs in New Mexico, including newer national monuments. Specific direction includes funding managers, critical staff, signage, and educational materials, among other things. Funding is also directed for New Mexico's critical maintenance needs, to inventory and protect the resources, objects, and values for which units were designated, to reduce staffing vacancies, provide education and interpretation to the public, hire youth and veterans, and provide safe and legal public access.

- b. With the increased funding included in the 2017 Budget for national monuments, what will you be working on? What are the needs that should be addressed?

Answer: The BLM plans to use the proposed \$13.8 million increase to the NM&NCA program as described in the FY 2017 President's Budget. Specifically, the program will use the increase to fill critical management and staff vacancies, conduct vital inventories, provide safe and legal public access, perform basic maintenance on infrastructure, protect wildlife habitat and irreplaceable historical resources, and provide opportunities for recreation, volunteering, youth and veteran engagement, and scientific research.

- c. Since the Budget was delivered, the President has designated new monuments in California, and I understand there is still the potential for additional designations. Will the funding needs for those areas be covered by the increases you've proposed? If not, how will you fund them without impacting other states like New Mexico?

Answer: The 2017 budget was formulated prior to these most recent designations. BLM base funding has been used to manage these acres prior to their designation as national monuments. Decisions on allocation of the requested increase have yet to be made. The BLM will have a better idea of 2017 funding needs for the new monuments in the coming months, and will be able to reprioritize estimated NM/NCA State allocations at that time.

Udall 5. The Budget proposes \$1.7 million dollars to implement a Departmental Southwest Border Radio Initiative—in partnership with the Forest Service—to improve communications infrastructure amongst the various land management agencies, based on some issues the Inspector General uncovered.

- a. Can you talk about how this funding specifically addresses the concerns raised by the Inspector General? Will this initiative improve Interior's ability to communicate with Border Patrol and state and local law enforcement as well?

Answer: The funding proposed for the FY 2017 Bureau of Land Management Deferred Maintenance budget will allow the Department of the Interior to complete the first pilot projects aimed at resolving deficiencies in the land mobile radio program in an area with a critical need for improved communications. Projects to be completed with these funds will focus on resolving concerns over safety of DOI personnel using and maintaining land mobile radio facilities. In addition, land mobile radio infrastructure will be consolidated, removing redundant facilities and upgrading equipment on remaining sites. The priorities for work will be accomplished in collaboration with other DOI Bureaus in the region including the National Park Service (NPS), Fish and Wildlife Service, Bureau of Indian Affairs, the Bureau of Reclamation and the U.S.

Forest Service. There may be as many as 32 sites in the region which could be eliminated through this consolidation.

When completed this project will lead to reduced infrastructure costs since there will be fewer sites to maintain and the condition of the remaining sites will be much improved. A key aspect of this project is the cross Bureau cooperation within DOI and the inclusion of the USFS as a full partner. Safety and effectiveness will also be enhanced with upgraded replacement communication hardware and operational support for the infrastructure will be shared.

Radio coverage and reliability will be enhanced which should lead to better communications with other partners including the U.S. Border Patrol. The work to be done is not focused on correcting interoperability issues. These issues have been addressed through MOUs and exchange of radio frequencies and encryption keys. On the Southwest Border, the DOI and USFS Law Enforcement have been successfully interoperable with the Department of Homeland Security since 2008, in some cases much earlier. Our Officers communicate on these shared frequencies and infrastructure every day.

b. Can you tell us why BLM was chosen as the lead agency and why the Park Service and Fish and Wildlife Service do not have similar increases proposed for this project?

Answer: BLM currently administers and operates a regional interagency dispatch center in Phoenix and has been a leader in managing land mobile radio communications in the region. The Arizona BLM State Directors Office and staff have collaborated with other DOI Bureaus and the USFS to identify priority actions needed to address field communications issues and has entered into a partnership with the NPS, FWS, and the USFS in the border region of New Mexico and Arizona. Radio communications are a common operational activity and BLM has agreed to manage the requested funds to address needs across all Bureaus and the USFS. The funding will be used to consolidate existing infrastructure, removing towers that provide overlapping service and upgrading the towers that will remain and serve all the participating agencies. The specific sites to be worked on will be identified based on technical information gathered through a collaborative effort with the partners involved.

c. What are the tangible impacts we will see on the ground in New Mexico if this program is funded?

Answer: When project work is completed there should be fewer land mobile radio communication sites in New Mexico since sites that provide overlapping service will be removed. This will reduce environmental impacts and maintenance costs for unneeded sites. Maintenance visits to the sites will no longer be required reducing disturbance to sensitive species and removal of equipment and associated infrastructure will allow for restoration of previously impacted sites.

Improvements at remaining communication sites will increase radio coverage and reliability for DOI Bureaus and the USFS and should make these sites viable for colocation use by the New Mexico FirstNet Public Safety Broadband Network, counties, cities, and other Federal agencies.

Udall 6. I am the lead cosponsor of legislation with Senator Wyden that would require the Department to collect royalties for coal mined on federal lands based on the actual market value of coal. The bill also increases transparency within the federal coal program by making it a requirement to calculate and publish the going market rate for coal and coal transportation.

I know that you have called for a comprehensive review of the coal program. What is the status of that review, and the expected timetable for completion? Will the reforms proposed in our bill be evaluated as part of your review? Please provide a comprehensive list of the issues that you expect to investigate or address as part of the review.

Answer: On January 15, 2016, the Secretary of the Interior issued Order No. 3338 directing the BLM to conduct a broad, programmatic review of the Federal coal program it administers through preparation of a Programmatic EIS under NEPA. The Order was issued in response to a range of concerns raised about the Federal coal program, including, in particular, concerns about whether American taxpayers are receiving a fair return from the development of these publicly owned resources; concerns about market conditions, which have resulted in dramatic drops in coal demand and production in recent years, with consequences for coal-dependent communities; and concerns about whether the leasing and production of large quantities of coal under the Federal coal program is consistent with the Nation's goals to reduce greenhouse gas emissions to mitigate climate change. In light of these issues, the coal Programmatic EIS will identify and evaluate a full range of potential reforms to the Federal coal program, including those related to ensuring a fair return to the taxpayer.

On March, 30, 2016, the Department of the Interior published a Notice of Intent (NOI) to prepare a programmatic EIS to review the Federal coal program and conduct public scoping meetings [Pages 17720 - 17728 [FR DOC # 2016-07138]]. Scoping meetings are scheduled for May and June 2016. The BLM will invite interested agencies, States, American Indian Tribes, local governments, industry, organizations and members of the public to submit comments or suggestions to assist in identifying significant issues and in determining the scope of this Programmatic EIS. All comments and recommendations submitted during the scoping process will be collected for consideration. The estimated completion time for the program review is 3 years.

Udall 7. Secretary Jewell, the demand for ivory and rhino horns has skyrocketed. The Congressional Research Service reports that a rhino horn is worth more than \$50,000 per kilogram – more than even gold and platinum. The profit incentive is just staggering – so it's no surprise that terrorist networks such as al-Shabab and the Lord's Resistance Army are turning to poaching to support their operations.

The FY 2016 Omnibus included \$8 million dollars, a 12% boost, to the Fish and Wildlife Service's efforts to combat wildlife trafficking. The budget request for FY 2017 would maintain that increased effort.

What progress is the Service making on hiring the planned 45 new specialists and agents, and how quickly will they get into the field? What other steps is the Service planning to take with the new funds, both in 2016 and 2017?

Answer: The FY 2016 Omnibus included an \$8 million dollar increase for the U.S. Fish and Wildlife Service's Office of Law Enforcement to combat wildlife trafficking. These funds are being used to strengthen the Service's capacity to combat trafficking by hiring additional international special agent attachés, digital forensic specialists, intelligence analysts, and special agents.

International attachés are experts on investigating wildlife trafficking and breaking up smuggling networks. They are stationed around the world in strategic international locations to strengthen ongoing international partnerships to protect the world's wildlife from poaching and illegal trade. In August 2015, three additional attachés were stationed at U.S. embassies in Dar es Salaam, Tanzania; Gaborone, Botswana; and Lima, Peru. The Service continues to work with the State Department to place a fifth attaché in Beijing, China in May 2016. In 2016, the Service plans to deploy an additional four international attachés in areas of the world that have been determined to be strategically important in the fight to combat illegal wildlife trafficking. The Service is in final discussions with the State Department concerning the placement of four additional attachés. The Service anticipates advertising the positions before July 2016, with selections for the positions to be made in August 2016.

Digital forensic specialists support agents in case development and execution by providing forensic results concerning computers, cell phones, and other digital technologies. The Service is currently reviewing applications for the five new special agent positions funded in the FY 16 budget. The Service aims to place the new agents at the Digital Evidence and Recovery Computer Forensics Lab by June 2016.

Intelligence analysts support special agents and wildlife inspectors working in the field in numerous ways, including providing information concerning trends in wildlife trafficking, researching information on smuggling syndicates, performing criminal history checks, and producing and distributing intelligence bulletins. The Service is on track to select a new Special Agent in Charge of the expanded Intelligence Unit in June 2016, with plans to bring the remaining agents on board shortly thereafter.

The Service has also hired 43 special agents to ensure its ability to enforce the Nation's wildlife laws and safeguard protected species. The additional special agents will address the current staffing level shortfall that has limited the Service's ability to perform ongoing investigations. A portion of the new agents have completed initial training and are already working at field locations. Final training will take place in June 2016 at the Federal Law Enforcement Training Center in Glynco, GA. After completion of all training, new agents will be deployed to the field for direct interdiction of illegal commercial exploitation by organized crime elements.

Through increased staff in these vital areas of expertise, the Service will strengthen our own and our global partners' capacity to prosecute and deter criminals that engage in the poaching and smuggling of wildlife and plants.

Udall 8. Secretary Jewell, the Fish and Wildlife Service's efforts to reintroduce the Mexican gray wolf in New Mexico and Arizona has had a promising start. They were virtually eliminated from the wild by the 1970s, but thanks to the program, the population reached 110 wolves in 2014.

Unfortunately, the 2015 count brought some troubling news – the Mexican gray wolf population dropped to 97. I also understand that two wolves passed away during or right after being darted and tagged by the Fish and Wildlife Service. Wild populations can naturally ebb and flow, but we know that these wolves are at risk for a number of factors. It's critical that we investigate closely.

- a. Do your scientists have a theory for why the population is trending downward? Are there plans underway to help support a rebound?

Answer: The drop in numbers from 2014 to 2015 represents one year and does not yet indicate a trend. The population decline in 2015 was due to a combination of factors. There were 13 Mexican wolf mortalities (5 illegal, 2 natural, 1 capture complication, 5 awaiting necropsy) compared to 11 in 2014. Ten additional wolves are considered fate unknown compared to three in 2014. Finally, a significantly lower proportion of pups survived to December, relative to last year: 55% survival in 2015 compared to 86% in 2014. In the 2014 Environmental Impact Statement for the revised regulations for the Mexican wolf experimental population, the Service anticipated an average annual population growth of 10 percent. In 2014, Mexican wolves had higher than usual pup survival and a population growth of 30 percent. The Service maintains that the strategy for the experimental population continues to be viable. The Service and its partners remain focused and committed to making this population genetically healthy and robust so that it can contribute to the recovery of the Mexican wolf.

- b. Why did the two wolves die during the count and capture operation? Has the Fish & Wildlife Service done a full review of their policies and procedures to prevent similar accidents?

Answer: The Service conducted preliminary investigations immediately following the two deaths during the 2015 count and capture operation. Both wolves are undergoing necropsies at the Service's Forensics Laboratory in Ashland, Oregon, to determine cause of death. We have requested that the lab specifically determine if either wolf experienced capture myopathy and if there was any other contributing underlying health issue. The techniques, protocol, and drugs used were the same as those used throughout this year's and last year's count and capture operations. This year, 13 additional wolves were successfully darted, processed, collared, and released back into the wild. Based on the outcome of the necropsies, the Service will determine if any changes to protocol are needed.

Questions from Senator Blunt

Blunt 1. Could you please provide a comparison of the revenues returned in the last several fiscal years from oil, gas, and coal leases, versus any revenue brought in from solar energy. Please include in the report what the revenue is generated from, such as rents. Further, please identify where this money is accounted for in the Interior budget. It does not appear to be documented in Interior's Office of Natural Resources Revenue which lists revenues from other sources.

Answer: A comparison of the revenues generated for oil, gas, coal and solar energy are provided in the tables below.

Revenues from oil, gas, and coal leases: Data with respect to revenue generated by the production of Federal oil, gas, and coal is maintained by ONRR on its Statistical Information webpage (<http://statistics.onrr.gov/ReportTool.aspx>). Information made available is broken down into information on Revenue Type (reported royalties, rents, bonus, and other revenues), Commodity (leased solid and fluid minerals), and the total Revenue collected. Definitions for these categories are provided by ONRR on its website.

The tables below present the total revenue collected from Federal oil, gas, and coal production on both an annual and aggregate basis from FY 2010 through FY 2015.

Oil & Gas Revenue FY 2010 - FY 2015

Type	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Gas (mcf)	\$1,444,790,640	\$1,360,191,600	\$976,195,024	\$1,008,066,360	\$1,161,006,314	\$915,071,846
NGL (gal)	\$210,688,138	\$253,774,439	\$298,372,582	\$284,957,168	\$279,379,284	\$154,241,725
Oil (bbl)	\$870,739,500	\$1,110,883,193	\$1,275,117,598	\$1,459,973,589	\$1,634,903,295	\$1,269,596,134
Total Royalties	\$2,526,218,278	\$2,724,849,233	\$2,549,685,203	\$2,752,997,117	\$3,075,288,892	\$2,338,909,704
Oil & Gas Rents	\$48,800,065	\$45,002,896	\$43,758,281	\$41,036,833	\$36,684,823	\$30,886,105
Oil & Gas Bonuses	\$201,872,509	\$233,467,555	\$283,051,994	\$188,982,219	\$161,936,505	\$112,651,284
Total Royalty, Rent and Bonus	\$2,776,890,852	\$3,003,319,684	\$2,876,495,478	\$2,983,016,170	\$3,273,910,220	\$2,482,447,094

Coal Lease Revenue FY 2010 - FY 2015

FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total FY 2010-2015
\$856,793,241	\$956,018,290	\$1,364,744,116	\$1,165,066,525	\$1,161,706,509	\$1,137,450,911	\$6,641,809,592

Revenues from Solar Energy: ONRR does not collect renewable resource revenue information. Renewable energy revenue is reported by the BLM in the Public Land Statistics. Since 2010, the BLM has authorized 35 solar projects. As of April 2016, there are 6 projects that have been built

and are providing power to the grid. The following table summarizes renewable energy revenues that BLM has collected over the past several years.

The table below reflects annual payments that the BLM collects for solar and wind energy development. It does not include revenues collected through competitive bidding for development parcels at an auction since there has only been one auction held to date, in 2014, which resulted in over \$5.8 million in bids. This is an amount that the BLM collected in addition to the amounts reported in the table below. All revenues, including bid monies, are sent to the General Fund at the Treasury.

Solar and Wind Energy Revenue
FY 2010 - FY2015

Year	Solar	Wind	FY Total
FY 2010	\$3,911.76	\$3,115,480.25	\$3,119,392.01
FY 2011	\$6,230,982.09	\$3,713,338.16	\$9,944,320.25
FY 2012	\$5,199,338.42	\$4,354,260.32	\$9,553,598.74
FY 2013	\$6,343,817.72	\$4,315,856.99	\$10,659,674.71
FY 2014	\$7,307,687.93	\$5,402,276.42	\$12,709,964.35
FY 2015	\$10,686,757.63	\$4,538,337.65	\$15,225,095.28
TOTALS	\$35,772,495.55	\$25,439,549.79	\$61,212,045.34

Blunt 2. Given that your department has concluded that a PEIS for the coal leasing program is necessary, will you commit to refraining from other major modifications to the coal program while this analysis is being conducted?

Answer: The intent of the discretionary Programmatic EIS is to analyze potential leasing and management reforms to the current Federal coal program in response to concerns raised by the Government Accountability Office, the Interior Department’s Office of Inspector General, Members of Congress, interested stakeholders and the public. Any potential reforms or changes to the Federal coal program will be identified in the scoping process.

Blunt 3. You have indicated that a number of coal leases that have received record of decisions will be grandfathered. Are you firmly committed to allowing those lease sales to move forward as planned?

Answer: The Secretarial Order states that applications having records of decisions or decision records issued by either the surface management agency or the bureau at the time of the order will be processed and not affected by the pause.

Questions from Senator McConnell

McConnell 1. The Consolidated Appropriations Act of 2016 (P.L. 114-113) included a directive to require the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide states with technical reports, data, analyses, comments received, and documents related to the environmental review and environmental impact statements for the agency's proposed stream buffer zone regulation. To date, what has OSMRE done in conjunction with the Department of Interior to comply with Congress' directive?

Answer: OSMRE made these documents available to all of the States on March 24, 2016. Reference materials cited in the proposed rule were uploaded on the website *regulations.gov* with the exception of reference materials protected by copyright law.

McConnell 2. The Office of Surface Mining and Enforcement (OSMRE) claims that states have been reluctant to work with the agency despite their outreach efforts on the proposed stream buffer zone regulation. The Energy and Environment Cabinet in Kentucky sent a letter to your agency on February 8, 2016, indicating that the state agency would be interested in receiving the information directed by Congress in the Consolidated Appropriations Act of 2016 (P.L. 114-113) to see how those studies and assessment documents compare with their own findings and reviews. Where is your agency in the process of responding to this request? What steps will your agency take to ensure that the newly elected and appointed officials in the commonwealth of Kentucky are brought up to speed with the proposed rule and reviews and findings associated with it? What sort of engagement can the Kentucky Energy and Environment Cabinet expect from your agency before the stream buffer zone rule is finalized?

Answer: OSMRE has and will continue to honor its commitment to provide the State of Kentucky as well as all other States the information directed by Congress. In this regard, OSMRE scheduled a series of technical meetings to provide answers to questions the States might have with any of the documents provided. The State of Kentucky was invited to participate in these meetings held on April 14, 2016 and on April 21, 2016.

Questions from Senator Cassidy

Cassidy 1. In 1996 Congress passed the National Technology Transfer and Advancement Act (NTTAA). The law prohibits the use of technical standards unique to the federal government in lieu of voluntary consensus standards as they relate to agency rule making. However, the Blowout Preventer Systems and Well Control final rule, RIN 1014-AA11 violates the NTTAA by using government unique technical standards. This violation makes it impossible to implement numerous portions of the rule while remaining compliant with existing law. In its formulation of the rule BSEE also infringes upon OMB Circular A-119. The circular requires the publishing of a NTTAA “statement” in its Notice of Proposed Rulemaking (NPRM) detailing why government unique technical standards were necessary in lieu of consensus standards if exceptional reasons existed.

a. Why did BSEE not include a NTTAA statement in its original NPRM?

Answer: BSEE’s Blowout Preventer Systems and Well Control final rule is consistent with the NTTAA’s requirement that agencies use technical standards that are developed or adopted by voluntary consensus standards bodies rather than government-unique standards. The final rule expressly incorporates the following voluntary consensus technical standards as required by the NTTAA:

- American Petroleum Institute (API) Standard 53 (“Blowout Prevention Equipment Systems for Drilling Wells”);
- ANSI/API Specification (Spec.) 11D1 (Packers and Bridge Plugs,
- ANSI/API Spec. 16A (Drill-through Equipment);
- API Spec. 16C (Choke and Kill Systems);
- API Spec. 16D (Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment);
- ANSI/API Spec. 17D (Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment); and
- ANSI/API RP 17H (Remotely Operated Vehicle Interfaces on Subsea Production Systems).

The final rule does not use government-unique standards in lieu of voluntary consensus standards. As a result, BSEE is not required to provide a statement that identifies government-unique standards and explain why using voluntary consensus standards would be inconsistent with law or otherwise impractical.

b. How does BSEE plan to implement all of rule RIN1014-AA11 if key provisions violate existing statutes?

Answer: BSEE does not believe that any provisions of the rule violate existing statutes. As BSEE described in the preamble to the proposed rule, pursuant to the Outer Continental Shelf Lands Act (OCSLA), Congress authorized BSEE to promulgate regulations concerning natural resources of the Outer Continental Shelf.¹ BSEE relied on this legal authority as its basis for

¹ 80 Fed. Reg. 21505 (April 17, 2015); 43 U.S.C. 1334.

developing and issuing the final Blowout Preventer Systems and Well Control rule. The final rule is consistent with OCSLA and other existing statutes described in the rulemaking record

- c. Does the Department plan to publish a NTTAA statement and reopen the public comment period?

Answer: As the Blowout Preventer Systems and Well control rule complies with the requirements of the NTTAA and the guidance in OMB Circular A-119 concerning the Bureau's identification of voluntary consensus standards used in the rule, the Department does not plan to reopen the public comment period.

Cassidy 2. The NTTAA does allow for exceptions from the voluntary consensus standards mandate when their use "is inconsistent with applicable law or otherwise impractical" and requires agencies to "transmits to the Office of Management and Budget an explanation of the reasons for using such standards." In accordance with 15 U.S.C. §272.

- a. Please explain the Department's process for justifying a NTTAA exemption when BSEE was actively involved in creating and approving the consensus standards at issue.

Answer: BSEE's promulgation of the final Blowout Preventer Systems and Well Control rule is consistent with the NTTAA's requirement that agencies use technical standards that are developed or adopted by voluntary consensus standards bodies, rather than government-unique standards, when such technical standards are consistent with the law and practical (e.g., when the technical standards would serve the agency's program needs and would not be ineffectual, inefficient or inconsistent with the agency's mission). The final rule does not rely on an exemption from the NTTAA.

- b. Please explain the justification that voluntary consensus standards are "impractical", especially taking into account that government-unique standards lack a technical basis and create potential safety risks.

Answer: Each departure from voluntary consensus standards is founded on a sound technical basis, generally accepted engineering best practices, and BSEE's determination that the relevant consensus standard, or a specific provision of the standard, does not provide an acceptable level of risk, risk management, or due care. For example, API Standard 53 contains a provision that allows an operator to opt out of a requirement to have dual shear rams on a subsea blowout preventer. The final version of the Blowout Preventer Systems and Well Control rule incorporates API Standard 53, but does not incorporate the "opt-out" provision as the Bureau determined that full incorporation of Standard 53 cannot provide the same level of safety as an absolute requirement to have dual shear rams. In instances such as this, where the Bureau decided that a departure from consensus standards was appropriate, BSEE exercised its authority carefully with an eye toward establishing an acceptable level of protection while also balancing risks, costs, and the availability of alternative approaches in establishing regulatory requirements.

Cassidy 3. In its NPRM BSEE claims the proposed rule is not a “significant energy action” triggering the need for a Statement of Energy Effects under the Outer Continental Shelf Lands Act (“OCSLA”) and procedural requirements under Executive Order 13211 (May 18, 2001) requiring a “Statement of Energy Effects.” However, based on comments received from the public it is unreasonable for BSEE and the Department to continue this claim. BSEE has acknowledged that the proposed rule in total “represents one of the most substantial rulemakings in the history of the BSEE and its predecessor organizations.” While simultaneously and inconsistently claiming that the proposed rule is not a significant energy action under E.O. 13211, BSEE has not met the mandate under OCSLA for a reasoned analysis of the rule.

Given the obvious and BSEE acknowledged impact this rule will have; will the Department renew its analysis and prepare the requisite Statement of Energy Effects and submit the Statement for public comment, as required by law?

Answer: The rule represents one of the most substantial rulemakings in BSEE history because it codifies significant improvements to the safety of well control operations, not because of any possible energy effects. The Bureau’s analysis of the final rule indicates that it will not have a significant adverse effect on energy supply, distribution, or use because its estimated impacts will not exceed the thresholds established by OMB.²

Cassidy 4. BOEM has stated that offshore sources have not been demonstrated to impact onshore air quality. At the same time, BOEM is currently undergoing air modeling studies to inform its air quality rulemaking and these studies are not expected to conclude until 2017. However it appears the agency is on the cusp of proposing an entirely new regulatory program for offshore operators.

a. Is the agency going to move forward with a proposed rule before receiving the results of the air modeling studies that are intended to inform the rule for which it has commissioned nearly \$4M? What assurance can you provide today that the agency will issue a draft report of the studies for public review and comment prior to finalizing the report or incorporating its conclusions into any revised regulatory requirements?

Answer: The proposed regulations continue the framework of the current BOEM air quality regulations. The framework, a construct in place since 1980 when the Department of the Interior first issued air quality regulations, was designed to meet the Department’s statutory mandate to ensure that offshore oil and gas activities do not exceed onshore national ambient air quality standards (NAAQS).

Given today’s landscape, we acknowledge the need to update the 36 year-old regulations to reflect current science and technology and recent determinations about pollutant levels that are potentially harmful to human health and the environment. The existing regulations reflect outdated air quality standards that the Environmental Protection Agency (EPA) has since revised to better reflect current science.

² OMB Memoranda 01-27 (Guidance for Implementing E.O. 13211) (2001).

The proposed regulations will more effectively protect public health and the welfare of affected states. In addition, BOEM's current regulations do not take into account air quality impacts over state coastal waters, which BOEM believes would more accurately meet its statutory responsibility. Finally, revisions are also needed to address BOEM's responsibility to assess air quality impacts in the Arctic, as required by The Consolidated Appropriations Act, 2012 (P.L. 112-74).

The proposed regulations are designed to allow advances in science and assessment of air quality impacts to be flexibly and efficiently incorporated into BOEM's air quality rules, including results of the modeling studies currently underway. The modeling studies are intended to inform air quality requirements *within* the framework of the proposed regulations, not the framework itself. Consistent with BOEM's practice for scientific standards, the studies will be peer-reviewed and made public once final. Also, as BOEM's proposed regulation provides, any changes in the current emission exemption thresholds, which the models are designed to inform, would not occur until the studies are completed, and would not occur before BOEM gives notice in the *Federal Register* that it intends to revise the thresholds and provide an opportunity for public comment.

Conclusions about the environmental impact of OCS air emissions depend on the focus of review and the most recent science. Those assessments are determined when BOEM reviews site-specific plans of operations. In that context, it is possible for emissions to exceed significant impact levels or lead to deterioration of state air quality. Accordingly, it is necessary for BOEM to conduct a broad cumulative impact analysis, as well as a site-specific review of plans.

b. What justification does the agency have for moving forward without the results of the studies when your agency, through its environmental impact assessments, has repeatedly concluded that offshore sources do not impact onshore air quality?

Answer: The proposed regulations continue the framework of the current BOEM air quality regulations. The framework, a construct in place since 1980 when the Department of the Interior first issued air quality regulations, was designed to meet the Department's statutory mandate to ensure that offshore oil and gas activities do not exceed onshore national ambient air quality standards (NAAQS).

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- c. What reassurance can you provide that the agency will not rush, in order to meet an artificial deadline, the regulated community's ability to comment on the proposed rule and allow the agency time to engage with stakeholders as you analyze and digest those comments in order to incorporate any appropriate revisions into the final rule?

Answer: BOEM is proceeding with the rulemaking in a deliberative manner with ample opportunity for public comment. For instance, while drafting the Air Quality proposed rule, BOEM held a number of meetings and listening sessions with other government entities, and environmental and industry stakeholders. The proposed rulemaking provides 60 days for public comment following its publication on April 5, 2016 in the *Federal Register*. Additionally, the proposal was posted on BOEM's website on March 17, 2016, providing the public an additional 19 days to review the proposed rule. BOEM will carefully review the comments it receives on the proposed rule as it develops a final rule.

Cassidy 5. BSEE is currently working to finalize its BOP/Well Control Rule which as proposed may actually decrease safety and increase risk. Will the final rule make offshore operations less safe and increase risk like the proposal did?

Answer: The Department announced the final rule on April 14, 2016, and the final rule was published in the *Federal Register* on April 29, 2016. The Bureau's analysis of the administrative record, including the many recommendations associated with the *Deepwater Horizon* blowout and explosion investigations and the public comments indicates that the final rule will reduce the risk of an offshore oil or gas blowout that could result in the loss of life, serious injuries, or substantial harm to the environment. Accordingly, the final rule represents one of the most significant safety and environmental protection reforms the Interior Department has undertaken since *Deepwater Horizon*, and builds upon a number of reforms instituted over the last six years to strengthen and modernize offshore energy standards and oversight.

- a. Prior to the rule's proposal last year did DOI thoroughly examine all of the safety improvements made since 2010 and identify the existing gaps to determine what this rule needed to address?

Answer: Following the *Deepwater Horizon* tragedy, several immediate actions were taken to address specific offshore safety concerns involving drilling operations. The regulations that were issued in 2010 and 2012 provided new standards for well design, casing and cementing, and third-party certification of designs. These rules represented an important first step in addressing regulatory gaps in the offshore program, but did not address the full cadre of regulatory deficiencies identified after *Deepwater Horizon*.

The Blowout Preventer Systems and Well Control rule represents the next step in the process of creating a robust regulatory program that is responsive to all of the recommendations received from the several investigations of the *Deepwater Horizon* incident. BSEE employed a number of strategies to ensure that regulatory gaps were identified and addressed, including, but not limited to, involving industry and other stakeholders in the development of the proposed rule and in the final rulemaking process.

- b. DOI received significant comments and feedback on a number of safety concerns with the proposed rule. A recent Wall Street Journal article, which may have been written as a result of a DOI leak of the final rule, suggests that changes have been made to the proposal. What changes have been made to enhance safety?

Answer: The Blowout Preventer Systems and Well Control rule codifies many important improvements to offshore drilling. The final rule addresses key recommendations made after the *Deepwater Horizon* tragedy and closes gaps in existing regulations and updates BSEE regulations to reflect industry best practices. Parts of the final rule that were modified after the public comment period on the proposed rule include the safe drilling margin requirement, real-time monitoring, blowout preventer (BOP) inspection requirements, and BOP accumulator capacities.

As to the drilling margin requirement, text was added to clarify the acceptability of risk-based justifications for specifying an alternative drilling margin, which clearly provides the flexibility requested in numerous industry comments. With regards to the real-time monitoring provisions, language was revised to clarify the Bureau's intent and to address misperceptions reflected in the comments. The new provision reflects the Bureau's intent to allow maximum flexibility in complying with real-time monitoring requirements.

In addition to enhancing safety and flexibility, many of the changes reflected in the final rule will result in substantial cost-savings for offshore operators. For example, the final rule modifies the five-year BOP inspection requirement, allowing inspections to occur in phases, provided every component is inspected once every five years. Compliance dates were also extended for several important requirements, including the extension of the requirement to use BSEE-Approved Verification Organizations (BAVOs) to perform certifications from ninety days to no later than 1 year from the date when BSEE publishes the list of BAVOs. In response to industry comments,

the requirement to use “hydraulically-operated locks” on surface BOPs was modified to allow the use of remote-controlled locks and the effective date of that requirement was extended to three years after the date of publication. These are just a few instances where comments and other feedback BSEE received were reflected in changes to the final rule.

- c. A number of us in Congress have real concerns with the proposal all centered on safety and as a result the DOI needed to undertake a more robust analysis and engage in real dialogue to make sure the unintended consequences were addressed and the rule actually made offshore operations safer. As a result, the FY 2016 omnibus spending bill expressed the need for more robust analysis and that further examination needed to take place prior to the finalization of the rule. Did DOI heed to the call of the Congress prior to finalizing and sending the rule to OMB? Why or why not?

Answer: Yes. BSEE conducted extensive stakeholder engagement after publication of the proposed rule and during the extended comment period. BSEE participated in numerous meetings with industry and other stakeholders before and after publication of the proposed rule on subject matter related to the Blowout Preventer Systems and Well Control rule, a number of which dealt specifically with clarifying stakeholders’ written comments on the rule. BSEE also attended listening sessions arranged by the Office of Management and Budget (OMB) during the E.O. 12866 review period for the draft final rule, most of which were requested by members of industry. BSEE staff carefully considered all stakeholder comments and input.

The Bureau’s comprehensive and transparent outreach was critical to the development of the final rule. The final rule does not represent a “one-size-fits-all” approach. Rather, the final rule incorporates sufficient flexibility to allow operators to focus on the ultimate goal of increasing safety and reducing risk offshore. The final rule also allows for the development and deployment of new technologies that lead to safer operations. Additionally, the final rule employs a phased implementation approach for some of its more complex provisions that gives industry sufficient time to come into compliance with new technological requirements.

- d. Does the final rule address and fix all of the safety concerns stakeholders and Congress had with the proposal? Does the final rule enhance safety?

Answer: The final Blowout Preventer Systems and Well Control rule combines prescriptive and performance-based approaches to regulation to ensure that oil and gas companies and offshore rig operators are cultivating a greater culture of safety with a focus on risk reduction. Based on the extensive technical comments received during the rulemaking process, several adjustments were made to provisions of the proposed rule that are reflected in the final rule. The final rule provides a level of flexibility sufficient to ensure that regulatory oversight keeps pace with technological advancement, provided future innovations can meet the rule’s standards for safety performance. The key concerns of industry based on the proposed rule are addressed in the final rule including, but not limited to safe drilling margins, accumulator capacity, BOP inspection intervals, and real-time monitoring requirements. The Bureau firmly believes that the regulatory process has resulted in a final rule that will raise the bar for offshore safety, both in United States Federal waters and internationally.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 15 2016

The Honorable Doug Lamborn
Chairman
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
House of Representatives
Washington, D.C. 20515

Dear Chairman Lamborn:

Enclosed are responses prepared by the Bureau of Ocean Energy Management to questions submitted following the Subcommittee's March 2, 2016, oversight hearing titled "The Impact of the President's FY 2017 Budget on the Energy and Mineral Leasing Production Missions of the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BSEE), and the Bureau of Land Management (BLM)."

Thank you for the opportunity to provide this material to the Subcommittee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and Legislative Affairs

Enclosure

cc: The Honorable Alan Lowenthal
Ranking Member

Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
1324 Longworth House Office Building
Wednesday, March 2, 2016
10:00 A.M.

Oversight hearing on:

"The Impact of the President's FY 2017 Budget on the Energy and Mineral Leasing and Production Missions of the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BSEE), and the Bureau of Land Management (BLM)."

Questions from Chairman Lamborn for Director Hopper:

Question 1: BOEM has stated that offshore sources have not been demonstrated to impact onshore air quality. At the same time, BOEM is currently undergoing air modeling studies, at a cost of nearly \$4 million, to inform its air quality rulemaking and these studies are not expected to conclude until 2017. Even so, it appears BOEM will soon propose an entirely new regulatory program for offshore operators. Is BOEM moving forward with a proposed rule before receiving the results of the air modeling studies?

- a. If so, why are you not waiting for the modeling studies? Why did you commission the air modeling studies if they won't be used to inform the rule?
- b. Will BOEM issue a draft report of the studies for public review and comment prior to finalizing the report or incorporating its conclusions into any revised regulatory requirements?

Question 2: What justification does the agency have for moving forward without the results of the studies when your agency, through its environmental impact assessments, has repeatedly concluded that offshore sources do not impact onshore air quality?

Response to Questions 1 and 2: The proposed regulations continue the framework of the current BOEM air quality regulations, which has been in place since 1980 when the Department of the Interior first issued air quality regulations to meet its statutory mandate to ensure that offshore oil and gas activities do not exceed onshore national ambient air quality standards (NAAQS).

However, the 36 year-old regulations need to be updated to reflect current science and technology and recent determinations about pollutants levels that are potentially harmful. Due to their age, the current regulations enshrine air quality standards established by the Environmental Protection Agency (EPA) decades ago and do not reflect relevant changes in air pollution standards that have since been implemented.

The proposed regulations will more effectively ensure the protection of public health and welfare of affected states. In addition, BOEM's current regulations do not include air quality impacts

over state coastal waters, which BOEM believes more accurately meets its statutory responsibility. Finally, revisions are also needed to address BOEM's responsibility to assess air quality impacts in the Arctic, as required by The Consolidated Appropriations Act, 2012 (P.L. 112-74).

The proposed regulations are designed to allow advances in science and assessment of air quality impacts to be flexibly and efficiently incorporated into BOEM's air quality rules, including results of the modeling studies currently underway. The modeling studies are intended to inform air quality requirements within the framework of the proposed regulations, not the framework itself. Consistent with BOEM's practice for scientific standards, the studies will be peer-reviewed and made public once final. Also, as BOEM's proposed regulation provides, any changes in the current emission exemption thresholds, which the models are designed to inform, would not occur until the studies are completed, and would not occur before BOEM gives notice in the *Federal Register* that it intends to revise the thresholds and provide an opportunity for public comment.

Conclusions about the environmental impact of OCS air emissions depend on the focus of review and the most recent science. In accordance with the National Environmental Policy Act (NEPA), BOEM takes a broad look at air quality, which is different from the site-specific standards that are established by the USEPA as the National Ambient Air Quality Standards (NAAQS) under Section 109 of the Clean Air Act (42 U.S.C. 7409).

In the NEPA analysis for the proposed rule, BOEM concluded there would be minimal impact from OCS emission sources. The analysis was premised on a more general review than BOEM performs under the Outer Continental Shelf Lands Act (OCSLA), and does not ensure there will be no exceedance of significant impact levels and no significant deterioration of state air quality. Those assessments are determined when BOEM reviews site-specific plans of operations. In that context, it is possible for emissions to exceed significant impacts levels or lead to deterioration of state air quality. Accordingly, it is necessary for BOEM to conduct not only a broad cumulative impact analysis, but a site-specific review of plans as well.

Question 3: BOEM is currently conducting air modeling studies to further understand the impacts of offshore operations to onshore state air quality.

- a. Please provide further details regarding the scope and status of these studies to the Committee, including when the studies are projected to be complete.
- b. What scientific studies will BOEM's upcoming air quality standards be based upon if the aforementioned air modeling studies are not yet complete?
- c. Please provide any scientific data collected by BOEM on air quality impacts of offshore energy development activities to the Committee.

Response to Question 3:

- a. BOEM is conducting two scientific air quality studies, one for the Arctic and the other for the Gulf of Mexico.

Arctic: BOEM began the Arctic Air Quality Modeling Assessment Study in September 2013, and expects to finish the study in 2018. An inventory of projected emissions and compilation of a meteorological dataset are completed. Computer-simulated modeling will soon begin. Following this modeling effort, the study will evaluate emission exemption thresholds and recommend any warranted revisions to the equations for BOEM's consideration.

Gulf of Mexico: BOEM began its Air Quality Modeling in the Gulf of Mexico Region Study in August 2014, and expects to finish the study in 2017. Specific objectives of the study include conducting air quality modeling to assess cumulative impacts analysis of OCS oil and gas activities to coastal states, and evaluating emission exemption thresholds and recommending any warranted revisions for BOEM to consider. A meteorological dataset has been compiled and an emissions inventory dataset has been completed. Photochemical modeling is underway to assess the cumulative impacts. After photochemical modeling is completed, the study will focus on the emission exemption threshold analysis.

- b. As discussed in the response to questions 1 and 2, the proposed regulations would continue the framework of the current BOEM air quality regulations. The NAAQS and the impact benchmarks such as the Significant Impact Levels (SILs) and the Ambient Air Increments (AAIs) referred to in the proposed revised rule are established by the EPA. The EPA has a substantial, ongoing portfolio of studies and assessments concerning NAAQS, SILS, and the AAIs, and other aspects of air quality management, many of which can be accessed through <https://www.epa.gov/science-and-technology/air-science-resources>. These and other studies support the standards and benchmarks that BOEM's proposed regulations would adopt by reference.
- c. Each of BOEM's approved plans as well as its NEPA analyses in the Gulf of Mexico and Alaska include data and analysis of air quality impacts. In addition, BOEM currently prepares emissions inventories, referred to as Gulf-wide Emissions Inventories, every three years. These inventories are available for calendar years 2000, 2005, 2008, and 2011. The 2014 inventory is currently under development. (see <http://www.boem.gov/Environmental-Stewardship/Environmental-Studies/Gulf-of-Mexico-Region/Air-Quality/GOADS.aspx>). This detailed emissions data includes all OCS oil and gas production-related sources, including platform and non-platform sources (such as support vessels).

Whether emissions in the future will significantly impact states will depend on projected emissions from facilities, modeling, and any revisions to standards and benchmarks made by the EPA. The health and welfare impacts of elevated levels of criteria pollutants is well documented and continually studied (for example, see studies referenced at <https://www.epa.gov/science-and-technology/air-science-resources>).

Question 4: When was the final DoD Mission Compatibility Planning Assessment for the 2017-2022 OCS Oil and Gas Leasing Draft Proposed Program first transmitted by DoD to any staff at the Department of the Interior?

Response: January 7, 2016.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 15 2016

The Honorable Doug Lamborn
Chairman
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
House of Representatives
Washington, D.C. 20515

Dear Chairman Lamborn:

Enclosed are responses prepared by the Bureau of Safety and Environmental Enforcement to questions submitted following the Subcommittee's March 2, 2016, oversight hearing on "The Impact of the President's FY 2017 Budget on the Energy and Mineral Leasing and Production Mission of the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environment Enforcement (BSEE), and the Bureau of Land Management (BLM)."

Thank you for the opportunity to provide this material to the Subcommittee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and Legislative Affairs

Enclosure

cc: The Honorable Alan Lowenthal
Ranking Member

Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
1324 Longworth House Office Building
Wednesday, March 2, 2016
10:00 A.M.

Oversight hearing on:

"The Impact of the President's FY 2017 Budget on the Energy and Mineral Leasing and Production Missions of the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BSEE), and the Bureau of Land Management (BLM)."

Questions from Chairman Lamborn for Director Salerno:

1. Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), 15 U.S.C. § 272(d), codified the policies of OMB Circular A-119, requiring "all Federal agencies and departments [to] use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." In public comment submitted on the well control rule, which was recently transmitted by BSEE to OMB for final review, several companies point to API standard 92L – Drilling Ahead Safely with Lost Circulation in the Gulf of Mexico.
 - a. Did BSEE staff participate in any way in the formulation of this standard?

Response:

BSEE's promulgation of the Well Control Rule was consistent with the NTTAA's requirement that agencies use technical standards that are developed or adopted by voluntary consensus standards bodies rather than government-unique standards, except where inconsistent with law or impractical. BSEE expressly proposed to incorporate the following voluntary consensus technical standards in its Well Control Rule:

- American Petroleum Institute (API) Standard 53 (Blowout Prevention Equipment Systems for Drilling Wells);
- American National Standards Institute (ANSI)/API Specification (Spec.) 11D1 (Packers and Bridge Plugs);
- ANSI/API Spec. 16A (Drill-through Equipment);
- API Spec. 16C (Choke and Kill Systems);
- API Spec. 16D (Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment);
- ANSI/API Spec. 17D (Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment); and

- ANSI/API RP 17H (Remotely Operated Vehicle Interfaces on Subsea Production Systems).

The document referenced by Chairman Lamborn is not considered a standard by API. API 92L is a “bulletin” and bulletins are not subject to the API procedures for standards development, including the voluntary consensus process. The process by which API Bulletin 92L was developed therefore does not constitute a “voluntary consensus standards development process” as defined in the NTTAA and OMB Circular A-119.¹ BSEE has participated extensively in API consensus standard processes; however, BSEE did not participate in the formulation of Bulletin 92L.

It should also be noted that agency participation in consensus standards bodies “does not connote agency endorsement or agreement with decisions by such bodies” and though the NTTAA maintains a “preference for voluntary consensus standards over government-unique standards...agencies may build on those standards as necessary to fulfill their obligations.”²

- b. Why did BSEE depart from drilling margins guidance outlined in this standard? How do BSEE’s updated drilling margin regulations contained in the well control rule deviate from API Standard 92L?

Response:

The development of a regulation to require a reasonable margin of safety between the Equivalent Circulating Density (ECD) and the pressure that would cause well bore fracturing – i.e., drilling margin – was a recommendation arising from the investigations that followed the *Deepwater Horizon* tragedy.

API Bulletin 92L was released in August 2015, which was three months after the publication of the proposed Well Control Rule and three years after BSEE had begun developing the proposed rule. Therefore, BSEE did not depart from the drilling margin guidance in Bulletin 92L because such guidance did not exist when the proposed rule was published. However, BSEE considered comments referencing Bulletin 92L and all other input received concerning drilling margins in developing the final rule.

2. What data or investigation has BSEE conducted or compiled to identify trends in drilling margins used in deepwater in the Gulf of Mexico since 2010? Please furnish this data to the Committee.

¹ A “voluntary consensus standard” is a type of standard developed or adopted by voluntary consensus standards bodies, through the use of a voluntary consensus development process that includes the following attributes or elements: openness, balance, due process, appeals process, and consensus. See OMB Circular A-119 (2015).

² OMB Circular A-119 (2015).

Response:

The drilling margin requirements contained in the final Well Control Rule represent the prevailing practice for downhole fluids programs for deepwater drilling in the Gulf of Mexico. Operators use the “minimum of one-half pound per gallon below the lesser of the casing shoe pressure integrity test or the lowest estimated fracture gradient” as the standard safe drilling margin and a majority of Applications for Permit to Drill (APD) propose to use a 0.5 pound-per-gallon (ppg) drilling margin.

There are certain circumstances in which a lower than 0.5 ppg drilling margin is proposed, typically for shallower well sections in non-hydrocarbon bearing zones. In these cases, BSEE relies upon its existing authority to evaluate alternative drilling procedures using a risk-based approach and approves them when appropriate.

3. Existing BSEE regulations (30 CFR 427(b)) state: “While drilling, you must maintain the safe drilling margin identified in the approved APD. When you cannot maintain this safe margin, you must suspend drilling operations and remedy the situation.” In accordance with 30 CFR 250.465, an Application for Permit to Modify (APM) must be submitted if the driller intends to revise the submitted drilling plan in the APD. An oral approval can be granted, however an APM “BSEE-0124” still must be filed in a timely manner.
 - a. How many BSEE-0124 forms have been filed for deepwater operations, on an annualized basis, since 2010 for the purposes of requesting an adjustment to drilling margins contained in the original APD?

Response:

There have been ten APMs (BSEE-0124 forms) filed since 2010 for adjusting drilling margins from the original APD. On an annualized basis, they are as follows:

- 2010 – 0
 - 2011 – 0
 - 2012 – 0
 - 2013 – 2
 - 2014 – 3
 - 2015 – 2
 - 2016 – 3 (As of April)
- b. Of these forms filed since 2010, how many of the forms submitted drilling margins below 0.5 ppg?

Response:

All ten operators initially used 0.5 pounds-per-gallon (ppg) as the lower-bound for a safe drilling margin in their original APD, but all submitted APMs requesting

approval for lower drilling margins. BSEE then evaluated the requests by performing risk analyses and considering any proposed risk mitigations.

- c. Of the forms submitted demonstrating an adjusted drilling margin that was below 0.5 ppg, how many of these same operations encountered serious well control events specifically related to drilling margins that were referred to the safety and incident investigations unit or the investigations review unit?

Response:

Of these ten, one resulted in a loss of well control incident. The incident, which occurred in 2014, caused 55 barrels of mud to be blown onto the rig floor and led to a BSEE district investigation.



United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, DC 20240

JUN 16 2016

The Honorable John Fleming
Chairman
Subcommittee on Water, Power and Oceans
Committee on Natural Resources
House of Representatives
Washington, D.C. 20515

Dear Chairman Fleming:

Enclosed are responses prepared by the U.S. Fish and Wildlife Service to questions submitted following the Subcommittee's March 22, 2016, oversight hearing titled "Examining the Missions and Impacts of the President's Proposed Fiscal Year 2017 Budgets of the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Bureau of Reclamation and the Power Marketing Administrations."

Thank you for the opportunity to provide this material to the Subcommittee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and Legislative Affairs

Enclosure

cc: The Honorable Jared Huffman
Ranking Member

**House Committee on Natural Resources
Subcommittee on Water, Power and Oceans
1324 Longworth House Office Building
Tuesday, March 22, 2016
2:00 P.M.**

Oversight Hearing:

"Examining the Missions and Impacts of the President's Proposed Fiscal Year 2017 Budgets of the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Bureau of Reclamation and the Power Marketing Administrations."

Questions from Rep. Gosar for Deputy Director Jim Kurth:

- 1. Question: On May 20, 2015, the Service issued a News Release that established new boating restrictions and expanded the no wake zone within the Havasu National Wildlife Refuge, effectively closing motorized boating in an area that had been utilized by recreational enthusiasts for decades. This order was "effective immediately" and the newly closed areas were quickly marked with regulatory buoys and signs. This order was implemented by the acting refuge manager without engaging local stakeholders or providing an opportunity for public comment. These arbitrary closures also became effective two days before Memorial Day Weekend, a very important tourist weekend for Lake Havasu. Why was there no public comment period?**

Current regulations, 50 CFR 25.21, grant the Refuge Manager authority to close an area of concern or to restrict uses without advance notice or public comment when there are concerns about public safety or potential damage to resources. Since 2005, 17 miles of the Colorado River on the Havasu National Wildlife Refuge (Refuge or NWR) preclude the use of personal watercraft and wake in backwaters as indicated by signs and buoys, water-skiing, tubing, wake boarding, and other recreational towed devices (refer to 50 CFR 32.22) because these uses can cause conflict with priority public uses and have the potential to adversely impact biological resources. The Service issued a public notice on May 20, 2015 extending the 17-mile restrictions of these wake-causing activities by an additional ½ mile of backwater (refer to Public Notice). The area remains accessible and open for other uses at no-wake speeds, such as motorized boating, kayaking, canoeing, and fishing, among other activities.

The Service's enforcement of the no-wake zone was established based on the following facts as identified by Service staff and visitors: (1) wake-causing motorized boating in the area is negatively impacting crucial riparian and wetland habitat needed for foraging, breeding, loafing and nesting for a wide variety of residential and migrating birds including the Clarks and Western grebe and endangered Ridgeway's rail; (2) wake-causing motorized boating in the area endangers non-motorized boaters because wakes generated by high speed motorized boats in narrow channels and backwaters cannot readily dissipate resulting in unsafe conditions and potential to capsize or swamp non-motorized users; (3) wake-causing motorized boating in the area is impacting other Refuge-dependent wildlife through shoreline erosion of their habitat,

bird strikes, vegetation destruction and floating nest disturbance. The Service takes all concerns regarding risks to visitor and natural resource safety seriously and is committed to being responsive when conflicts arise. Safety concerns regarding wake speeds and water depth brought to the attention of Refuge management prompted further evaluation of uses impacting refuge resources.

The Refuge experiences a high volume of visitors, particularly on holiday weekends. With historically high numbers of people operating motorized boats at high speed in the no-wake backwater in question, the potential for risks to health and public safety required timely attention. Previous studies have indicated that water-skiing boats should allow a safety area of at least 100 feet on either side of their boat (Bostian 2005¹). Where side channels and backwaters within the Refuge are less than 250 feet wide, a high-speed boat may not be able to safely share the waterway with a non-motorized craft. Service law enforcement officers have issued citations for reckless watercraft operation within the area in question for this reason.

Within 50 CFR 25.21 (e) is a provision granting authority to the Refuge Manager to close areas of concern or to restrict uses due to public safety or property threat concerns without advance notice or public comment. The provision states, "In the event of a threat or emergency endangering the health and safety of the public or property or to protect the resources of the area, the Refuge Manager may close or curtail refuge uses of all or any part of an opened area to public access and use in accordance with the provisions in § 25.31, without advance notice." The Refuge found the no-wake designation in the backwater known to some visitors as "speed alley" to be a necessary action for the continued safety of the public and the protection of area resources.

- 2. Question: A FOIA request from Rep. Gosar revealed multiple emails from the Acting Refuge Manager indicating she believed the Service couldn't arbitrarily close the channel and if they chose to pursue such a closure the agency would be required to hold a 30-60 day public comment period. An email from the acting refuge manager's boss stating that a closure would likely meet resistance and require NEPA compliance was also discovered in the request. Why did those opinions change?**

The emails in question were internal discussions contemplating the needed actions to address conflicting recreational uses and impacts to wildlife habitat. Both of these individuals were fully aware of NEPA requirements, but not the history of previous actions at the Havasu National Wildlife Refuge. Upon checking records, they learned that a full NEPA process had already been conducted. The NEPA process included opportunities for public involvement and set the foundation for the Refuge's 1994 Conservation Management Plan (CMP). Since NEPA had already been completed, recreational restrictions were considered through Categorical Exclusion. Categorical Exclusions are "actions which meet the definition contained in 40 CFR 1508.4 (and 43 CFR 46.205), and, based on past experience with similar actions, do not involve significant environmental impacts." Because the 17 river miles to the north of the ½ mile no-wake backwater already held restrictions prohibiting personal watercraft and wake in backwaters as

¹ Bostian, Julie. 2005. About.com Waterskiing/Wakeboarding. How to Drive a Boat and Ski Responsibly in Traffic. <http://waterski.about.com/cs/driverscorner/ht/DriveRespons.htm>

indicated by signs and buoys, water-skiing, tubing, wake boarding, and other recreational towed devices, the Service found it appropriate to issue a Categorical Exclusion for the ½ mile extension and was not required to hold additional opportunities for public comment. This authority is addressed in 50 CFR 25.21 (e) and 516 DM-8.5 A. (1) and (2). (refer to 516 DM-8.5 A Categorical Exclusions).

In addition, on September 13, 2005 (70 FR 54146), the Havasu NWR regulations were revised in the Code of Federal Regulations (CFR) and paragraph D incorporated subparagraphs 1 through 6 (refer to CFR 32.22). The proposed changes to the CFR were published and the public had an opportunity to comment at that time. Because these regulations were already established, the Refuge Manager was acting within their authority to create the no-wake zone without additional public comment.

The Refuge is now in the process of reviewing public comment for a draft Recreational Boating Compatibility Determination (CD) to evaluate all boating uses on the Refuge. The public comment period closed on June 13, 2016. Three public meetings were held, including on May 2 from 6:00 – 8:00 p.m. in Lake Havasu City, Arizona; May 3 from 1:00 – 3:00 p.m. in Laughlin, Nevada; and May 3 from 6:00 – 8:00 p.m. in Laughlin, Nevada.

- 3. Question: On July 10, 2015 the Service sent a poorly worded response to the June 24th letter stating that the "Service recognizes the importance of public involvement in decisions regarding visitor use on the Refuge ... [and] will initiate a review of the overall recreation boating program occurring on the Refuge. This will include soliciting public input from all users of the Refuge." The Service went on to state that existing restrictions will remain in place "till" that occurs. Nearly a year later, no public comment period has commenced and recreational motorized boating at the north end of Lake Havasu has remained closed. At the hearing Deputy Director Kurth indicated that a public comment period on this matter would begin soon. Yet, on a conference call on 3.31.2016 with the Service and members of Rep. Gosar's staff, the service indicated that they would hold a public comment period in April 2016 and that a public meeting would be held in May 2016 on the Service's desire to initiate a compatibility determination for all boating areas within the refuge. In the July 10, 2015 letter, the Service indicated this process was supposed to begin last fall. However, staff indicated that reopening the extended no wake zone area arbitrarily closed by the Service would not be considered as an option during that process. Why not? Will this public comment process actually begin in April? Will a public meeting actually occur in May? When will the notice for these two items go out?**

Current regulations grant the Refuge Manager the authority to close an area of concern or to restrict uses without advance notice or public comment. However, the Service recognizes the importance of public involvement on our National Wildlife Refuge and has invited public participation in the evaluation of a draft Recreational Boating CD for Havasu NWR. The originally-anticipated timeline for providing public comment on a draft CD was last fall. However, the process for developing a draft CD may be prolonged as it requires reviews from

multiple offices within the Department of the Interior to ensure compliance with various policies and regulations. The completion of the draft document is a prerequisite to public comment.

The draft CD is available for review and public comment as of April 12, 2016 at the following site: <http://www.fws.gov/refuge/havasu/>. Comments were accepted through close of business on June 13, 2016. The Service hosted three public meetings as mentioned above. Comments were accepted at the public meetings, by standard mail as indicated on the Refuge website listed above, and by email to Havasu_Boating_Comments@fws.gov

- 4. Question: In the July 10 letter, the Service stated this arbitrary closure was allowed under its regulations in the form of (50 CFR 32.22). That particular regulation deals with regulations for hunting and fishing in the Refuge, not motorized boating. Was that a mistake in the July 10th letter? What regulations do authorize this closure if it was? In the hearing, the Deputy Director also indicated a public comment process occurred when this particular regulation was implemented. Staff indicated on the conference call that they think that was in 1994. A public comment period more than 20 years ago should never be used to say you did hold a public comment period before taking this action. No one envisioned the repercussions of this closure at that time or that the Service would take such action. Do you still believe today that comment period in 1994 is sufficient public comment on this matter?**

The Service's enforcement of the no-wake designation was established based on the following facts as identified by Service staff and visitors: (1) wake-causing motorized boating in the area is impacting crucial riparian and wetland habitat needed for foraging, breeding, loafing and nesting for a wide variety of residential and migrating birds including the Clarks and Western grebe and endangered Ridgeway's rail ; (2) wake-causing motorized boating in the area endangers the safety of non-motorized boaters; (3) wake-causing motorized boating is impacting Refuge-dependent wildlife in the area by causing shoreline erosion of habitat, bird strikes, vegetation damage and floating nest disturbance.

The Service completed a Comprehensive Management Plan (CMP) in 1994 for Havasu NWR. Four public meetings were held in Arizona and California in 1991. The CMP outlined goals to reduce levels of non-wildlife oriented recreation on the river channel passing through the lower Colorado River Refuges, eliminate all non-wildlife oriented recreation that is not compatible with the missions of the National Wildlife Refuge system and the individual Refuges, increase the quality visitor experience on the Refuges related to natural values, and raise public awareness of lower Colorado River ecosystem values. Although the CMP was completed in 1994, the aforementioned goals remain in effect today. A NEPA process that included opportunities for public involvement was completed for the 1994 CMP. Since subsequent recreational restrictions were conducted through Categorical Exclusions under NEPA, the Service had no requirement to provide additional opportunities for public involvement on those restrictions. In this case, the no-wake designation was categorically excluded from NEPA review pursuant to 516 DM-8.5 A. (1) and (2), under the two following categories. "Changes or amendments to an approved action when such changes have no or minor potential environmental impact," and (2) "Personnel training, environmental interpretation, public safety efforts, and other educational activities, which do not involve new construction or major additions to existing facilities."

In addition, on September 13, 2005 (70 FR 54146), the Havasu NWR regulations were revised in the Code of Federal Regulations (CFR) and paragraph D incorporated subparagraphs 1 through 6. The proposed changes to the CFR were published and the public had an opportunity to comment on those changes at that time. Although the header for this CFR relates to Sport Fishing, all boating regulations for Havasu NWR fall under this category (refer to 50 CFR 32.22).

- 5. Question: The arbitrary notice your agency posted a couple days prior to Memorial Day Weekend without public comment that shut down motorized boating in the back channel (mouth) at the north end of Lake Havasu is outrageous. How do you justify making this closure without public comment, especially as a special needs child and other recreational enthusiasts have enjoyed motorized boating activities in this area for multiple decades?**

The notice issued on May 20, 2015 extends the existing 17-mile regulation to include a ½ mile backwater (refer to Map 1). However, the area remains open to motorized and non-motorized boating in the back channel (mouth) at the north end of Lake Havasu at no-wake speeds. The Fish and Wildlife Service Manual 603 FW 2 states the Service will "...reevaluate compatibility determinations for all existing uses other than wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or at least every 10 years, whichever is earlier. Additionally, a Refuge Manager always may reevaluate the compatibility of a use at any time." Although wake-causing watercraft have historically used this portion of the Refuge, it was the Service's responsibility to reevaluate this use when evidence that such use may not be in the best interest of the Refuge's trust resources and public safety.

After assessing the risk raised by concerned visitors and considering other evidence of the negative effects of wake-causing motorized watercraft to Refuge resources in this area, the Refuge Manager determined the extension of the current regulations to include the ½ mile backwater to be necessary. The Service's designation as a no-wake zone was pursuant to 50 CFR 32.22, which states that the Refuge limits watercraft speed as indicated by signs or regulatory buoys to no-wake (as defined by State law) in all backwaters. In addition, the Code of Federal Regulations already prohibits personal watercraft and wake in backwaters as indicated by signs and buoys, water-skiing, tubing, wake boarding, or other recreational-towed devices from the south regulatory buoy line to the north regulatory buoy line at Interstate 40 (refer to Map 1). The ½ mile no-wake zone was a small addition to the existing 17-mile regulation.

- 6. Question: On the conference call on 3.31.2016 Service staff indicated that an increase in boating violations in this area were part of the reason for this closure and that there had been 12 citations since 2012. That's around three per year. The Service also indicated that the impact on migratory bird habitat contributed to the closure. Yet, Service staff admitted that they had no data or environmental studies which documented any wash outs of threatened or endangered species nests prior to making this arbitrary decision. In fact, when asked if wakes had harmed wildlife in this area, staff stated, "I assume the answer is yes." "Assume" proves there was no**

proof. So which was it? Were the May 2015 restrictions imposed because of safety or wildlife concerns?

The Service imposed the May 2015 restrictions due to concerns related to the safety of the public and impact to wildlife and their habitat found on the Refuge. The Refuge must consider visitor safety and the protection of natural resources in all management actions. As the hydrology of the river changes, new backwaters establish and areas once suitable for recreation become less safe. According to the Bureau of Reclamation's Open Data Water Initiative, "Since 2000, the Colorado River Basin has experienced the driest 16-year period in over 100 years of historical natural flows (Bureau of Reclamation, 2015²). This period also ranks as the fifth driest 16-year period in the last 1,200 years (Meko et al., 2007a and 2007b³)." They state that "due to year-to-year differences in precipitation and snowmelt, the natural water supply of the Basin is highly variable." Due to recent concerns expressed by community members over the need to provide safe opportunities for non-motorized boaters, the concern over the presence of shallow areas which continue to experience fluctuating water levels (refer to Map 3), and the impacts to trust resources, the Service is reassessing overall boating activities at Havasu NWR and will continue to do so as hydrology changes.

Recreational boating has the potential to adversely impact Refuge habitats and wildlife. Service staff and visitors have witnessed the flushing of birds, nest disturbance, bird strikes, and habitat destruction from wake-causing motorized boating. Because boats produce emissions, turbulence from propulsion, wakes, pollution and noise, the Service must evaluate where these specific uses may occur as these factors may affect wildlife use patterns, use of particular habitats, feeding behavior and early departure of migratory birds dependent on the Refuge as a resting ground. As the land management agency responsible for the protection of endangered species such as the Ridgeway's Rail, Southwestern willow flycatcher and the razorback sucker, all potential impacts to these species must continue to be evaluated.

The Service follows established regulations and policies before implementing any changes on the Refuge. 50 CFR 25.21 (e), states that, "In the event of a threat or emergency endangering the health and safety of the public or property or to protect the resources of the area, the Refuge Manager may close or curtail refuge uses of all or any part of an opened area to public access and use in accordance with the provisions in § 25.31, without advance notice."

The total number of overall motorized boating-related violations on Havasu NWR since 2012, was 712. Of these, 93 were considered "wake zone" violations. Issued during January 2012 to December 31, 2015, these violations were of the following three regulations:

1. 50 CFR § 26.22(a) - Failure to follow regulatory buoys.
2. 50 CFR § 27.32(a) - Unauthorized use of a boat.
3. 50 CFR § 27.32(b)(1)(ii) - per Arizona Revised Statute 5-343 or Arizona Game & Fish Commission rule R12-4-523 operate vessel above wakeless speed.

² Bureau of Reclamation. 2015. OWDI Drought -<http://schema.org> - Organization - U.S. Interior - <https://www.doi.gov/water/owdi.cr.drought/en/>

³ Meko, D. M., C. A. Woodhouse, C. A. Baisan, T. Knight, J. J. Lukas, M. K. Hughes, M. W. Salzer. 2007. Medieval drought in the upper Colorado River Basin. <https://www.doi.gov/water/owdi.cr.drought/en/>

Within the ½ mile no-wake backwater in question, the Service has issued at least 12 violations since 2012. However, the Service has an obligation to evaluate all uses for compatibility with Refuge purposes and the NWR System mission, notwithstanding the number of violations of Federal regulations. The NWRS Improvement Act of 1997 (Act) states that wildlife conservation is the priority of NWR System lands and that the Secretary of the Interior shall ensure that the biological integrity, diversity, and environmental health of Refuge lands are maintained. Each Refuge must be managed to fulfill the specific purposes for which the Refuge was established and the NWR System mission. On January 22, 1941, President Franklin Roosevelt signed Executive Order No. 8647, which established Havasu National Wildlife Refuge. The order stated that 37,870 acres would be set apart for use by the Department of the Interior as a refuge and breeding grounds for migratory birds and other wildlife. The NWR System mission states that each refuge is to conserve, manage, and where appropriate, restore fish, wildlife, and plant resources and their habitats. Through implementation of this extended boating restricted backwater, the Service was acting in accordance with the Improvement Act and the purpose of the Refuge.

In addition, the 1994 CMP has a goal to protect wildlife resources by implementing the appropriate zoning policy for sensitive areas of the refuges, especially those pertaining to endangered species. Each Refuge Manager is responsible for reviewing existing refuge zoning regulations and implementing zones that take into account Refuge purposes and the proximity to other jurisdictions that are more conducive to the non-wildlife oriented uses (i.e., water-skiing areas, jet skiing areas like Lake Havasu).

The Service has the authority to move buoy lines to enforce no-wake regulations as hydrology changes and backwaters develop on the Refuge. The Service also has the responsibility to protect important bird habitat for species such as the endangered Ridgeway's rail and Clarks and Western grebe, which are known to reside in these areas. On the March 31, 2016 call, Refuge staff stated that they had witnessed impacts to Clarks and Western grebe but because the endangered Ridgeway's rail is a secretive marsh bird, the extent of impacts to this species is hard to quantify. However, Havasu NWR is located within a major north-south migratory route known as the Pacific Flyway. Hundreds of migratory birds, which are protected by the Migratory Bird Species Act and in some cases the Endangered Species Act, rely on the Refuge to rest and feed as they migrate through. Many bird species also breed and overwinter on the Refuge in the vicinity of the no-wake zone in question. Because of its value to migratory birds, the Refuge has been designated an Important Bird Area in the state of Arizona. The Refuge is required to maintain this biological integrity, diversity, and environmental health for the benefit of migratory birds and all other species that feed, breed, and shelter on the Refuge.

7. Question: On the conference call on 3.31.2016, the Service admitted that the idea to close this area was first initiated by complaints made by two paddle boaters. Is it fair to close an area that has been utilized for motorized boating by numerous people for more than 30 years as a result of complaints from two people?

On the March 31, 2016 conference call, the Service did not state that “the idea to close this area was first initiated by complaints made by two paddle boaters.” However, it was confirmed that

we have received complaints about the use of wake-causing motorized boats in the area in question by several members of the public, including concerns about water depth. The Refuge takes visitor safety seriously and the concerns initiated further evaluation of Refuge uses currently taking place. When considering the impacts to visitor safety, quality experiences for priority public uses and the biological integrity of refuge resources, the Service determined that the enforcement of the ½ mile no-wake zone is necessary.

The Service is gathering contact information from all parties who have inquired about the extension of the ½ mile no-wake backwater. To date, 28 private individuals and six organizations (Yuma Audubon, Phoenix Audubon, Friends of Bill Williams River and Havasu NWRs, Lake Havasu Marina Association, Lake Havasu City Manager, and Anglers United) have contacted the Service regarding this issue. Comments received are from a mix of local and out-of-state parties, and they include both positive and negative opinions regarding the Refuge's regulatory extension. These parties have all been contacted and informed regarding the opportunity to review and comment on the draft Recreational Boating Compatibility Determination as well as the upcoming public meeting date.

8. Question: Will you reopen the area closed to motorized boating with the May 2015 restrictions and go through a public comment process for activities within the area in question? If not, why not?

The Service made a determination to extend current boating restrictions to include a ½ mile backwater area. Motorized boats are still authorized to use the area. After assessing the risks raised by concerned visitors, the Service will continue to enforce this no-wake zone. The no-wake designation of the ½ mile backwater was made pursuant to 50 CFR 32.22 which allows the Service to limit watercraft speed as indicated by signs or regulatory buoys to no-wake (as defined by State law) in all backwaters. Although this area will remain designated no-wake, the Service welcomes public comment on recreational boating Refuge-wide in the draft Recreational Boating Compatibility Determination. All pertinent comments will be considered.

9. Question: Word has gotten out about this closure and tourists have cancelled trips and Havasu is losing money as a result. What should I tell small business in the area who are being harmed by your arbitrary decision?

The Service is not aware of tourists cancelling trips to the Refuge as a result of this decision. The Service will consider all comments during the public comment period regarding the draft Compatibility Determination.

Refuge visitors engage in priority public uses including hunting, fishing, wildlife observation and photography, environmental education and interpretation. Regardless of the Service's no-wake zone decision, visitors continue to visit Havasu NWR and bring commerce to the local area. To highlight one of the many user communities that visit the Refuge, anglers and fishing groups are some of the highest users of Lake Havasu. High-grossing fishing tournaments continue to bring these wildlife-dependent users to the area. According to Lake Havasu City's Convention and Visitors Bureau, fishing tournaments on Lake Havasu can require up to \$200 solely for team admission. The fishing community will continue to use boating vendors in the Havasu area and

fishing continues to be allowed in the ½ mile no-wake backwater. As another example of tourist activities, the Refuge is part of a major migratory bird migration route along the western coast of the United States making Havasu NWR a birding hotspot with 318 bird species drawing in bird enthusiasts and wildlife photographers, all of whom will continue to add to the local economy.

Currently, 17 miles of the Colorado River on the Refuge preclude personal watercraft and wake in backwaters as indicated by signs and buoys, water-skiing, tubing, wake boarding and the use of other recreational towed devices. The ½ mile no-wake zone in question is a minor extension of that current restriction. To the North and South of the Refuge ample opportunities continue to be available for alternative types of recreational boating including nearly 19,300 acres at Lake Havasu alone. Motorized and non-motorized boating will continue to be a high-use activity on Lake Havasu but it is the Service's responsibility to ensure the quality of wildlife-dependent recreational uses and wildlife protection.

10. Question: What should I tell community members and recreational enthusiasts who have contacted my office in significant numbers and expressed outrage?

The ½ mile of no-wake regulation in question is within the 700 acre area (refer to Map 2). Local residents have raised concerns that the shallow water and space available is not conducive to high speeds. For the safety of all Refuge visitors the no-wake backwater will remain enforced. However, it is also important to note that the ½ mile backwater is not closed to the public. Boats are welcome to continue to enjoy this area at no-wake speeds.

A 1999 boating capacity study of Lake Havasu concluded that the safe boating capacity for Lake Havasu is 1,250 boats and that number has already been exceeded. As provided for under the Act, the Service has found it necessary to regulate sensitive areas and areas with visitor safety concerns by limiting wake speeds to those that support the priority public uses.

Approximately 30 Colorado River miles occur on Havasu National Wildlife Refuge (refer to Map 1) 17 of which already enforce boating restrictions. Areas South of the Refuge on Lake Havasu and North of the Refuge in the river channel provide ample opportunities for multiple boating activities (where wakes are not restricted) including water-skiing, wake boarding, and tubing. The Lake Havasu reservoir is approximately 19,300 acres in size and open to these activities, while only approximately 700 acres (3.6% of the total acreage) of the reservoir are on the Refuge.

11. Question: What should I tell the special needs child who no longer has a safe place to wakeboard as a result of this arbitrary closure?

While the area may have appeared to be a safe place for wake-causing motorized boating activities in the past, conflicting uses between high-speed visitors and wildlife-dependent visitors have become more apparent. The small, narrow area in question known as "speed alley" does not have the depth or space needed to accommodate wake-causing activities while still protecting the people and resources around it. Should visitors choose to operate at wake-speeds, Lake Havasu is easily accessible from this area.

The Service is committed to conserving natural resources, and we encourage the next generation of land and wildlife stewards to learn and enjoy Refuge lands. We want to ensure that the visitor uses on the Refuge remain safe and consistent with the priorities of the National Wildlife Refuge System and we look forward to continuing to offer these opportunities. Alternatively, the no-wake backwater is located just north of the larger Lake Havasu Reservoir, which provides approximately 19,300 acres of non-wildlife-dependent areas to recreate.

ATTACHMENTS

Regulations Authorizing the Implementation of the No-wake Zone

Refuge Improvement Act of 1997

Emphasis on Conservation and Biological Integrity

The Refuge Administration Act states that the Secretary shall provide for the conservation of fish, wildlife and plants, and their habitats within the System as well as ensure that the biological integrity, diversity, and environmental health of the System are maintained. The Refuge Administration Act requires the Service to monitor the status and trends of fish, wildlife, and plants in each refuge.

Purposes and the System Mission Drive Management

Under the Refuge Administration Act, each refuge must be managed to fulfill the Refuge System mission as well as the specific purposes for which it was established.

Priority Public Uses/ "The Big Six"

The Act also declares that compatible wildlife dependent recreational uses are legitimate and appropriate priority general public uses of the Refuge System. There are six uses— hunting, fishing, wildlife observation and photography, and environmental education and interpretation—that receive enhanced consideration in planning and management over all other general public uses of the Refuge System. When compatible, these wildlife-dependent recreational uses are to be strongly encouraged.

Havasu National Wildlife Refuge Purpose

On January 22, 1941, President Franklin Roosevelt signed Executive Order No. 8647, which established the Refuge. The order stated that 37,870 acres would be set apart for use by the Department of the Interior as a refuge and breeding grounds for migratory birds and other wildlife. Additional lands totaling 2,757 acres were subsequently added on February 11, 1949, per Public Land Order 559.

Mission of the National Wildlife Refuge System

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

50 CFR 25.21 (e),

In the event of a threat or emergency endangering the health and safety of the public or property or to protect the resources of the area, the Refuge Manager may close or curtail refuge uses of all or any part of an opened area to public access and use in accordance with the provisions in § 25.31, without advance notice.

50 CFR 32.22

Sport Fishing. We allow fishing on designated areas of the refuge in accordance with State regulations (Colorado River specific regulations apply) subject to the following conditions:

1. We prohibit the use of all air-thrust boats or air-cooled propulsion engines, including floating aircraft.
2. We prohibit overnight boat mooring and shore anchoring unless actively fishing as defined by State regulations (see § 27.93 of this chapter).
3. Anyone hired to assist or guide anglers must obtain, possess, and carry a valid Special Use Permit issued by the refuge manager.
4. The following apply only on Topock Marsh:
 - i. We close designated portions to all entry from October 1 through the last day of the waterfowl hunt season (including the State junior waterfowl hunt).
 - ii. We close designated portions to all entry from April 1 through August 31. These areas are indicated in refuge brochures and identified by buoys and or signs.
 - iii. We prohibit personal watercraft (PWC, as defined by State law).
5. The following apply to all waters of the Colorado River within Havasu NWR from the south regulatory buoy line to the north regulatory buoy line at Interstate 40 (approximately 17 miles [27.2 km]).
 - i. We prohibit personal watercraft (PWC, as defined by State law) as indicated by signs or regulatory buoys in all backwaters.
 - ii. We limit watercraft speed as indicated by signs or regulatory buoys to no wake (as defined by State law) in all backwaters.
 - iii. We prohibit water-skiing, tubing, wake boarding, or other recreational towed devices.
6. The following apply to the Mesquite Bay areas of Lake Havasu.
 - i. We prohibit entry of all watercraft (as defined by State law) in all three bays as indicated by signs or regulatory buoys.
 - ii. The Mesquite Bays are Day Use Only areas and open from 1 hour before legal sunrise to 1 hour after legal sunset.”

The 17-mile zone mentioned above is indicated by medium blue on the attached Havasu Water Activity map. The darker blue shading on both ends of the 17-mile zone reflects the remainder of River miles on Havasu National Wildlife Refuge (~30 river miles total).

On September 13, 2005, Refuge regulations were revised in the CFR. The public had an opportunity to comment on the proposed changes at that time.

516 DM-8.5 A. Categorical Exclusions

Categorical Exclusions. Categorical exclusions are classes of actions which do not individually or cumulatively have a significant effect on the human environment. Categorical exclusions are not the equivalent of statutory exemptions. If exceptions to categorical exclusions apply, under 516 DM 2, Appendix 2 of the Departmental Manual, the Departmental categorical exclusions cannot be used. In addition to the actions listed in the Departmental categorical exclusions outlined in Appendix 1 of 516 DM 2, the following Service actions are designated categorical exclusions unless the action is an exception to the categorical exclusion.

A. General.

- (1) Changes or amendments to an approved action when such changes have no or minor potential environmental impact.
- (2) Personnel training, environmental interpretation, public safety efforts, and other educational activities, which do not involve new construction or major additions to existing facilities.
- (3) The issuance and modification of procedures, including manuals, orders, guidelines, and field instructions, when the impacts are limited to administrative effects.
- (4) The acquisition of real property obtained either through discretionary acts or when acquired by law, whether by way of condemnation, donation, escheat, right-of-entry, escrow, exchange, lapses, purchase, or transfer and that will be under the jurisdiction or control of the United States. Such acquisition of real property shall be in accordance with 602 DM 2 and the Service's procedures, when the acquisition is from a willing seller, continuance of or minor modification to the existing land use is planned, and the acquisition planning process has been performed in coordination with the affected public.

Fish and Wildlife Service Manual 603 FW 2

States the Service will "...reevaluate compatibility determinations for all existing uses other than wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or at least every 10 years, whichever is earlier. Additionally, a Refuge Manager always may reevaluate the compatibility of a use at any time."

Comprehensive Management Plan (CMP)

In 1994 the U.S. Fish and Wildlife Service (Service) completed a Comprehensive Management Plan (CMP) for the lower Colorado River refuges. The CMP specifically addressed boating in the following goals and objectives:

- Goal #12 is to reduce levels of non-wildlife oriented recreation on the River channel that runs through the lower Colorado River refuges, to eliminate all non-wildlife oriented recreation that is not compatible, to increase the quality experience related to natural values by all River visitors, and to raise public awareness of the lower Colorado River ecosystem values.
- Objective #2 under Goal #12 is to protect wildlife resources by implementing the appropriate zoning policy for sensitive areas of the Refuges, especially those pertaining to endangered species. Each Refuge Manager will review existing Refuge zoning regulations and implement zones that take into account Refuge purposes and the proximity to other jurisdictions that are more conducive to the non-wildlife oriented uses (i.e., water-skiing areas, jet skiing areas).

Additionally, the CMP provided a list of secondary uses not planned to occur at any of the lower Colorado River National Wildlife Refuges because they do not conform to uses which could be, in a regulated manner, "compatible" with the purposes of the Refuge, or they have been

determined to be harmful to Refuge resources. Water-skiing was specifically included on this list. The CMP underwent public comment in 1991 and NEPA prior to its completion in 1994.

During the CMP planning process, meetings were held with the following agencies and organizations: Arizona Game and Fish Department; California Department of Fish and Game; Nevada Department of Wildlife; California Department of Parks and Recreation; Arizona State Parks; BLM; Bureau of Indian Affairs; Department of the Air Force; Chemehuevi Indian Tribe; Fort Mojave Indian Tribe; Colorado River Indian Tribe; City of Lake Havasu, Arizona; City of Blythe, California; City of Needles, California; Colorado River Environmental and Wildlife Society (Martinez Lake, Arizona); Sierra Club; Audubon Society; Yuma Rod and Gun Club; Palo Verde Rod and Gun Club; Lake Havasu City Chamber of Commerce; Parker Arizona Chamber of Commerce; Golden Shores/Topock Chamber of Commerce; Arizona Wildlife Federation; Arizona Department of Environmental Quality; Arizona Department of Water Resources; Arizona State Lands Department; Arizona Nature Conservancy; Lake Havasu City Bass Club; and Arizona Trappers Association. The U.S. Bureau of Reclamation was also a cooperating agency in this project.

Public meetings were held as follows:

- August 28, 1991, Yuma, Arizona
- August 29, 1991, Blythe, California
- August 30, 1991, Lake Havasu City, Arizona
- August 31, 1991, Needles, California



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 20 2016

The Hon. Jim Jordan
Chairman
Committee on Oversight and Government Reform
Subcommittee on Healthcare, Benefits and Administrative Rules
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed are responses prepared by the Department to the questions for the record submitted following the December 8, 2015, joint hearing of the Subcommittees on the Interior and on Healthcare, Benefits and Administrative Rules entitled "*Examining the Stream Protection Rule.*"

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and
Legislative Affairs

Enclosure

cc: The Honorable Matt Cartwright, Ranking Member
Committee on Oversight and Government Reform,
Subcommittee on Healthcare, Benefits, and Administrative Rules

Joint Subcommittee Hearing before the
Committee on Oversight and Government Reform
Subcommittee on the Interior and the
Subcommittee on Healthcare, Benefits, and Administrative Rules
U.S. House of Representatives
Department of the Interior
December 8, 2015
“Examining the Stream Protection Rule”

Questions from Chairman Cynthia Lummis

1. OSM’s Regulatory Impact Analysis for the proposed rule states that the rule would result in the loss of coal mining jobs but that many of these would be offset with jobs created just to keep up with compliance with the rule. **Assistant Secretary, in your view, how are temporary compliance jobs designed to oversee the death of an industry a suitable replacement for high paying long-term coal jobs?**

Response: We appreciate the opportunity to respond to this important question and provide further clarity about the proposed stream protection rule. The decline in coal usage and production during the past few years is largely a function of the increased availability of low-cost natural gas and lower coal demand resulting from the retirement of aging coal-burning generators. Many newer power plants that have the capability of burning either coal or gas generally have switched to gas. Competition among power suppliers for the wholesale electricity market also has resulted in the retirement of some older, less-efficient coal-fired power plants for which upgrades and retrofits to meet air quality requirements are not cost-effective. In addition, the strong dollar, which is influenced by low oil prices and reduced dependency on foreign oil, has weakened the competitiveness of U.S.-produced coal in the export market. Coal exports declined 23% in 2015, falling for the third consecutive year. Cumulatively, these factors have resulted in reduced demand for coal, thereby depressing coal prices.

Under the proposed rule, certain employment opportunities would be created in response to the proposed changes in the regulatory environment. According to the draft Regulatory Impact Analysis, compliance-related jobs may include performing inspections, conducting biological assessments, and other tasks that require employment of highly trained professionals (e.g., engineers and biologists) as part of compliance with some elements of the rule. Other increased work requirements associated with elements of the proposed rule likely would require similar skills as currently utilized by the industry (e.g., bulldozer operators).

However, in general, while some of the increased employment demand resulting from the rule may utilize existing mining labor skills (e.g., requirements that entail additional earthmoving), other employment demand may require different types of labor (e.g., biological monitoring, lab testing, paperwork).

The most significant requirements in the proposed rule that would result in the creation of these jobs are those associated with fill construction, material handling, reforestation, and the restoration of streams. Most compliance-related positions would be created in mining companies and the consulting firms and contractors working for the mining companies. The draft Regulatory Impact Analysis also predicts a relatively minimal impact on employment, with an average annual reduction in production-related employment of 260 fulltime equivalents, which would be mostly offset by an average annual increase in compliance-related employment of 250 fulltime equivalents.

2. OSM's analysis of the rule states that it is based on "hypothetical, model mines." If all other things were equal, including methodology, **which would generally be more accurate, an analysis based on hypothetical mines or an analysis based on actual, operating mines?**

Response: The draft Regulatory Impact Analysis for this proposed rule includes a comprehensive analysis to determine how the rule would impact the supply, demand, and price for coal. The analysis includes baseline data for coal production, use, and market prices. Because the actual prices received by firms from sales to utilities are typically considered trade secrets or are otherwise proprietary, sales and price data are publicly available only at the aggregate industry level. Aggregating data into mine groupings based upon common characteristics and geographic location does not impair the accuracy or the integrity of the analysis. Rather, credible economic studies routinely draw upon aggregate data precisely because it is deemed accurate.

There are approximately 1,000 coal mines across the United States. Coal mining operations vary from region to region, within a region, and within a mining type in a given region. In addition, the number of active mines is expected to change over time. Therefore, the precise location and operating characteristics of future mines cannot be forecast based on publicly available data. Instead, the draft Regulatory Impact Analysis relies on a "model mine" analysis developed by Morgan Worldwide, Inc., which provides results that are extrapolated to the universe of mines affected by the proposed rule. The "model mine" analysis uses data from existing mines and permits and topographic data from the U.S. Geological Survey, which is then modeled to represent each coal-producing region, and thus allow a comparison of the potential effects of the proposed rule across different regions of the county. These model mines were developed to be representative of the locations where coal mining occurs, the types of mining operations expected to be conducted under baseline conditions, the

production rates at various mines throughout the coal-producing regions of the United States, and how mining operations might change in response to the proposed rule. The model mine analysis is consistent with economic principles and was peer-reviewed by, John Grubb, Adjunct Professor, Department of Mining Engineering at the Colorado School of Mines, and Raja Ramani, Professor Emeritus, Department of Mining Engineering at Pennsylvania State University.

3. In 2009 OSM had an opportunity to perform Section 7 Consultation with the U.S. Fish and Wildlife Service with respect to the previously promulgated 2008 rule which was significantly more tailored in its approach. **Why did your agency not pursue this option and instead change course completely?**

Response: On December 12, 2008, OSMRE adopted the Stream Buffer Zone Rule. Shortly thereafter, the rule was challenged by environmental groups, in part on the basis of allegations that OSMRE failed to initiate consultation with the U.S. Fish and Wildlife Service as required by Section 7(a)(2) of the Endangered Species Act, 16 U.S.C. § 1536(a)(2), to evaluate possible effects of the 2008 rule on threatened and endangered species. The U.S. District Court for the District of Columbia subsequently vacated the rule on that basis. On June 11, 2009, the Department of the Interior, the U.S. Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (USACE) entered into a Memorandum of Understanding (MOU) that identified both short-term and long-term obligations for each agency. The MOU specifies that, at a minimum, the Department will consider “[r]evisions to key provisions of current SMCRA regulations, including the Stream Buffer Zone Rule and Approximate Original Contour (AOC) Requirements.” Section 102(a) of SMCRA states that one of the purposes of the Act is to “establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations,” and under Section 102(f) to “strike a balance between protection of the environment and agricultural productivity and the Nation’s need for coal as an essential source of energy.”

The Department’s review of existing OSMRE regulations under SMCRA at that time revealed, among other things, that coal mining operations continued to have adverse impacts on streams, fish, wildlife and related environmental resources, despite the enactment of SMCRA and the adoption of Federal regulations implementing the law more than 30 years before. Further, based upon all of the available information, OSMRE determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes and requirements of SMCRA.

4. This rulemaking began as a targeted effort to address a select set of issues with steep slope mining in certain Appalachian states. OSM acknowledged this in an interagency memo between the Department of the Interior, the Department of the Army, and the Environmental Protection Agency. In the preamble to the proposed rule, OSM completely abandons the pursuit of a targeted effort stating only that "Ultimately, we determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes of SMCRA as well as meeting the goals of the MOU." **How is a comprehensive, nationally applicable rule most appropriate for what OSM has long acknowledged is not a national issue?**

Response: The 2009 MOU states that, at a minimum, OSMRE will consider "[r]evisions to key provisions of current SMCRA regulations, including the Stream Buffer Zone Rule." As noted in the response to Question 3, after conducting extensive outreach and evaluating other information, OSMRE determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes and requirements of SMCRA, as well as meeting the objectives set forth in the MOU. Streams are ecologically important regardless of topography or where they are located in the country. Measures to protect the quality and quantity of streamflow, both from surface sources and groundwater discharges, are likewise important regardless of topography or location, as are measures designed to promote the use of native species and to ensure restoration of the capability of mine sites to support the uses that they were capable of supporting before mining.

5. OSM's annual evaluation reports for state programs nowhere reflect an inability on the part of states to adapt to changing needs in the industry. **Why are these evaluations completely ignored in the proposed rule?**

Response: OSMRE inspections and other oversight activities in primacy states, including the annual evaluation reports, focus on the success of state regulatory authorities in achieving compliance with the approved regulatory program for the state. Directive REG-8, which establishes policy and procedures for the evaluation of state regulatory programs, specifies that the offsite impacts identified in annual evaluation reports do not include impacts from mining and reclamation that are not regulated or controlled by the state program. In other words, the annual evaluation reports generally do not identify or discuss situations in which the existing regulations provide inadequate protection. While Directive REG-8 provides discretionary authority for evaluations of impacts that are not prohibited by the regulatory program, that authority may be exercised only if both OSMRE and the state agree to do so, and if they are not characterized as offsite impacts. Historically, that discretionary authority has not been exercised.

6. OSM now claims that this rule is needed to account for “new science” and its “experience” in the over three decades since enactment of the initial program. **This is directly at odds with the statements in OSM’s annual performance evaluations. Both statements cannot be true, which account reflects OSM’s view?**

Response: For the reasons stated in the response to Question 5, the findings in the annual evaluation reports do not address the need for the proposed rule because the proposed rule would address adverse impacts that historically have been allowed to occur under the existing regulations and which are not captured by the annual evaluation reports. For example, many state programs do not address elevated conductivity and increased selenium levels in streams as a result of mining and reclamation operations. The existing regulations do not specifically mention these parameters, in large part because the adverse impacts on aquatic life were not known when OSMRE adopted the existing hydrology regulations under SMCRA. Accordingly, we do not view the findings in the annual evaluation reports and the explanation of the purpose of the proposed rule in the rule’s preamble as contradictory.

7. Given the more than satisfactory review OSM has given states over the years for their ability to meet the needs of SMCRA, **why does OSM see the need to overlap and superseded the work of other agencies, such as the Environmental Protection Agency, already regulating water quality?**

Response: See the responses to Questions 5 and 6. Additionally, the proposed rule would not overlap or supersede the work of other agencies in regulating water quality. To the contrary, if adopted, it would harmonize implementation of both SMCRA and the Clean Water Act by encouraging coordination of permitting and enforcement activities and by relying upon existing Clean Water Act water quality standards, effluent limitations, and designated uses of surface waters to the extent possible. However, the Clean Water Act does not expressly require protection of the hydrologic balance and prevention of material damage to the hydrologic balance outside the permit area, both of which are requirements of SMCRA. Nothing in the Clean Water Act regulates groundwater and, with respect to surface waters, not all streams have designated uses. Clean Water Act water quality standards and effluent limitations do not exist for all parameters that could adversely impact the hydrologic balance. The proposed stream protection rule would fill these regulatory gaps. OSMRE has coordinated with both the EPA and the USACE in the development of both the proposed and final rules. In addition, both the EPA and the USACE will have another opportunity to review the final rule as part of the interagency review process conducted by the Office of Management and Budget. Finally, Section 501(a)(B) of SMCRA requires that OSMRE obtain the concurrence of the Administrator of the EPA with respect to all regulations that relate to air or water quality standards promulgated under the authority of the Clean Air Act or the Clean Water Act.

8. Even if OSM were mirroring the requirements of these laws exactly, I fail to see the need for two agencies requiring the exact same thing. If you intend to defer to the Clean Water Act authorities with respect to water quality provisions in the proposed rule, **why does the rule contain extensive new water monitoring and sampling requirements of your own? Couldn't OSM simply defer to state CWA authorities for this information?**

Response: As discussed in the response to Question 7, the Clean Water Act is not as comprehensive as SMCRA with respect to protection of the hydrologic balance, so deferral to state Clean Water Act authorities would not achieve the same results as the Stream Protection Rule. The Clean Water Act does not require establishment of a pre-mining baseline and it only requires monitoring of point-source discharges. SMCRA requires that permit applications include baseline information so that the potential impacts of mining can be assessed at the time of permit application and so that impacts that occur during mining and reclamation can be readily identified and evaluated. SMCRA also requires monitoring of both the quality and quantity of surface water and groundwater. Monitoring sites must be located both upgradient and downgradient of the mine site.

9. Department of the Interior Secretary Sally Jewell informed the House Appropriations Committee that OSM has spent "approximately \$9.5 million to develop the rule, including the evaluation of multiple options, review of current science and technology, and consultation with stakeholders." **Should this rule go final, it will likely end up in the courts. How much will the Department of the Interior spend to defend this massive rule?**

Response: At this time, we are unable to respond to this question because any response would be a speculative projection for a rule that has not yet been published in final form.

10. One of the purposes of SMCRA is to encourage the full utilization of our coal resources through underground mining technologies (sec. 101(k)). One study of the rule indicates that it will have an outsized impact on preventing the mining of underground coal resources.
- a. **Did OSM take a hard look on the impact its proposal would have on underground coal mines? Did you actually go out and determine the impact of the proposals against actual operating mines with different underground mining techniques to determine how the rule would affect future underground coal mining? Did you ask the states about the need for changing the rules for underground coal mining?**

- b. Did the Department consider the safety implications of the rule if it forces operators to move away from highly efficient and safe longwall mining technology?**

Response: The draft Regulatory Impact Analysis evaluates and discusses in detail the potential impact of the proposed rule on underground mining. According to that analysis, there would be no significant or disproportionate impact on underground mining.

In addition, the draft Regulatory Impact Analysis specifically analyzed impacts on longwall mining and determined that the proposed rule would still allow substantial coal reserves to be recovered using the longwall mining method. The analysis revealed that most regions would experience little or no impact on longwall mining. Therefore, there was no need to evaluate potential safety implications related to shifts in utilization of longwall technology. In addition, the overall analysis determined there would be no significant shifts between surface and underground mining technologies as a result of the proposed rule.

11. Based on your statement at the hearing on December 8, 2015, the proposed rule will be a “wash” for job losses since it will create compliance jobs. **Where will these jobs be located? Who will be paying the salaries for these new jobs? Can you guarantee that all coal miners who will lose their jobs because of this rule be given these newly created compliance jobs?**

Response: The draft Regulatory Impact Analysis predicts that adoption of the proposed rule would reduce production-related employment by 260 jobs on average nationwide each year, while creating an additional 250 jobs annually nationwide for activities needed to comply with the proposed rule. According to the draft Regulatory Impact Analysis, the Appalachian Basin and the Illinois Basin would account for 75% of the compliance jobs created as a result of the rule. Mining companies would pay the salaries for most of those jobs, either directly through direct hires, or indirectly through the contractors and consultants with which they do business. Many of the newly created jobs would require skills similar to those of some production-related jobs (e.g., heavy equipment operators and truck drivers). See also the response to Question 1.

12. How much will the rule cost in terms of:

- a. **Lost value in coal production?**
- b. **Increased operating costs at mines?**
- c. **Increased expenditures for states?**
- d. **Lost tax revenue for states?**

Response: The draft Regulatory Impact Analysis estimates that adoption of the proposed rule would result in less than a 0.2% reduction in coal production. It also estimates that the rule would result in an increase in coal prices of 0.2 to 1.2% (depending upon the region and type of coal) and a 0.1% increase in national electricity production costs for utilities. Total compliance costs would be approximately \$52 million per year for mine operators and \$855,000 per year for state regulatory authorities. Total industry compliance costs per year would average 0.1% or less of aggregate annual industry revenues. In Appalachia, the average compliance cost for surface mines is estimated to increase operational costs by \$0.40 per ton, while compliance costs for underground mines are expected to increase \$0.01 per ton. Surface mines in the Illinois Basin and Western Interior regions are expected to experience cost increases of \$0.60 per ton as a result of the proposed rule, while underground mines in those regions are expected to experience no increase in operational costs. Mining operations in other regions are not expected to experience an increase in costs as a result of the proposed rule. According to the draft Regulatory Impact Analysis, states would experience an estimated \$2.5 million decrease in annual revenue from severance taxes nationwide.

We are reviewing these estimates in response to comments that we received on the draft Regulatory Impact Analysis.

13. How much would the proposed rule increase current reporting burdens on mine operators in the increased number of hours and costs for the new analysis, information collection and reporting requirements?

Response: The preamble to the proposed rule includes a table displaying the estimated hour and non-wage cost burden of the proposed rule. See 80 FR 44584 (Jul. 27, 2015). According to the table, adoption of the proposed rule would impose an additional annual information collection and record-keeping burden on all mine operators combined of an estimated 90,800 hours at a total cost of \$4,813,000 per year. In addition, according to the table, adoption of the proposed rule would impose an additional annual information and record-keeping burden on all mine operators combined of an estimated \$14,476,000 for non-wage costs. Thus, the estimated total information collection and record-keeping burden on all mine operators combined to comply with the rule is \$19,289,000 per year. We are reviewing these estimates in response to comments that we received on the proposed rule.

14. Did the Department consider any measures to reduce these reporting burdens to offset the increase from the new burden?

Response: Section 3501 of the Paperwork Reduction Act, P.L. 104-13, states that one purpose of the law is to “minimize the paperwork burden for individuals, small businesses,

educational and nonprofit institutions, Federal contractors, State, local and tribal governments, and other persons resulting from the collection of information by or for the Federal Government.” To meet this requirement, we are reviewing all comments received on the proposed rule, including those that suggested ways to reduce the hour and cost burden on operators and regulatory authorities. We will consider those comments in the process of developing the final rule.

15. How much will the proposed rule increase the amount of time and costs for states to process permit applications?

Response: According to calculations for administrative costs submitted to the Office of Management and Budget in compliance with the Paperwork Reduction Act, which were made available to the public during the comment period, the proposed rule would impose an additional burden of an estimated 17,446 hours per year, for a total cost of \$855,000 per year for all state regulatory authorities combined.

We are reviewing these estimates in response to comments that we received on the proposed rule.

16. Although you claim that the rule is needed to reflect changes in science over the past 30 years based on your experience with state regulators, your agency’s own annual reviews of state regulatory performance directly refute this notion. OSM offers no other explanation in the over 3000 pages of material associated with this rulemaking for application of these duplicative and onerous requirements. Simply stated, OSM has failed to articulate a coherent purpose for this rulemaking.

a. Does the rule provide for exceptions when there is an inability to conduct monitoring programs due to differences in accessibility due to snow accumulation, temperature, soil conditions, or other regional differences?

Response: For the reasons stated in the response to Questions 5 and 6, the findings in the annual evaluation reports do not address the need for the proposed rule. Therefore, there is no contradiction between findings in the annual evaluation reports and the explanation of the purpose of the proposed rule in the preamble to that rule. See also responses to Questions 3, 4 and 7 above.

We are evaluating comments that we received recommending exceptions to monitoring requirements based on weather conditions and regional differences.

Questions from Representative Alex Mooney

- a. In your testimony before the Energy and Natural Resources Committee in October 2015, you stated that, “every reclamation practice contained in the proposed rule has been successfully implemented by *a* mine operator somewhere in the country.” **Why do you believe that a specific reclamation practice used by an operator in one region, working with a very specific set of geographic, hydrologic, and operational circumstances is appropriate to require nationwide for all operations across a vast diversity of regions?**

Response: The proposed rule is not premised on this assumption. The proposed rule would afford states and mine operators the flexibility necessary to implement its requirements in an effective manner under a wide range of conditions, including different regions of the country.

- b. In your testimony in the previous hearing you stated that “through this proposed rule we are adopting best practices developed over the past 30 years.” **If this rule is the adoption of best practices developed by state regulators and operators, why interfere with the flexibility of states and operators to do exactly that—develop best practices?**

Response: The proposed rule would not interfere with the ability of state regulatory authorities and mine operators to develop and implement new best practices. Instead, the proposed rule would elevate certain existing best practices with a proven track record to be part of the minimum environmental protection standards for all operations.

- c. Please list the mine operations and their locations where you assessed the technical and economic feasibility of the proposed rule’s requirements and the dates of these visits. Please list the mine operations and their locations where the proposed rule was implemented successfully.

Response: Attached is a list of some of the best practices for mining and reclamation implemented in certain states and regions.

- d. In February of this year state agencies wrote to OSM expressing serious concerns with the lack of engagement with them on development of the draft environmental impact statement noting that they would withdraw from the process if circumstances did not quickly improve. They did not and all but two states withdrew, and those that remain actively oppose the rule. **How do you explain the states withdrawing from the process as a result of OSM’s NEPA violations?**

- a. **How many chapters of the draft EIS were sent to the state cooperating agencies?
How many total chapters are there in the draft EIS?**

b. Why weren't all chapters of the draft EIS made available to the state cooperating agencies?

Response: As of November, 2010, OSMRE had sent Chapters 1, 2, 3 and 4 of the DEIS to all cooperating agencies. There are nine chapters, plus appendices, in the published DEIS. Chapters 1-4 are the heart of the DEIS. Those chapters include the statement of purpose and need, a description of the alternatives considered, a description of the affected environment, and an analysis of the environmental consequences of the alternatives. Chapters 5-9 had not yet been drafted at the time that OSMRE shared the first four chapters with the cooperating agencies. Chapter 5 is a discussion of consultations conducted; Chapter 6 is a list of preparers and contributors; Chapter 7 lists references cited in the EIS; Chapter 8 lists acronyms used in the EIS; and Chapter 9 is a glossary of terms.

The state regulatory authorities have had numerous opportunities to participate in the NEPA and rulemaking process. The rulemaking process began with an Advance Notice of Proposed Rulemaking, stakeholder outreach meetings, nine public scoping meetings and two public comment periods on the scoping for the draft environmental impact statement (DEIS). The scoping process generated over 20,500 comments, including input from the states. A number of state agencies, including state SMCRA regulatory authorities, participated as cooperating agencies in the early development of the DEIS for the stream protection rule. These states provided meaningful input and comments that were used to prepare the DEIS. In addition, the DEIS was made available for all cooperating agencies and the public to review and provide input on during the public comment period. The public comment period was extended to provide interested parties, including the states, more time to review and comment on the DEIS. OSMRE conducted six public hearings in Colorado, Kentucky, Missouri, Pennsylvania, Virginia and West Virginia during the public comment period. Ultimately, OSMRE received approximately 95,000 comments, including hundreds of pages of comments from state SMCRA regulatory authorities, on the DEIS and the proposed stream protection rule. Also, on October 8, 2015, OSMRE offered all former cooperating state agencies the opportunity to reengage as cooperating agencies in the development of the final EIS.

We have continued to engage in discussions with the state SMCRA regulatory authorities to better understand their comments regarding the proposed stream protection rule. In addition to meetings with the state SMCRA regulatory authorities in conjunction with Interstate Mining Compact Commission meetings, I and/or OSMRE officials either met with or held telephone or video conferences with Wyoming on November 20, 2015, and January 8, 2016; Ohio and Maryland on December 2, 2015; Oklahoma on December 3, 2015; Indiana and Pennsylvania on December 10, 2015; Virginia on December 11, 2015; Illinois on December 16, 2015; North Dakota, Utah and Montana on December 17, 2015; Alaska on January 14,

2016; and West Virginia on February 10, 2016. There were six additional opportunities to meet and collaborate during in April 2016. We are not in a position to speculate as to why certain states chose to withdraw as cooperating agencies.

Attachment

Examples of Best Practices related to the proposed Stream Protection Rule

OSMRE Appalachian Region

West Virginia

Underground Mine Post Mining Hydrologic Evaluation (2012): WVDEP modified a policy to clarify that underground mines had to have monitoring data that would reflect whether the mine would discharge problematic water (quantity or quality) after the mine is closed. This was implemented because it sometimes takes decades for the mine voids to fill and unpredicted discharges have occurred.

Storm Water Runoff Analysis (2006): WVDEP developed regulations requiring operators to model storm water flow on the mining area to demonstrate that mining would not increase peak flow discharge when compared to pre-mining conditions.

Approximate Original Contour Guidance (2004): The West Virginia Department of Environmental Protection, as a result of a litigation settlement, developed a guidance document that provides a consistent engineering method for determining how much material must be stacked back on the mountain and how much may be placed in valley fills. The method was developed with, and agreed to by, the environmental groups that were plaintiffs in the litigation and members of the coal industry:

Valley Fill Construction (2000): WVDEP developed regulations eliminating end-dumping of hollow fills and required "bottom-up" construction in lifts. (Note: WV allows up to 50' lifts)

Ohio

On the Oxford D-2266, Beagle Club permit located in Belmont County near St. Clairsville, Ohio, the operator voluntarily skipped mining approximately 2000' of headwater stream and riparian areas. Mining was completed in the spring of 2010. Despite the mining disturbance of several thousand feet of intermittent and perennial streams and several wetlands, with the headwaters intact, re-establishment of the riparian areas and geomorphically designed stream reconstruction, species health came back almost instantly. Also, tree survival rate in the reconstructed riparian was about 95 percent due to the use of alluvial type soils.

Oxford's Jockey Hollow West Mine, permit D-2255, located in Harrison County, near Moorefield, Ohio, demonstrates where the forestry reclamation approach was used to promote successful tree planting. The area was surface mined in the 1950s and 1960s. The former mining company mined the #9 coal seam and proceeded to take one contour cut along the #8 coal seam, leaving water-filled pits and exposed highwalls. Oxford's mining operation eliminated these AML features. The pre-mining land use was undeveloped and the post-mining land use is undeveloped with trees planted on 60 percent of the affected areas.

The State of Ohio owns the property which the Ohio Department of Natural Resources, Division of Wildlife manage as part of the Jockey Hollow Wildlife Area. Oxford worked with DMRM, OSMRE, and other partners including Ohio University, the Ohio Division of Wildlife, the Wild Turkey Federation, the American Chestnut Foundation, and several others to make this project a success. Oxford planted the area in two phases, with the first phase planted on the southern portion in the spring of 2008. In this area, they planted a mixture of hardwood trees, including 3,000 American chestnuts. The planted chestnuts included two types of hybrid trees (15/16ths and 7/8ths pure American) and a pure American chestnut variety. The northern half of the mine area was planted with another 2,000 American chestnuts in the spring of 2009. Approximately 5,000 chestnuts were planted at the Jockey Hollow site, making this site the largest planting of chestnut trees on mined lands in the eastern coal fields.

Tennessee

The State of Tennessee has adopted statutes and regulations designed to protect water quality. Tennessee Code Annotated, Section 69-3-108, was amended in 2009 to require that for activities related to the surface mining of coal or the surface effects of underground mining, with limited exceptions, no coal mining or disposal of spoil or coal waste materials may occur within 100 feet of the ordinary high water mark of a stream. Under the **Responsible Mining Act**, if the State determines that surface coal mining at a particular site will violate water quality standards because acid mine drainage from the site will not be amenable to treatment with proven technology both during the permit period or subsequent to completion of mining activities, the state NPDES permit must be denied. Thus, in effect, no valley fills, mining activities, or in stream ponds are permitted under the Clean Water Act in Tennessee.

Kentucky

Kentucky's Approximate Original Contour/Fill Minimization Protocol is also known as the "**Fill Placement Optimization Process**." These guidelines provide coal mining companies a set of consistent and reasonable engineering processes they can use when their proposed operations could impact the headwater streams in Kentucky. This engineering protocol was spearheaded by the Kentucky Department for Natural Resources (DNR) and included extensive state and federal collaboration with special representation from both Kentucky's environmental and coal industry to comply with the requirements of both SMCRA and the Clean Water Act.

An engineering team representing Kentucky DNR, U.S. Army Corps of Engineers, the Kentucky coal mining industry, a Kentucky environmental group and the U.S. Office of Surface Mining Reclamation and Enforcement developed the excess spoil fill design protocol. The protocol meets SMRCA's stability and AOC requirements and the alternatives analysis for minimizing stream impact required by the CWA. The protocol maximizes the amount of coal mine spoil returned to the coal mined area while minimizing the amount of coal mine spoil placed in excess disposal sites, i.e. "valley fills." In turn, this minimizes the impact to aquatic and terrestrial habitats in watersheds below the mining operation.

University of Kentucky Robinson Forest – Guy Cove Project

In 2008 construction began on a multi-faceted geomorphic reclamation project on this 100 acre, first order watershed, mined in the early 1990s. The project includes the Forestry Reclamation Approach, stream creation, and a passive treatment system to restore the form and function of a mined first order water-shed. This study, named the Guy Cove Project, is being conducted by the University of Kentucky in partnership with the Kentucky Department of Fish and Wildlife, the Kentucky Department for Natural Resources, OSMRE, and the Army Corp of Engineers. It utilizes a multi-strategy approach with three remediation procedures:

- valley-fill reconfiguration with the creation of a surface-flowing intermittent and four ephemeral streams;
- reforestation using the Forestry Reclamation Approach; and
- creation of a bioreactor-wetland treatment system.

The objectives of this Restoration Project are to:

- Recreate headwater stream functions in an economically feasible manner (perennial 790 feet, intermittent 2,495 feet, and ephemeral 1,555 feet);
- Attenuate runoff events to reduce peak discharges and increase base flows;
- Promote surface expression of water and enhance wetland treatment efficiency to improve water quality;
- Improve habitat through the development of vernal ponds and a hardwood forest;
- Establish an outdoor classroom for demonstrating design principles, construction techniques, and measurement of system performance; and
- Educate a myriad of stakeholders including consulting and mining engineers, land reclamation design professionals, the regulatory community, environmental advocacy groups, and students.

WEEP BERMS

Middle Fork Development Corporation
263 Acre Surface Mine in Magoffin County
Approved mining methods: Area and Remining.

Post mining land use is forestland using Forestry Reclamation Approach
Experimental practice replaces the natural berm with a stable engineered earthen berm.

The constructed earthen berm will collect runoff and allow passive infiltration and seepage that diffuses runoff or "weeps" into the natural forested area. Weep berms have been designed to better mimic the pre-mining hydrology. Middle Fork used surface mine permit 877-0191 as a demonstration mine to prove that a surface mine can be designed and mined to minimize impacts from specific conductivity and metals from entering the waters of the United States. The mining and reclamation plans, put forward by Dr. Richard Warner with the University of Kentucky and Mr. Greg Higgins with Middle Fork, included the following: 1) isolation of spoil that would normally increase specific conductivity; 2) reduction of spoil exposure to weather by mining and reclamation in a very contemporaneous manner; 3) use of the Forest Reclamation Approach (FRA) to reduce surface runoff; and 4) installation of check dams and weep berms to remove the sediment and create a diffuse discharge that replicates the forest hydrology and environment. The new mining techniques were compared to existing mining methods to illustrate the benefits that included elimination of excess spoil disposal in valley fills, elimination of instream or on bench sediment ponds because of the diffuse flow, elimination of stream loss because fills and instream ponds were not necessary to control and treat runoff, and a reduction in runoff because of the FRA approach that minimizes compaction and promotes loose dumping of mine spoil to promote infiltration.

Under the Surface Mining Control and Reclamation Act and the implementing Federal regulations (30 CFR §785.13), a variance from environmental protection performance standards for experimental or research purposes, or to allow an alternative postmining land use, may be undertaken if they are approved by the regulatory authority (Kentucky Department of Natural Resources) and the OSMRE. For the weep berms to be installed on this project, a major revision addressed the experimental practice and the request to waive the Federal and State requirement to maintain a natural berm. OSMRE approved the Experimental Practice for Middle Fork permit number 877-0191 in the spring of 2013.

OSMRE Mid-Continent Region

Illinois

During the 1980's, the Illinois Department of Mines and Minerals (state regulatory authority) approved under SMCRA the mining and restoration of three of the largest perennial stream relocation projects as a result of surface coal mining. Several Illinois surface mines, the state regulatory authority, the Illinois Department of Conservation and the Southern Illinois University of Carbondale's Cooperative Wildlife Research Laboratory (CWRL) developed a plan that accounted for the restoration of both hydrologic and biological function as part of the reclamation of the plans that allowed for mining through Bonnie, Galum and Pipestone Creeks in Perry County, Illinois. Currently restored to their same locations these streams were subject to reassessment as part of an Applied Science project funded by OSMRE between the years 2011 and 2013. This study, conducted cooperatively by the U.S. Geological Survey and the Southern Illinois University - Carbondale's CWRL, examined the streams water quality, fish and macroinvertebrates, stream stability, hydraulics, riparian wildlife habitat and wetland soil quality. These were compared to nearby unmined Little Galum Creek.

Overall, the study concluded that based on most of the stream water quality, wetland soil quality, hydraulic and stream stability, and wildlife habitat parameters measured, the streams and riparian systems have been restored to a level comparable to that of an unmined area. The report did note that there were a few parameters that will take longer to recover such as canopy cover and soil quality in deeper horizons and that certain sections of the restored streams channels show instability having not yet established equilibrium. In summary the restorations provided wide accessible floodplains with wooded riparian corridors and sinuous streams were a large improvement from the straight-line diversion channels that were common historically. While riparian processes were relatively quickly restored and water quality was maintained at near pre-mining conditions, in-stream processes and form will take longer to recover.

Indiana

As a demonstration of BMP's, the Indiana Division of Reclamation, took extraordinary precautions to protect the hydrologic balance in relation to the Hymera Mine located in close proximity to the town of Hymera in Sullivan County, Indiana. The Indiana Division of Reclamation placed numerous conditions on the operations which focused on maintaining water levels in existing abandoned underground mine workings in an effort to prevent subsidence and adverse impacts on nearby lakes and streams. Specifically, the conditions aimed to prevent dewatering of the old works which could increase the likelihood of further subsidence and ensure protection of the hydrologic balance and prevention of offsite impacts. Safeguards that were placed in the permit required the operator to: set trigger elevations on the water levels in the underground mine pools and monitor these levels on a daily basis; fully delineate the old mine works in the vicinity; size coal barriers sufficiently to minimize seepage and prevent drainage from the existing mine pools; and have a plan in place to immediately investigate any inflow into the mine pit and backfill if found to be from the mine works.

OSMRE Western Region

Montana, Wyoming, New Mexico

Surface mining and reclamation activities in Western Region states typically occur in semi-dry areas; such as, the Powder River Basin in Montana and Wyoming, and the San Juan Basin in New Mexico.

Streams in these regions can quickly go from zero flow to flood events after storms. Flood events can impact mining and reclamation operations as well as damage property and the environment.

Mine operators in these areas recognize the importance of understanding the hydrologic characteristics of streams. For that reason, some operators typically exceed SMCRA requirements for the collection of baseline hydrologic monitoring data. Currently, our regulations require baseline hydrologic monitoring data (quality and quantity) on surface water and groundwater sufficient to demonstrate seasonal variations and water usages. Some regulatory agencies have interpreted these requirements as meaning conducting only two baseline sampling events, one during a low-flow event and another during a high-flow event. We believe that an operator needs more than two sampling events to adequately characterize baseline hydrologic

conditions (quality and quantity) in the permit and adjacent areas. Hence, in the proposed SPR, we require the operator collect 12-monthly samples for surface water and groundwater monitoring sites deemed necessary to characterize baseline hydrologic conditions (quality and quantity) in the permit and adjacent areas.

Arizona

At the Kayenta Mine Complex in northern Arizona, Peabody Western Coal Company implements surface water monitoring stations with telemetry to remotely collect surface flow data to capture the complete hydrologic event. The hydrologic information is not only valuable for mine plan operations, but enables the regulatory authority to make more informed decisions on the Cumulative Hydrologic Impact Assessment prepared by the regulatory authority.

Managing the highly variable flow events in the Western Region is also accomplished through adherence to Approximate Original Contour (AOC) requirements using landforming reclamation principles. Restoring to the pre-mining drainage pattern manages the volume of water during the precipitation event, and erosive forces are dissipated by reclaiming mined through streams with sinuous channels. Stream reclamation using landforming principles occurs at several mines in the Western Region. The SPR proposes that the post-mining drainage pattern of all streams be similar to the pre-mining drainage pattern to ensure stability, minimize downcutting, and enhance fish and wildlife habitat. Western Region operations where landforming reclamation principles are applied include the *New Mexico San Juan Mine*, and *McKinley Mine and Navajo Mine on the Navajo Reservation* to name a few.

The Western Region coal mining and reclamation operations are large, and may influence multi-use aquifer systems. For example, coal bed methane development is comingled with coal mining operations in the Wyoming Powder River Basin. For that reason, a robust hydrologic monitoring program is employed to enable the regulatory authority to discern the hydrologic impacts associated with coal mining. Additionally, mine operations in the Powder River Basin independently formed an organization to collectively monitor and evaluate regional hydrologic impacts. The SPR proposes increased baseline groundwater monitoring, and monitoring during mining and reclamation to allow the detection of hydrologic impacts prior to rising to a level of material damage. Other examples of multi-use regional aquifers in proximity to coal mining operations include the Black Mesa Navajo aquifer in northern Arizona, and the Star Point Sandstone aquifer in central Utah.

Award Winners related to the proposed Stream Protection Rule

2007 Active Mine Reclamation Award Winners

Foundation Coal West, INC., Belle Ayr Mine, Caballo Creek Channel Reclamation, Wyoming

Noting the importance of water in this semi-arid area, reclamation began before the Surface Mining Control and Reclamation Act (SMCRA) was signed in 1977 and has resulted in 3.3 miles of reclaimed stream. It has been built to replicate the pools and runs of a typical prairie stream system enabling fish and wildlife to survive in all but the driest conditions. As the stream restoration continues furthering the perennial designation, reconstruction of a small recreational lake is planned.



United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, DC 20240

JUN 20 2016

The Hon. Cynthia Lummis
Chairman
Committee on Oversight and Government Reform
Subcommittee on the Interior
United States House of Representatives
Washington, D.C. 20515

Dear Madam Chairman:

Enclosed are responses prepared by the Department to the questions for the record submitted following the December 8, 2015, joint hearing of the Subcommittees on the Interior and on Healthcare, Benefits and Administrative Rules entitled "*Examining the Stream Protection Rule.*"

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and
Legislative Affairs

Enclosure

cc: The Honorable Brenda Lawrence, Ranking Member
Committee on Oversight and Government Reform,
Subcommittee on the Interior

Joint Subcommittee Hearing before the
Committee on Oversight and Government Reform
Subcommittee on the Interior and the
Subcommittee on Healthcare, Benefits, and Administrative Rules
U.S. House of Representatives
Department of the Interior
December 8, 2015
"Examining the Stream Protection Rule"

Questions from Chairman Cynthia Lummis

1. OSM's Regulatory Impact Analysis for the proposed rule states that the rule would result in the loss of coal mining jobs but that many of these would be offset with jobs created just to keep up with compliance with the rule. **Assistant Secretary, in your view, how are temporary compliance jobs designed to oversee the death of an industry a suitable replacement for high paying long-term coal jobs?**

Response: We appreciate the opportunity to respond to this important question and provide further clarity about the proposed stream protection rule. The decline in coal usage and production during the past few years is largely a function of the increased availability of low-cost natural gas and lower coal demand resulting from the retirement of aging coal-burning generators. Many newer power plants that have the capability of burning either coal or gas generally have switched to gas. Competition among power suppliers for the wholesale electricity market also has resulted in the retirement of some older, less-efficient coal-fired power plants for which upgrades and retrofits to meet air quality requirements are not cost-effective. In addition, the strong dollar, which is influenced by low oil prices and reduced dependency on foreign oil, has weakened the competitiveness of U.S.-produced coal in the export market. Coal exports declined 23% in 2015, falling for the third consecutive year. Cumulatively, these factors have resulted in reduced demand for coal, thereby depressing coal prices.

Under the proposed rule, certain employment opportunities would be created in response to the proposed changes in the regulatory environment. According to the draft Regulatory Impact Analysis, compliance-related jobs may include performing inspections, conducting biological assessments, and other tasks that require employment of highly trained professionals (e.g., engineers and biologists) as part of compliance with some elements of the rule. Other increased work requirements associated with elements of the proposed rule likely would require similar skills as currently utilized by the industry (e.g., bulldozer operators).

However, in general, while some of the increased employment demand resulting from the rule may utilize existing mining labor skills (e.g., requirements that entail additional earthmoving), other employment demand may require different types of labor (e.g., biological monitoring, lab testing, paperwork).

The most significant requirements in the proposed rule that would result in the creation of these jobs are those associated with fill construction, material handling, reforestation, and the restoration of streams. Most compliance-related positions would be created in mining companies and the consulting firms and contractors working for the mining companies. The draft Regulatory Impact Analysis also predicts a relatively minimal impact on employment, with an average annual reduction in production-related employment of 260 fulltime equivalents, which would be mostly offset by an average annual increase in compliance-related employment of 250 fulltime equivalents.

2. OSM's analysis of the rule states that it is based on "hypothetical, model mines." If all other things were equal, including methodology, **which would generally be more accurate, an analysis based on hypothetical mines or an analysis based on actual, operating mines?**

Response: The draft Regulatory Impact Analysis for this proposed rule includes a comprehensive analysis to determine how the rule would impact the supply, demand, and price for coal. The analysis includes baseline data for coal production, use, and market prices. Because the actual prices received by firms from sales to utilities are typically considered trade secrets or are otherwise proprietary, sales and price data are publicly available only at the aggregate industry level. Aggregating data into mine groupings based upon common characteristics and geographic location does not impair the accuracy or the integrity of the analysis. Rather, credible economic studies routinely draw upon aggregate data precisely because it is deemed accurate.

There are approximately 1,000 coal mines across the United States. Coal mining operations vary from region to region, within a region, and within a mining type in a given region. In addition, the number of active mines is expected to change over time. Therefore, the precise location and operating characteristics of future mines cannot be forecast based on publicly available data. Instead, the draft Regulatory Impact Analysis relies on a "model mine" analysis developed by Morgan Worldwide, Inc., which provides results that are extrapolated to the universe of mines affected by the proposed rule. The "model mine" analysis uses data from existing mines and permits and topographic data from the U.S. Geological Survey, which is then modeled to represent each coal-producing region, and thus allow a comparison of the potential effects of the proposed rule across different regions of the county. These model mines were developed to be representative of the locations where coal mining occurs, the types of mining operations expected to be conducted under baseline conditions, the

production rates at various mines throughout the coal-producing regions of the United States, and how mining operations might change in response to the proposed rule. The model mine analysis is consistent with economic principles and was peer-reviewed by, John Grubb, Adjunct Professor, Department of Mining Engineering at the Colorado School of Mines, and Raja Ramani, Professor Emeritus, Department of Mining Engineering at Pennsylvania State University.

3. In 2009 OSM had an opportunity to perform Section 7 Consultation with the U.S. Fish and Wildlife Service with respect to the previously promulgated 2008 rule which was significantly more tailored in its approach. **Why did your agency not pursue this option and instead change course completely?**

Response: On December 12, 2008, OSMRE adopted the Stream Buffer Zone Rule. Shortly thereafter, the rule was challenged by environmental groups, in part on the basis of allegations that OSMRE failed to initiate consultation with the U.S. Fish and Wildlife Service as required by Section 7(a)(2) of the Endangered Species Act, 16 U.S.C. § 1536(a)(2), to evaluate possible effects of the 2008 rule on threatened and endangered species. The U.S. District Court for the District of Columbia subsequently vacated the rule on that basis. On June 11, 2009, the Department of the Interior, the U.S. Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (USACE) entered into a Memorandum of Understanding (MOU) that identified both short-term and long-term obligations for each agency. The MOU specifies that, at a minimum, the Department will consider “[r]evisions to key provisions of current SMCRA regulations, including the Stream Buffer Zone Rule and Approximate Original Contour (AOC) Requirements.” Section 102(a) of SMCRA states that one of the purposes of the Act is to “establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations,” and under Section 102(f) to “strike a balance between protection of the environment and agricultural productivity and the Nation’s need for coal as an essential source of energy.”

The Department’s review of existing OSMRE regulations under SMCRA at that time revealed, among other things, that coal mining operations continued to have adverse impacts on streams, fish, wildlife and related environmental resources, despite the enactment of SMCRA and the adoption of Federal regulations implementing the law more than 30 years before. Further, based upon all of the available information, OSMRE determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes and requirements of SMCRA.

4. This rulemaking began as a targeted effort to address a select set of issues with steep slope mining in certain Appalachian states. OSM acknowledged this in an interagency memo between the Department of the Interior, the Department of the Army, and the Environmental Protection Agency. In the preamble to the proposed rule, OSM completely abandons the pursuit of a targeted effort stating only that “Ultimately, we determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes of SMCRA as well as meeting the goals of the MOU.” **How is a comprehensive, nationally applicable rule most appropriate for what OSM has long acknowledged is not a national issue?**

Response: The 2009 MOU states that, at a minimum, OSMRE will consider “[r]evisions to key provisions of current SMCRA regulations, including the Stream Buffer Zone Rule.” As noted in the response to Question 3, after conducting extensive outreach and evaluating other information, OSMRE determined that development of a comprehensive, nationally applicable stream protection rule would be the most appropriate and effective method of achieving the purposes and requirements of SMCRA, as well as meeting the objectives set forth in the MOU. Streams are ecologically important regardless of topography or where they are located in the country. Measures to protect the quality and quantity of streamflow, both from surface sources and groundwater discharges, are likewise important regardless of topography or location, as are measures designed to promote the use of native species and to ensure restoration of the capability of mine sites to support the uses that they were capable of supporting before mining.

5. OSM’s annual evaluation reports for state programs nowhere reflect an inability on the part of states to adapt to changing needs in the industry. **Why are these evaluations completely ignored in the proposed rule?**

Response: OSMRE inspections and other oversight activities in primacy states, including the annual evaluation reports, focus on the success of state regulatory authorities in achieving compliance with the approved regulatory program for the state. Directive REG-8, which establishes policy and procedures for the evaluation of state regulatory programs, specifies that the offsite impacts identified in annual evaluation reports do not include impacts from mining and reclamation that are not regulated or controlled by the state program. In other words, the annual evaluation reports generally do not identify or discuss situations in which the existing regulations provide inadequate protection. While Directive REG-8 provides discretionary authority for evaluations of impacts that are not prohibited by the regulatory program, that authority may be exercised only if both OSMRE and the state agree to do so, and if they are not characterized as offsite impacts. Historically, that discretionary authority has not been exercised.

6. OSM now claims that this rule is needed to account for “new science” and its “experience” in the over three decades since enactment of the initial program. **This is directly at odds with the statements in OSM’s annual performance evaluations. Both statements cannot be true, which account reflects OSM’s view?**

Response: For the reasons stated in the response to Question 5, the findings in the annual evaluation reports do not address the need for the proposed rule because the proposed rule would address adverse impacts that historically have been allowed to occur under the existing regulations and which are not captured by the annual evaluation reports. For example, many state programs do not address elevated conductivity and increased selenium levels in streams as a result of mining and reclamation operations. The existing regulations do not specifically mention these parameters, in large part because the adverse impacts on aquatic life were not known when OSMRE adopted the existing hydrology regulations under SMCRA. Accordingly, we do not view the findings in the annual evaluation reports and the explanation of the purpose of the proposed rule in the rule’s preamble as contradictory.

7. Given the more than satisfactory review OSM has given states over the years for their ability to meet the needs of SMCRA, **why does OSM see the need to overlap and superseded the work of other agencies, such as the Environmental Protection Agency, already regulating water quality?**

Response: See the responses to Questions 5 and 6. Additionally, the proposed rule would not overlap or supersede the work of other agencies in regulating water quality. To the contrary, if adopted, it would harmonize implementation of both SMCRA and the Clean Water Act by encouraging coordination of permitting and enforcement activities and by relying upon existing Clean Water Act water quality standards, effluent limitations, and designated uses of surface waters to the extent possible. However, the Clean Water Act does not expressly require protection of the hydrologic balance and prevention of material damage to the hydrologic balance outside the permit area, both of which are requirements of SMCRA. Nothing in the Clean Water Act regulates groundwater and, with respect to surface waters, not all streams have designated uses. Clean Water Act water quality standards and effluent limitations do not exist for all parameters that could adversely impact the hydrologic balance. The proposed stream protection rule would fill these regulatory gaps. OSMRE has coordinated with both the EPA and the USACE in the development of both the proposed and final rules. In addition, both the EPA and the USACE will have another opportunity to review the final rule as part of the interagency review process conducted by the Office of Management and Budget. Finally, Section 501(a)(B) of SMCRA requires that OSMRE obtain the concurrence of the Administrator of the EPA with respect to all regulations that relate to air or water quality standards promulgated under the authority of the Clean Air Act or the Clean Water Act.

8. Even if OSM were mirroring the requirements of these laws exactly, I fail to see the need for two agencies requiring the exact same thing. If you intend to defer to the Clean Water Act authorities with respect to water quality provisions in the proposed rule, **why does the rule contain extensive new water monitoring and sampling requirements of your own? Couldn't OSM simply defer to state CWA authorities for this information?**

Response: As discussed in the response to Question 7, the Clean Water Act is not as comprehensive as SMCRA with respect to protection of the hydrologic balance, so deferral to state Clean Water Act authorities would not achieve the same results as the Stream Protection Rule. The Clean Water Act does not require establishment of a pre-mining baseline and it only requires monitoring of point-source discharges. SMCRA requires that permit applications include baseline information so that the potential impacts of mining can be assessed at the time of permit application and so that impacts that occur during mining and reclamation can be readily identified and evaluated. SMCRA also requires monitoring of both the quality and quantity of surface water and groundwater. Monitoring sites must be located both upgradient and downgradient of the mine site.

9. Department of the Interior Secretary Sally Jewell informed the House Appropriations Committee that OSM has spent “approximately \$9.5 million to develop the rule, including the evaluation of multiple options, review of current science and technology, and consultation with stakeholders.” **Should this rule go final, it will likely end up in the courts. How much will the Department of the Interior spend to defend this massive rule?**

Response: At this time, we are unable to respond to this question because any response would be a speculative projection for a rule that has not yet been published in final form.

10. One of the purposes of SMCRA is to encourage the full utilization of our coal resources through underground mining technologies (sec. 101(k)). One study of the rule indicates that it will have an outsized impact on preventing the mining of underground coal resources.
- a. **Did OSM take a hard look on the impact its proposal would have on underground coal mines? Did you actually go out and determine the impact of the proposals against actual operating mines with different underground mining techniques to determine how the rule would affect future underground coal mining? Did you ask the states about the need for changing the rules for underground coal mining?**

- b. Did the Department consider the safety implications of the rule if it forces operators to move away from highly efficient and safe longwall mining technology?**

Response: The draft Regulatory Impact Analysis evaluates and discusses in detail the potential impact of the proposed rule on underground mining. According to that analysis, there would be no significant or disproportionate impact on underground mining.

In addition, the draft Regulatory Impact Analysis specifically analyzed impacts on longwall mining and determined that the proposed rule would still allow substantial coal reserves to be recovered using the longwall mining method. The analysis revealed that most regions would experience little or no impact on longwall mining. Therefore, there was no need to evaluate potential safety implications related to shifts in utilization of longwall technology. In addition, the overall analysis determined there would be no significant shifts between surface and underground mining technologies as a result of the proposed rule.

11. Based on your statement at the hearing on December 8, 2015, the proposed rule will be a “wash” for job losses since it will create compliance jobs. **Where will these jobs be located? Who will be paying the salaries for these new jobs? Can you guarantee that all coal miners who will lose their jobs because of this rule be given these newly created compliance jobs?**

Response: The draft Regulatory Impact Analysis predicts that adoption of the proposed rule would reduce production-related employment by 260 jobs on average nationwide each year, while creating an additional 250 jobs annually nationwide for activities needed to comply with the proposed rule. According to the draft Regulatory Impact Analysis, the Appalachian Basin and the Illinois Basin would account for 75% of the compliance jobs created as a result of the rule. Mining companies would pay the salaries for most of those jobs, either directly through direct hires, or indirectly through the contractors and consultants with which they do business. Many of the newly created jobs would require skills similar to those of some production-related jobs (e.g., heavy equipment operators and truck drivers). See also the response to Question 1.

12. How much will the rule cost in terms of:

- a. **Lost value in coal production?**
- b. **Increased operating costs at mines?**
- c. **Increased expenditures for states?**
- d. **Lost tax revenue for states?**

Response: The draft Regulatory Impact Analysis estimates that adoption of the proposed rule would result in less than a 0.2% reduction in coal production. It also estimates that the rule would result in an increase in coal prices of 0.2 to 1.2% (depending upon the region and type of coal) and a 0.1% increase in national electricity production costs for utilities. Total compliance costs would be approximately \$52 million per year for mine operators and \$855,000 per year for state regulatory authorities. Total industry compliance costs per year would average 0.1% or less of aggregate annual industry revenues. In Appalachia, the average compliance cost for surface mines is estimated to increase operational costs by \$0.40 per ton, while compliance costs for underground mines are expected to increase \$0.01 per ton. Surface mines in the Illinois Basin and Western Interior regions are expected to experience cost increases of \$0.60 per ton as a result of the proposed rule, while underground mines in those regions are expected to experience no increase in operational costs. Mining operations in other regions are not expected to experience an increase in costs as a result of the proposed rule. According to the draft Regulatory Impact Analysis, states would experience an estimated \$2.5 million decrease in annual revenue from severance taxes nationwide.

We are reviewing these estimates in response to comments that we received on the draft Regulatory Impact Analysis.

13. How much would the proposed rule increase current reporting burdens on mine operators in the increased number of hours and costs for the new analysis, information collection and reporting requirements?

Response: The preamble to the proposed rule includes a table displaying the estimated hour and non-wage cost burden of the proposed rule. See 80 FR 44584 (Jul. 27, 2015). According to the table, adoption of the proposed rule would impose an additional annual information collection and record-keeping burden on all mine operators combined of an estimated 90,800 hours at a total cost of \$4,813,000 per year. In addition, according to the table, adoption of the proposed rule would impose an additional annual information and record-keeping burden on all mine operators combined of an estimated \$14,476,000 for non-wage costs. Thus, the estimated total information collection and record-keeping burden on all mine operators combined to comply with the rule is \$19,289,000 per year. We are reviewing these estimates in response to comments that we received on the proposed rule.

14. Did the Department consider any measures to reduce these reporting burdens to offset the increase from the new burden?

Response: Section 3501 of the Paperwork Reduction Act, P.L. 104-13, states that one purpose of the law is to “minimize the paperwork burden for individuals, small businesses,

educational and nonprofit institutions, Federal contractors, State, local and tribal governments, and other persons resulting from the collection of information by or for the Federal Government.” To meet this requirement, we are reviewing all comments received on the proposed rule, including those that suggested ways to reduce the hour and cost burden on operators and regulatory authorities. We will consider those comments in the process of developing the final rule.

15. How much will the proposed rule increase the amount of time and costs for states to process permit applications?

Response: According to calculations for administrative costs submitted to the Office of Management and Budget in compliance with the Paperwork Reduction Act, which were made available to the public during the comment period, the proposed rule would impose an additional burden of an estimated 17,446 hours per year, for a total cost of \$855,000 per year for all state regulatory authorities combined.

We are reviewing these estimates in response to comments that we received on the proposed rule.

16. Although you claim that the rule is needed to reflect changes in science over the past 30 years based on your experience with state regulators, your agency’s own annual reviews of state regulatory performance directly refute this notion. OSM offers no other explanation in the over 3000 pages of material associated with this rulemaking for application of these duplicative and onerous requirements. Simply stated, OSM has failed to articulate a coherent purpose for this rulemaking.

a. Does the rule provide for exceptions when there is an inability to conduct monitoring programs due to differences in accessibility due to snow accumulation, temperature, soil conditions, or other regional differences?

Response: For the reasons stated in the response to Questions 5 and 6, the findings in the annual evaluation reports do not address the need for the proposed rule. Therefore, there is no contradiction between findings in the annual evaluation reports and the explanation of the purpose of the proposed rule in the preamble to that rule. See also responses to Questions 3, 4 and 7 above.

We are evaluating comments that we received recommending exceptions to monitoring requirements based on weather conditions and regional differences.

Questions from Representative Alex Mooney

- a. In your testimony before the Energy and Natural Resources Committee in October 2015, you stated that, “every reclamation practice contained in the proposed rule has been successfully implemented by *a* mine operator somewhere in the country.” **Why do you believe that a specific reclamation practice used by an operator in one region, working with a very specific set of geographic, hydrologic, and operational circumstances is appropriate to require nationwide for all operations across a vast diversity of regions?**

Response: The proposed rule is not premised on this assumption. The proposed rule would afford states and mine operators the flexibility necessary to implement its requirements in an effective manner under a wide range of conditions, including different regions of the country.

- b. In your testimony in the previous hearing you stated that “through this proposed rule we are adopting best practices developed over the past 30 years.” **If this rule is the adoption of best practices developed by state regulators and operators, why interfere with the flexibility of states and operators to do exactly that—develop best practices?**

Response: The proposed rule would not interfere with the ability of state regulatory authorities and mine operators to develop and implement new best practices. Instead, the proposed rule would elevate certain existing best practices with a proven track record to be part of the minimum environmental protection standards for all operations.

- c. Please list the mine operations and their locations where you assessed the technical and economic feasibility of the proposed rule’s requirements and the dates of these visits. Please list the mine operations and their locations where the proposed rule was implemented successfully.

Response: Attached is a list of some of the best practices for mining and reclamation implemented in certain states and regions.

- d. In February of this year state agencies wrote to OSM expressing serious concerns with the lack of engagement with them on development of the draft environmental impact statement noting that they would withdraw from the process if circumstances did not quickly improve. They did not and all but two states withdrew, and those that remain actively oppose the rule. **How do you explain the states withdrawing from the process as a result of OSM’s NEPA violations?**

- a. **How many chapters of the draft EIS were sent to the state cooperating agencies?
How many total chapters are there in the draft EIS?**

b. Why weren't all chapters of the draft EIS made available to the state cooperating agencies?

Response: As of November, 2010, OSMRE had sent Chapters 1, 2, 3 and 4 of the DEIS to all cooperating agencies. There are nine chapters, plus appendices, in the published DEIS. Chapters 1-4 are the heart of the DEIS. Those chapters include the statement of purpose and need, a description of the alternatives considered, a description of the affected environment, and an analysis of the environmental consequences of the alternatives. Chapters 5-9 had not yet been drafted at the time that OSMRE shared the first four chapters with the cooperating agencies. Chapter 5 is a discussion of consultations conducted; Chapter 6 is a list of preparers and contributors; Chapter 7 lists references cited in the EIS; Chapter 8 lists acronyms used in the EIS; and Chapter 9 is a glossary of terms.

The state regulatory authorities have had numerous opportunities to participate in the NEPA and rulemaking process. The rulemaking process began with an Advance Notice of Proposed Rulemaking, stakeholder outreach meetings, nine public scoping meetings and two public comment periods on the scoping for the draft environmental impact statement (DEIS). The scoping process generated over 20,500 comments, including input from the states. A number of state agencies, including state SMCRA regulatory authorities, participated as cooperating agencies in the early development of the DEIS for the stream protection rule. These states provided meaningful input and comments that were used to prepare the DEIS. In addition, the DEIS was made available for all cooperating agencies and the public to review and provide input on during the public comment period. The public comment period was extended to provide interested parties, including the states, more time to review and comment on the DEIS. OSMRE conducted six public hearings in Colorado, Kentucky, Missouri, Pennsylvania, Virginia and West Virginia during the public comment period. Ultimately, OSMRE received approximately 95,000 comments, including hundreds of pages of comments from state SMCRA regulatory authorities, on the DEIS and the proposed stream protection rule. Also, on October 8, 2015, OSMRE offered all former cooperating state agencies the opportunity to reengage as cooperating agencies in the development of the final EIS.

We have continued to engage in discussions with the state SMCRA regulatory authorities to better understand their comments regarding the proposed stream protection rule. In addition to meetings with the state SMCRA regulatory authorities in conjunction with Interstate Mining Compact Commission meetings, I and/or OSMRE officials either met with or held telephone or video conferences with Wyoming on November 20, 2015, and January 8, 2016; Ohio and Maryland on December 2, 2015; Oklahoma on December 3, 2015; Indiana and Pennsylvania on December 10, 2015; Virginia on December 11, 2015; Illinois on December 16, 2015; North Dakota, Utah and Montana on December 17, 2015; Alaska on January 14,

2016; and West Virginia on February 10, 2016. There were six additional opportunities to meet and collaborate during in April 2016. We are not in a position to speculate as to why certain states chose to withdraw as cooperating agencies.

Attachment

Examples of Best Practices related to the proposed Stream Protection Rule

OSMRE Appalachian Region

West Virginia

Underground Mine Post Mining Hydrologic Evaluation (2012): WVDEP modified a policy to clarify that underground mines had to have monitoring data that would reflect whether the mine would discharge problematic water (quantity or quality) after the mine is closed. This was implemented because it sometimes takes decades for the mine voids to fill and unpredicted discharges have occurred.

Storm Water Runoff Analysis (2006): WVDEP developed regulations requiring operators to model storm water flow on the mining area to demonstrate that mining would not increase peak flow discharge when compared to pre-mining conditions.

Approximate Original Contour Guidance (2004): The West Virginia Department of Environmental Protection, as a result of a litigation settlement, developed a guidance document that provides a consistent engineering method for determining how much material must be stacked back on the mountain and how much may be placed in valley fills. The method was developed with, and agreed to by, the environmental groups that were plaintiffs in the litigation and members of the coal industry:

Valley Fill Construction (2000): WVDEP developed regulations eliminating end-dumping of hollow fills and required "bottom-up" construction in lifts. (Note: WV allows up to 50' lifts)

Ohio

On the Oxford D-2266, Beagle Club permit located in Belmont County near St. Clairsville, Ohio, the operator voluntarily skipped mining approximately 2000' of headwater stream and riparian areas. Mining was completed in the spring of 2010. Despite the mining disturbance of several thousand feet of intermittent and perennial streams and several wetlands, with the headwaters intact, re-establishment of the riparian areas and geomorphically designed stream reconstruction, species health came back almost instantly. Also, tree survival rate in the reconstructed riparian was about 95 percent due to the use of alluvial type soils.

Oxford's Jockey Hollow West Mine, permit D-2255, located in Harrison County, near Moorefield, Ohio, demonstrates where the forestry reclamation approach was used to promote successful tree planting. The area was surface mined in the 1950s and 1960s. The former mining company mined the #9 coal seam and proceeded to take one contour cut along the #8 coal seam, leaving water-filled pits and exposed highwalls. Oxford's mining operation eliminated these AML features. The pre-mining land use was undeveloped and the post-mining land use is undeveloped with trees planted on 60 percent of the affected areas.

The State of Ohio owns the property which the Ohio Department of Natural Resources, Division of Wildlife manage as part of the Jockey Hollow Wildlife Area. Oxford worked with DMRM, OSMRE, and other partners including Ohio University, the Ohio Division of Wildlife, the Wild Turkey Federation, the American Chestnut Foundation, and several others to make this project a success. Oxford planted the area in two phases, with the first phase planted on the southern portion in the spring of 2008. In this area, they planted a mixture of hardwood trees, including 3,000 American chestnuts. The planted chestnuts included two types of hybrid trees (15/16ths and 7/8ths pure American) and a pure American chestnut variety. The northern half of the mine area was planted with another 2,000 American chestnuts in the spring of 2009. Approximately 5,000 chestnuts were planted at the Jockey Hollow site, making this site the largest planting of chestnut trees on mined lands in the eastern coal fields.

Tennessee

The State of Tennessee has adopted statutes and regulations designed to protect water quality. Tennessee Code Annotated, Section 69-3-108, was amended in 2009 to require that for activities related to the surface mining of coal or the surface effects of underground mining, with limited exceptions, no coal mining or disposal of spoil or coal waste materials may occur within 100 feet of the ordinary high water mark of a stream. Under the **Responsible Mining Act**, if the State determines that surface coal mining at a particular site will violate water quality standards because acid mine drainage from the site will not be amenable to treatment with proven technology both during the permit period or subsequent to completion of mining activities, the state NPDES permit must be denied. Thus, in effect, no valley fills, mining activities, or in stream ponds are permitted under the Clean Water Act in Tennessee.

Kentucky

Kentucky's Approximate Original Contour/Fill Minimization Protocol is also known as the "**Fill Placement Optimization Process.**" These guidelines provide coal mining companies a set of consistent and reasonable engineering processes they can use when their proposed operations could impact the headwater streams in Kentucky. This engineering protocol was spearheaded by the Kentucky Department for Natural Resources (DNR) and included extensive state and federal collaboration with special representation from both Kentucky's environmental and coal industry to comply with the requirements of both SMCRA and the Clean Water Act.

An engineering team representing Kentucky DNR, U.S. Army Corps of Engineers, the Kentucky coal mining industry, a Kentucky environmental group and the U.S. Office of Surface Mining Reclamation and Enforcement developed the excess spoil fill design protocol. The protocol meets SMCRA's stability and AOC requirements and the alternatives analysis for minimizing stream impact required by the CWA. The protocol maximizes the amount of coal mine spoil returned to the coal mined area while minimizing the amount of coal mine spoil placed in excess disposal sites, i.e. "valley fills." In turn, this minimizes the impact to aquatic and terrestrial habitats in watersheds below the mining operation.

University of Kentucky Robinson Forest – Guy Cove Project

In 2008 construction began on a multi-faceted geomorphic reclamation project on this 100 acre, first order watershed, mined in the early 1990s. The project includes the Forestry Reclamation Approach, stream creation, and a passive treatment system to restore the form and function of a mined first order water-shed. This study, named the Guy Cove Project, is being conducted by the University of Kentucky in partnership with the Kentucky Department of Fish and Wildlife, the Kentucky Department for Natural Resources, OSMRE, and the Army Corp of Engineers. It utilizes a multi-strategy approach with three remediation procedures:

- valley-fill reconfiguration with the creation of a surface-flowing intermittent and four ephemeral streams;
- reforestation using the Forestry Reclamation Approach; and
- creation of a bioreactor-wetland treatment system.

The objectives of this Restoration Project are to:

- Recreate headwater stream functions in an economically feasible manner (perennial 790 feet, intermittent 2,495 feet, and ephemeral 1,555 feet);
- Attenuate runoff events to reduce peak discharges and increase base flows;
- Promote surface expression of water and enhance wetland treatment efficiency to improve water quality;
- Improve habitat through the development of vernal ponds and a hardwood forest;
- Establish an outdoor classroom for demonstrating design principles, construction techniques, and measurement of system performance; and
- Educate a myriad of stakeholders including consulting and mining engineers, land reclamation design professionals, the regulatory community, environmental advocacy groups, and students.

WEEP BERMS

Middle Fork Development Corporation
263 Acre Surface Mine in Magoffin County
Approved mining methods: Area and Remining.

Post mining land use is forestland using Forestry Reclamation Approach
Experimental practice replaces the natural berm with a stable engineered earthen berm.

The constructed earthen berm will collect runoff and allow passive infiltration and seepage that diffuses runoff or “weeps” into the natural forested area. Weep berms have been designed to better mimic the pre-mining hydrology. Middle Fork used surface mine permit 877-0191 as a demonstration mine to prove that a surface mine can be designed and mined to minimize impacts from specific conductivity and metals from entering the waters of the United States. The mining and reclamation plans, put forward by Dr. Richard Warner with the University of Kentucky and Mr. Greg Higgins with Middle Fork, included the following: 1) isolation of spoil that would normally increase specific conductivity; 2) reduction of spoil exposure to weather by mining and reclamation in a very contemporaneous manner; 3) use of the Forest Reclamation Approach (FRA) to reduce surface runoff; and 4) installation of check dams and weep berms to remove the sediment and create a diffuse discharge that replicates the forest hydrology and environment. The new mining techniques were compared to existing mining methods to illustrate the benefits that included elimination of excess spoil disposal in valley fills, elimination of instream or on bench sediment ponds because of the diffuse flow, elimination of stream loss because fills and instream ponds were not necessary to control and treat runoff, and a reduction in runoff because of the FRA approach that minimizes compaction and promotes loose dumping of mine spoil to promote infiltration.

Under the Surface Mining Control and Reclamation Act and the implementing Federal regulations (30 CFR §785.13), a variance from environmental protection performance standards for experimental or research purposes, or to allow an alternative postmining land use, may be undertaken if they are approved by the regulatory authority (Kentucky Department of Natural Resources) and the OSMRE. For the weep berms to be installed on this project, a major revision addressed the experimental practice and the request to waive the Federal and State requirement to maintain a natural berm. OSMRE approved the Experimental Practice for Middle Fork permit number 877-0191 in the spring of 2013.

OSMRE Mid-Continent Region

Illinois

During the 1980's, the Illinois Department of Mines and Minerals (state regulatory authority) approved under SMCRA the mining and restoration of three of the largest perennial stream relocation projects as a result of surface coal mining. Several Illinois surface mines, the state regulatory authority, the Illinois Department of Conservation and the Southern Illinois University of Carbondale's Cooperative Wildlife Research Laboratory (CWRL) developed a plan that accounted for the restoration of both hydrologic and biological function as part of the reclamation of the plans that allowed for mining through Bonnie, Galum and Pipestone Creeks in Perry County, Illinois. Currently restored to their same locations these streams were subject to reassessment as part of an Applied Science project funded by OSMRE between the years 2011 and 2013. This study, conducted cooperatively by the U.S. Geological Survey and the Southern Illinois University – Carbondale's CWRL, examined the streams water quality, fish and macroinvertebrates, stream stability, hydraulics, riparian wildlife habitat and wetland soil quality. These were compared to nearby unmined Little Galum Creek.

Overall, the study concluded that based on most of the stream water quality, wetland soil quality, hydraulic and stream stability, and wildlife habitat parameters measured, the streams and riparian systems have been restored to a level comparable to that of an unmined area. The report did note that there were a few parameters that will take longer to recover such as canopy cover and soil quality in deeper horizons and that certain sections of the restored streams channels show instability having not yet established equilibrium. In summary the restorations provided wide accessible floodplains with wooded riparian corridors and sinuous streams were a large improvement from the straight-line diversion channels that were common historically. While riparian processes were relatively quickly restored and water quality was maintained at near pre-mining conditions, in-stream processes and form will take longer to recover.

Indiana

As a demonstration of BMP's, the Indiana Division of Reclamation, took extraordinary precautions to protect the hydrologic balance in relation to the Hymera Mine located in close proximity to the town of Hymera in Sullivan County, Indiana. The Indiana Division of Reclamation placed numerous conditions on the operations which focused on maintaining water levels in existing abandoned underground mine workings in an effort to prevent subsidence and adverse impacts on nearby lakes and streams. Specifically, the conditions aimed to prevent dewatering of the old works which could increase the likelihood of further subsidence and ensure protection of the hydrologic balance and prevention of offsite impacts. Safeguards that were placed in the permit required the operator to: set trigger elevations on the water levels in the underground mine pools and monitor these levels on a daily basis; fully delineate the old mine works in the vicinity; size coal barriers sufficiently to minimize seepage and prevent drainage from the existing mine pools; and have a plan in place to immediately investigate any inflow into the mine pit and backfill if found to be from the mine works.

OSMRE Western Region

Montana, Wyoming, New Mexico

Surface mining and reclamation activities in Western Region states typically occur in semi-dry areas; such as, the Powder River Basin in Montana and Wyoming, and the San Juan Basin in New Mexico.

Streams in these regions can quickly go from zero flow to flood events after storms. Flood events can impact mining and reclamation operations as well as damage property and the environment.

Mine operators in these areas recognize the importance of understanding the hydrologic characteristics of streams. For that reason, some operators typically exceed SMCRA requirements for the collection of baseline hydrologic monitoring data. Currently, our regulations require baseline hydrologic monitoring data (quality and quantity) on surface water and groundwater sufficient to demonstrate seasonal variations and water usages. Some regulatory agencies have interpreted these requirements as meaning conducting only two baseline sampling events, one during a low-flow event and another during a high-flow event. We believe that an operator needs more than two sampling events to adequately characterize baseline hydrologic

conditions (quality and quantity) in the permit and adjacent areas. Hence, in the proposed SPR, we require the operator collect 12-monthly samples for surface water and groundwater monitoring sites deemed necessary to characterize baseline hydrologic conditions (quality and quantity) in the permit and adjacent areas.

Arizona

At the Kayenta Mine Complex in northern Arizona, Peabody Western Coal Company implements surface water monitoring stations with telemetry to remotely collect surface flow data to capture the complete hydrologic event. The hydrologic information is not only valuable for mine plan operations, but enables the regulatory authority to make more informed decisions on the Cumulative Hydrologic Impact Assessment prepared by the regulatory authority.

Managing the highly variable flow events in the Western Region is also accomplished through adherence to Approximate Original Contour (AOC) requirements using landforming reclamation principles. Restoring to the pre-mining drainage pattern manages the volume of water during the precipitation event, and erosive forces are dissipated by reclaiming mined through streams with sinuous channels. Stream reclamation using landforming principles occurs at several mines in the Western Region. The SPR proposes that the post-mining drainage pattern of all streams be similar to the pre-mining drainage pattern to ensure stability, minimize downcutting, and enhance fish and wildlife habitat. Western Region operations where landforming reclamation principles are applied include the *New Mexico San Juan Mine*, and *McKinley Mine and Navajo Mine on the Navajo Reservation* to name a few.

The Western Region coal mining and reclamation operations are large, and may influence multi-use aquifer systems. For example, coal bed methane development is comingled with coal mining operations in the Wyoming Powder River Basin. For that reason, a robust hydrologic monitoring program is employed to enable the regulatory authority to discern the hydrologic impacts associated with coal mining. Additionally, mine operations in the Powder River Basin independently formed an organization to collectively monitor and evaluate regional hydrologic impacts. The SPR proposes increased baseline groundwater monitoring, and monitoring during mining and reclamation to allow the detection of hydrologic impacts prior to rising to a level of material damage. Other examples of multi-use regional aquifers in proximity to coal mining operations include the Black Mesa Navajo aquifer in northern Arizona, and the Star Point Sandstone aquifer in central Utah.

Award Winners related to the proposed Stream Protection Rule

2007 Active Mine Reclamation Award Winners

Foundation Coal West, INC., Belle Ayr Mine, Caballo Creek Channel Reclamation, Wyoming

Noting the importance of water in this semi-arid area, reclamation began before the Surface Mining Control and Reclamation Act (SMCRA) was signed in 1977 and has resulted in 3.3 miles of reclaimed stream. It has been built to replicate the pools and runs of a typical prairie stream system enabling fish and wildlife to survive in all but the driest conditions. As the stream restoration continues furthering the perennial designation, reconstruction of a small recreational lake is planned.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 27 2015

The Honorable Rob Bishop
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Chairman Bishop:

Enclosed are responses to the written questions received by the Department of the Interior following Secretary Jewell's appearance before your Committee on the Department's spending priorities and fiscal year 2017 budget request.

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional
and Legislative Affairs

Enclosure

cc: The Honorable Raúl M. Grijalva
Ranking Member

**Post-hearing Questions
Committee on Natural Resources
Hearing on DOI FY 2017 Budget Request
March 1, 2016**

Questions from Subcommittee on Federal Lands:

- 1. How much collectively, are your agencies requesting to address deferred maintenance? With that requested amount, will the backlog go up, down, or stay the same? Why?**

Response: The Department of the Interior owns and operates over 110,000 buildings and structures, more than 100,000 miles of public roads, and a wide variety of other constructed assets such as dams, irrigation systems, and trails. These facilities serve nearly 500 million visitors annually, provide schooling for approximately 46,000 Native American children, and are a place of work for Interior employees. The current replacement value of these assets exceeds \$240 billion. As the steward of these assets, Interior is committed to improving the condition of these existing facilities and making the capital investments in facilities that are critical to its mission.

In the 2017 President's Budget, the Department requested a total of over \$1.4 billion in discretionary funding for maintenance needs across Interior's bureaus and offices. The budget estimates that an additional \$133.2 million in recreation fees will be directed toward maintenance in 2017.

Roughly half of the deferred maintenance backlog is attributable to roads, bridges and tunnels – critical infrastructure that has been historically funded through Interior's discretionary appropriation and through Title 23 mandatory funding. The recently authorized Fixing America's Surface Transportation Act (FAST Act) will provide this mandatory funding from 2016 through 2020 for federally-owned roads through the Federal Lands Transportation Program. In 2017, this equates to \$276 million for the National Park Service, \$30 million for the Fish and Wildlife Service, and \$22 million in competitively awarded funds for other agencies, including the Bureaus of Land Management and Reclamation. In addition, the Tribal Transportation Program, operated jointly by the Federal Highway Administration and the Bureau of Indian Affairs (BIA), will provide \$475 million for roads that provide access to Tribal lands or are owned by Tribes or the BIA.

While these represent significant investments in maintenance funding across the Department, the magnitude of the need is high as well. At the beginning of FY 2015, deferred maintenance for all DOI bureaus was reported as \$15.6 billion. At the end of FY 2015, this had grown to \$16.1 billion. While Interior employs strategies such as a 5-year capital planning process to ensure that

funding is directed toward the highest priority projects, we do not foresee a reduction in the total amount of deferred maintenance in the near future.

2. According to DOI, over the last five years 99 percent of the Department's acquisitions were inholdings, already within existing park or wildlife refuge units.

[A] What percentage of the total acquisitions over the last five years using LWCF money have been inholdings, meaning a parcel that directly abuts federal land on at least majority of its border?

Response: Over the last five years, 99 percent of the federal lands acquired by with LWCF funds were inholdings, lands within the authorized boundaries of a conservation unit, such as a national park or wildlife refuge. Acquisition of inholdings can reduce maintenance and management costs by decreasing boundary conflicts, simplifying resource management activities, and facilitating access to and through public lands. Since 2011, Congress has appropriated funding for four projects where acquisitions did not lie completely within the boundary of an existing conservation unit at the time of the appropriation, but were adjacent to or bisected by the boundary (known as "edgeholdings"). In all instances, acquisitions using LWCF funding were authorized by the LWCF Act and by Congressional appropriations.

[B] What percentage of the total acquisitions using LWCF money have been used to acquire land that does not border existing federal land at all, but is within a federal management area, like a Park Service Unit or Wildlife Refuge?

Response: As noted above, over the last five years, 99 percent of the federal lands acquired by with LWCF funds were inholdings, lands within the authorized boundaries of a conservation unit, such as a national park or wildlife refuge. Acquisition of inholdings can reduce maintenance and management costs by decreasing boundary conflicts, simplifying resource management activities, and facilitating access to and through public lands. Since 2011, Congress has appropriated funding for four projects where acquisitions did not lie completely within the boundary of an existing conservation unit at the time of the appropriation, but were adjacent to or bisected by the boundary (known as "edgeholdings"). In all instances, acquisitions using LWCF funding were authorized by the LWCF Act and by Congressional appropriations.

We also note that land within a conservation unit need not adjoin existing federal land to achieve resource protection goals. For example, certain federally listed species occur only on specific sites, and do not require large contiguous blocks of habitat. A FWS refuge's acquisition boundary might contain 10 different sites that support self-sustaining or potentially self-sustaining populations of a federally-listed species, and the FWS may want to acquire all of these

separate sites, in fee or easement. In such instances, it may not be necessary or cost-effective to acquire even more land simply to connect these sites to existing federal land.

[C] If land, purchased with LWCF funding, is acquired by the federal government for recreational purposes, does DOI commit to building trailheads, infrastructure, and other recreational facilities on that parcel?

Response: If the Department purchases land for recreational purposes using LWCF funds, there is an implicit commitment that we will develop the appropriate infrastructure needed for public use and enjoyment of the land. However, land purchased for passive recreational purposes may not need much infrastructure. Locally developed management plans for each park or refuge determine the future use of the acquired lands and what, if any, visitor facilities should be placed on the land.

[D] Does DOI have any ability to account for and assure recreational use of a parcel or easement after it has been acquired using LWCF dollars? If no, how can you be sure that it is being used for that purpose?

Response: Yes. If land or an easement has been acquired for recreational purposes, Department will manage the lands in accordance with the local management plans of the BLM, FWS and NPS.

In fact, when considering a parcel for acquisition, FLPMA requires that the acquisition be consistent with any approved land use plan and the LWCF evaluation process seeks to build on recreational opportunities for the public in the use and enjoyment of their public lands. Through BLM's record notation system, LR2000 and Master Title Plats, BLM flags parcels that are acquired with LWCF and therefore, not available for disposal.

Similarly, when the FWS, with a mission to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people, acquires land in fee, the land becomes part of the fabric of the refuge, and is managed in accordance with the refuge's overall Comprehensive Conservation Plan. If the stated purpose of a refuge is compatible with wildlife-dependent recreation, the refuge is typically open to the public. While the vast majority of refuges are open to the public for wildlife-dependent recreation, there are instances where portions of a refuge or an entire refuge cannot be opened for recreation because recreational activity would be unsafe or would jeopardize fragile wildlife habitat. Furthermore, the FWS acquires the minimum interest necessary to reach management objectives. Therefore, acquisition of conservation easements may be the best option for the FWS and the community. However, easements may not permit public recreation if property owners do not wish to have people on their land, especially if the landowners are still actively farming the land or using the land for livestock.

And finally, the NPS provides for visitor enjoyment of the resources located within each of the units of the National Park System. If a national park unit includes lands that were purchased with LWCF funds specifically for recreational purposes, the management plan would reflect that. NPS maintains records of visitation for each unit.

[E] How much of DOI's deferred maintenance backlog can be attributed to lands acquired using LWCF funding?

Response: Acquisition of land utilizing LWCF funding does not significantly contribute to the Department's deferred maintenance backlog. For example in the FY2016 NPS request, only 11 of the 40 line-item land acquisition requests anticipate costs for operations and maintenance of the lands, while 9 project savings and 20 are neutral. In the FY2017 NPS request, one of the 32 requests has structures that will be maintained. Furthermore, acquisition of inholdings can reduce maintenance and management costs by decreasing boundary conflicts, simplifying resource management activities, and facilitating access to and through public lands.

[F] When DOI agencies purchase land using LWCF money, does it commit to performing short or long-term maintenance on that parcel?

Response: When the Department's agencies acquire land by any means, those agencies become responsible for the acquired lands. The Department is committed to the long-term management of federal lands. We also note that BLM generally avoids acquisition of land encumbered with facilities, and, more often than not, the parcels acquired within specially designated areas require no additional maintenance and provide the ability to more efficiently manage the landscape. Similarly, when FWS acquires property in fee, it manages the property as wildlife habitat and typically incurs no annual maintenance costs. And, for the NPS, the need to protect and preserve the resources and enhance visitor safety and satisfaction within units of the National Park System will determine what, if any, maintenance will be performed.

[G] What percentage of lands and easements acquired with LWCF money in the last 15 years was purchased from a land trust or other non-governmental organization?

Response: For the NPS, from January 1, 2000, through March, 2016, 9,690 tracts were acquired by all methods. Of that, 539 tracts (or 5.5%) were purchased from non-governmental organizations.

For the FWS, purchases from non-governmental organizations represent approximately 30% of total acres (169,574 of 571,255 acres) and 39% (\$241,272,046 of \$620,329,745) of the LWCF project funding over the last 15 years.

[H] What percentage of lands and easements acquired with LWCF money in the last 15 years was purchased in tandem with funds provided by a land trust or other non-governmental organization?

Response: The Department does not separately track the percentage of lands and easements acquired with LWCF that are purchased in tandem with funds provided by a land trust or other non-governmental organization. In many cases, non-governmental organizations purchase lands that may otherwise be lost for conservation purposes and hold those lands until federal agencies secure appropriations to acquire the land.

- 3. The ESA requires the Secretary to conduct, at least once every five years, a review of all species included on the list of threatened and endangered species and determine whether any such species should be delisted, downlisted, or uplisted.**

How many status reviews has the Service budgeted for fiscal year 2017, and what is the estimated cost?

Response: The Service conducts five-year reviews in every fiscal year, but the number of reviews completed varies based on workload and priorities. Recovery planning, implementation, and monitoring, as well as proposed and final downlisting and delisting rules are funded with the same recovery subactivity in the budget; in some years, those activities may take priority over five-year reviews. We do not budget for five-year reviews separately and thus have not developed an estimate of the number of reviews or total cost for this particular activity.

- 4. According to you, this Administration has delisted more “recovered” species than any other since the ESA was enacted. According to the Fish & Wildlife Service’s FY 2017 budget justification, approximately 49 species have 5-year reviews that recommend downlisting or delisting. Millions of dollars have been allocated to the Service for conservation and restoration activities in previous years, which covers de-listing and downlisting activities.**

[A] Why haven’t those de-listings and downlisting taken place?

Response: One of the major goals of the Endangered Species Act is to minimize or remove the threats that led to a species listing so that it can be delisted or reclassified—or downlisted—from “Endangered” to “Threatened”. The development of a recovery plan is one of the first steps toward meeting that goal. Recovery plans help guide and measure the progress of the recovery process. The Endangered Species Act, directs FWS to develop and facilitate implementation of recovery plans for listed species, monitor the implementation and effectiveness of recovery actions, review the status of each species at least every 5 years, develop rules for reclassification and delisting of species whose status has improved, and evaluate and respond to petitions to delist or reclassify species. All of these require close coordination with our partners as well as sufficient time to

monitor and implement adaptive management. Given the growing number of listed species and the resources available, the Recovery Program must make difficult tradeoffs among the activities identified above, all of which are important for achieving recovery of listed species. The Service's FY 2017 budget request would direct additional funds towards the proposed or final rules based on the 5-year review recommendations.

[B] When will the Service take action on those 49 species?

Response: The Service plans to pursue downlisting or delisting for the 49 species as soon as possible within available resources and based on the tradeoffs among the varying priority recovery actions.

[C] How does the Service define the backlog of delistings and downlistings? For instance, how much time has to pass before a potential delisting or downlisting is considered backlogged?

Response: "Backlog" is a term of art, not one derived from the language of the Act. In this context, it refers to the species for which a five-year review has recommended that a delisting or downlisting proposal is warranted, but for which the Service has yet to initiate such a rulemaking.

- 5. Your department recently finalized rules under the ESA that would allow it to designate critical habitat in areas that are not only unoccupied, but that never have been occupied, with the supposition that you would designate them because they may be needed in the future for the species based upon climate change related expectations. The rule essentially allows the Service to designate critical habitat in areas where a species has never lived. It appears as if the rule asserts authority that is entirely untethered from the authority granted by Congress in the Act itself.**

[A] Do you believe Congress ever intended the Secretary to have the authority to designate habitat where a species has never lived simply because you may believe that at some future point that area might be needed because of climate change or habitat adaptation?

Response: The Act expressly allows for the consideration and inclusion of unoccupied habitat in a critical habitat designation if such habitat is determined to be essential for the conservation of the species. The FWS determines whether unoccupied areas are essential for the conservation of the species by considering the best available scientific data regarding the life-history, status, and conservation needs of the species.

There have been specific circumstances, as discussed in our final rule, where data show or predict a shift in habitat availability or use by a species in response to the effects of climate

change. An example might be a landward shift in tidal marsh habitat as a result of predicted sea level rise. In cases where the best scientific data available indicate that a species may be shifting habitats or habitat use, it is permissible to include specific areas accommodating these changes in a designation, provided that the Services can explain why the areas meet the definition of “critical habitat.” The data and rationale on which such a designation is based will be clearly articulated in our proposed rule designating critical habitat.

[B] Do you believe that these rules will lead to a significant increase in the amount of critical habitat designated by the Service?

Response: No, the changes to the regulation are not expected to significantly expand the areas included in any particular critical habitat designation. We expect that the concurrent evaluation of occupied and unoccupied areas for a critical habitat designation will allow us to develop better designations that can serve as more effective conservation tools, focusing conservation resources where needed and minimizing regulatory burdens where not necessary.

[C] Does the Service have the resources to manage an upsurge in the amount of overall critical habitat for listed species?

Response: As stated above, we do not expect the changes to the regulation to significantly expand the area included in any particular critical habitat designation.

- 6. Despite the fact that the Service has requested over millions of dollars to acquire thousands of acres of land, the agency has proposed to eliminate the discretionary portion the National Wildlife Refuge Fund, which provides revenue sharing payments to counties with National Wildlife Refuge System (NWRS) lands. According to the Service’s budget justification, “[r]efuges often generate tax revenue for communities far in excess of that which was lost with Federal acquisition of the land.”**

[A] How much economic development is generated from NWRS lands per acre?

Response: The Service has not done a per acre analysis, however, according to the Service’s 2013 Banking on Nature Report, 47 million people who visited refuges in 2012 contributed a total of \$2.4 billion of sales to nearby local economies.

[B] What is the return on investment of the NWRS, in terms of money appropriated to manage the system and revenue generated?

Response: The Service’s 2013 Banking on Nature Report estimated that refuge visitors generated \$342.9 million in tax revenues and \$2.4 billion of sales in 2012 in a year that the

NWRS was appropriated \$485.7 million. This represents a [5:1] return on investment for every Federal dollar expended. The 2016 appropriation to manage the National Wildlife Refuge System was \$481.4 million, but at this time, there is no estimate of what the return on that investment will be.

- 7. Currently, there are over 64,000 wild horse and burros on federal lands with nearly 50,000 in long term holding facilities. In FY 2015, the BLM spent \$75.2 million on the horse and burro program. Taxpayer dollars were used to remove a small number of horses from the rangelands (\$1.8 million), adopt out approximately 2,000 horses (\$6.3 million), and care for horses and burro in long- and short-term holding facilities (\$49.4 million). Costs continue to increase every year, as horse and burro populations continue to grow.**

[A] Does the BLM have a plan to address the unsustainable horse and burro program and return population levels to the appropriate management level (AML) of 27,000 animals as established in law?

[B] Why is BLM not keeping up with required appropriate management levels?

[C] Is BLM removing a sufficient number of animals from the range to keep up?

[D] Does BLM have capacity at its short and long-term holding facilities?

[E] If so, why are more animals not being removed from the range and placed in holding? BLM has received substantial funding level increases in the last several years to do so.

Response: BLM faces many challenges in managing wild horse and burro populations on public rangelands, including a rapid population growth rate and no natural predators. Costs also continue to increase, for both pasture and holding facilities, and adoptions have steadily declined since the early 2000s, increasing the number of animals in off-range holding corrals.

BLM is now managing more than twice as many horses on the western rangelands as is recommended for a healthy balance between horses, wildlife, cattle, and other resources. Horses that are removed from the range, but remain in the care of the agency at a cost to the American taxpayer of nearly \$50,000 per animal over the animal's lifetime; put simply, the costs of this program are substantial and unsustainable.

On-range annual population increases are substantially greater than the number that the BLM removes each year. The Program is currently limiting removals to 3,500 per year, about the

same number that leave holding facilities annually through adoptions, sales, and mortality attrition. Financial resources are not adequate to care for greater numbers of animals than are currently in off-range facilities.

With more than 100,000 horses in BLM's care both on and off the range, the agency is redoubling its efforts to reduce the number of horses in holding facilities. The BLM aims to reduce that cost by moving more animals from long-term corrals to contracted pasture spaces, which are more cost effective and would reduce the lifetime cost of caring for an unadopted animal. However, we recognize that this is only part of the solution. The FY 2017 budget request supports new, innovative efforts to secure safe and cost-effective placement for unadopted animals, which will work in tandem with more proactive efforts beginning in 2016 to better manage the overpopulation problem. In addition to expanding use of contraceptives and spay and neuter treatments, the BLM is proposing legislation to better facilitate the transfer of animals to other public entities, including local, state, and federal government agencies.

8. Just a few weeks ago, the federal grazing fee was raised by the maximum 25% allowed by law in any given year.

[A] Please provide the data that was used to support this price increase.

[B] How old is the livestock price, cost of livestock production, and private leasing rate data used in the equation?

Response: Grazing fees are set yearly under authority of the Public Rangelands Improvement Act of 1978. The formula used for calculating the fee has been continuously applied under a presidential Executive Order issued in 1986. The fee is computed by using a 1966 base value of \$1.23 per animal unit month/head month and is calculated according to three market-driven factors – current private grazing land lease rates, beef cattle prices, and the cost of livestock production. The fee adjusts up or down based on market conditions.

9. In this budget request, the Department has proposed a \$2.50 fee for grazing on federal lands, which is in addition to the annual grazing fee, according to the formula set by law. How did the Administration come up with the \$2.50 amount for this additional fee?

Response: The goal of the fee is to recover some of the costs of administering the permits and leases of the grazing program from parties who benefit from the use of the public lands and resources. In 2017, the administrative fee would generate \$16.5 million, which would fully offset a reduction of \$16.5 million in requested appropriations for the Rangeland Management program.

10. We understand that land management agencies are working to refurbish the federal government's campsite booking website, Recreation.gov, which hosts virtually all online booking for the National Park Service, U.S. Fish and Wildlife Service, Bureau of Reclamation, and U.S. Forest Service campgrounds, and even many of the Army Corps of Engineers facilities.

[A] What is the Department of the Interior doing to ensure that any improvements to the online reservation system do not risk ending up with missed deadlines and rollout delays caused by mismanagement and untested products or custom created software?

Response: The Recreation.gov contract is funded entirely by revenues generated from the recreation fees and reservation fees charged to visitors who make reservations. The current contract that provides the reservation and trip planning service for Recreation.gov is nearing the end of the period of performance. The current contract will be extended as needed to ensure that there is no disruption of service.

The Recreation One-Stop (RIS) program has been conducting market research for over two years in order to identify emerging technologies and additional vendors who can provide the kind of service that meets modern customer expectations.

The RIS program has adopted the tenets laid out in the US Digital Services Playbook in which we will employ 'Agile' software development principles and processes. Agile development is the new norm in the private sector and, by following its best practices, we aim to provide a superior service and user-friendly customer experience. This will entail face-to-face meetings with the contractor's program management and software development teams. We intend to work in short 'sprints' to write, test, and deploy usable code that will provide all of the tools for trip planning, reservations, financial processing, reporting, design and customer service. As sprints are completed, we will test each portion of the code to ensure that it meets the government's needs and public expectations. Code that does not pass testing will be immediately returned to the backlog for correction. By using this method, the RIS program will be involved at every step to ensure that we do not end up with an unusable product when it is time to transition. The public and many other stakeholders will be involved in the development and testing throughout this process to ensure that we are able to deliver what the public wants. The contract requirements include the highest levels of information security, privacy protection, secure financial processing, and compliance with all applicable laws and regulations pertaining to government IT services.

[B] As a way to ensure data security indeed does meet the highest standard, will you be using vendors who are Payment Card Industry Data Security Standard (PCI) compliant?

Response: Payment Card Industry Data Security Standard (PCI) compliance is an absolute requirement in the new (and current) contract. With the number of credit card transactions processed, the contractor's system is required to meet the highest level of PCI compliance. The contractor must also deliver security that ensures compliance with Federal Risk and Authorization Program (FedRAMP), Federal Information Processing Standards (FIPS), Federal Information Security Management Act (FISMA), and the Privacy Act.

11. While many land management agency units are available as part of Recreation.gov, we know there are additional units that could benefit from additional exposure. What are doing to make sure more of your units are able to be part of the Recreation.gov system and what are the timeframes for bringing them online?

Response: Recreation.gov currently hosts reservation services for over 3,200 locations which include campgrounds, picnic shelters, cabins, lookouts, yurts, tour ticketing, event lotteries, and a variety of wilderness permits. More locations continue to be added every year. When the system was launched in 2006, the primary focus was to provide reservations for basic front country campgrounds. Since that time, the RIS program recognized the need to expand the service to cover many different types of facilities and activities. This was one of the driving factors in moving to a more agile approach that affords the agencies the flexibility to use the platform for a wide variety of facilities and activities.

The RIS program expects that, upon launch of a new contract, the service will be able to support many more operations; this should facilitate the incorporation of reservation services more broadly. The new contract also requires that the contractor proactively 'market' the service to all agencies where it is appropriate. This includes offering web services which can improve the efficiency and effectiveness of local operations.

12. In September 2015 there was a paid ticketed for-profit music event held on the National Mall called the Landmark Music Festival. The event was marketed as an event to raise awareness and revenue to support the restoration and preservation of the National Mall. As noted in a Washington Post article, dated September 22, 2015, questions were raised about how this for-profit event was developed and structured. We know that the National Park Service is seeking to expand its use of public-private partnerships to help reduce the deferred maintenance backlog and supplement funding for the National Mall, which is something we support. However, we also believe it is essential that the Park Service creates those partnerships in a fair and transparent manner that maximizes return to the Parks for the use of the National Mall.

[A] As this was the first event of its kind, can you describe the bidding process that occurred for this event?

[B] How many vendors competed to host the event?

[C] Who at the Park Service gave permission to hold a for-profit event on the National Mall?

[D] How does the Park Service intend to manage these types of for-profit events on the National Mall in the future?

Response: The 2015 Landmark Music Festival was organized and sponsored by the Trust for the National Mall (the Trust), the primary philanthropic partner of the National Mall and Memorial Parks. While it was a paid ticketed event, it was not a “for-profit” event. The intent of the event was to connect a younger and diverse population to national parks, and for the Trust to raise funds to support their mission to preserve and revitalize the National Mall. As this event was held by the Trust, the Trust retained responsibilities associated with its implementation, including any bidding or competitive process to organize or promote the event. The NPS was not involved in any of these activities.

The Trust applied for and received a special event permit as outlined in the process described by 36 C.F.R. § 7.96(g) and NPS’ *Management Policies 2006*: A ticketed event may be permitted in specially designated locations if the superintendent determines that (1) there is a meaningful association between the park and the event, and (2) the event will contribute to visitor understanding of the significance of the park. In this case, it was determined by the park superintendent that West Potomac Park could be used for a ticketed music event because the event satisfied the above criteria. As the primary partner responsible for raising awareness and funds for the National Mall and Memorial Parks, the Trust was in a unique position to satisfy these criteria.

While it was deemed appropriate in this instance for the concert to occur in West Potomac Park, we believe that activities on the Mall and within the memorial core must remain free and open to the public. Future applications for special event permits will be reviewed against the criteria listed above.

13. The National Park Service and the Department of Interior are in the process of planning for the 2017 Presidential Inauguration. Unfortunately, there has been a lack of real progress on a permanent installation of a distributed antenna system on the National Mall to ensure cell phone connectivity during large events. The Pope’s recent visit to DC again highlighted the failure of the telecommunications system on the National Mall and despite best efforts by the wireless carriers to boost capacity by bringing in temporary antennas, or Cell on Wheels, the National Mall continues to be a dead zone during large events. The lack of cell coverage is more than merely an inconvenience as most Americans now rely on cell connectivity to communicate, download information and learn about their surroundings and lack of coverage

could be disastrous in an emergency situation. I think we can all agree that Americans should be able to use their cell phones in their Front Yard.

[A] As such, how is the Department of Interior and the National Park Service planning to ensure cell connectivity during the 2017 Inauguration?

Response: The NPS recognizes the complications with cellular service that arose during the 2009 Presidential Inauguration. In an effort to avoid lapses in service for park visitors, the NPS took additional steps during the 2013 Inauguration as well as during the Pope's visit in 2015 to ensure adequate cellular service coverage. The NPS will continue to use strategic placement of COWs (Cell on Wheels) as an interim strategy that can be used to serve park visitors until a comprehensive Distributed Antenna System (DAS) can be permanently installed.

In addition, the NPS is working with multiple partners to provide free Wi-Fi service at several locations on the Mall, including the World War II Memorial, the Korean War Veterans Memorial, and the Washington Monument. The Wi-Fi systems provide less expansive coverage and less bandwidth than a DAS system but they require less substantial infrastructure and installation is virtually invisible. The first of these systems should be functioning within a few months.

[B] What is the status of the Distributed Antenna System for the National Mall?

Response: The NPS issued a Request for Information (RFI) in 2014 so that it might better understand the potential benefit of deploying a Distributed Antenna System (DAS) and the likely impact of its installation on the treasured landscape of the National Mall. The NPS is reviewing the multiple responses to the RFI, and it is evident that installation of a DAS will require an exacting design effort, substantial environmental and historic preservation compliance, and approvals from the Commission of Fine Arts and the National Capital Planning Commission.

In concert with the technical review of RFI submissions, the NPS is working to address several critical issues for the installation of a DAS, including determination of the appropriate method of authorization (lease, concession, permit, or commercial use authorization), and coordination with Mall "neighbors" (the Smithsonian Institution and the Architect of the Capitol). A survey of potential equipment locations on the Mall has been undertaken to assist in the identification of feasible locations for equipment installation. The NPS is also exploring cooperation with the District of Columbia Government to leverage the District's existing and substantial fiber optic infrastructure.

Questions from Subcommittee on Oversight & Investigations:

- 14. The recent proposal to down list of the Florida manatee from endangered to threatened creates the possibility for the Fish and Wildlife Service (FWS) to use section 4(d) of the Endangered Species Act to create a rule that would allow the taking of manatees.**

Given that the Environmental Protection Agency (EPA) concluded that the Clean Power Plan would not have any effect on the Florida manatee, can you commit to not issuing a 4(d) rule that would allow for harming or otherwise “taking” manatees under the ESA as a result of the loss of warm water sanctuaries caused by the closure of coal-fired power generation facilities?

Response: It is correct that the ESA provides greater flexibility when it comes to authorizing incidental take for threatened species. Should the Service reclassify the West Indian manatee to threatened, the agency currently has no plans to publish an accompanying 4(d) rule.

- 15. On November 3, 2015 the president issued a memorandum on mitigation of resource impacts related to development and permitting. The memorandum instructs the Interior Department and other agencies to issue new regulations emphasizing compensatory mitigation as well as a new standard of a “net benefit or at minimum, no net loss” for resources that are “important, scarce, or sensitive” or possess “irreplaceable character.” The administration has stated that one goal of this policy is consistency across agencies regarding mitigation. However, officials from the Council on Environmental Quality and the Department of Interior told committee staff during a recent briefing that each agency will define the parameters of terms like “important,” “scarce,” “sensitive,” or “irreplaceable” in each of their respective regulations and be allowed to define the terms as they see fit.**

Are you concerned that each agency writing its own parameters or definitions could result in inconsistent parameters or definitions?

Response: A main objective of updating mitigation policies is to promote more consistency across and within the Department’s bureaus as to how the steps of the mitigation hierarchy are implemented and in the development of mitigation recommendations and requirements. These documents create consistency in how bureaus implement mitigation in a number of important ways, including the use of a compensatory mitigation goal; a clear and stated preference when selecting between compensatory mitigation providers; use of standardized definitions and terms; and adherence to a consistent set of standards to ensure equivalency among compensatory mitigation providers.

One area where standardization was not intended is when determining what resources require mitigation. The Department's bureaus are responsible for managing different resources, for different uses, under a range of specific authorities. The use of terms such as "importance," "scarcity," "sensitivity," or "irreplaceable" are meant as parameters to guide bureaus and offices in making similar decisions about what types resources may require mitigation, not what specific resources should be targeted. Where multiple bureaus and offices have responsibility in managing a particular resource, the use of a landscape-scale approach to planning and permitting allows for more integrated and consistent management, including in the application of mitigation.

16. In 2012, the OIG issued a report highlighting critical problems with BLM's management of its wind and solar programs, specifically with regards to the adequacy and management of the bonds BLM requires for those projects on federal land. Three years later, GAO looked at the same program and found that many of the same problems still had not been addressed. Addressing findings in the GAO report, it is sufficient to say that BLM is not ensuring that the bonds it receives are adequate to cover reclamation costs if a renewable project is abandoned, BLM is not reviewing bonds regularly, and BLM is not responsibly tracking the bonds to make sure they're not lost – or accidentally shredded, as GAO reported.

The Oversight and Investigations Subcommittee held a hearing when the GAO report came out to shine a light on these problems and prompt BLM to address them. However, over six months later, BLM still has not fully implemented GAO's recommendations. Additionally, the same official who was responsible for implementing the OIG's recommendations back in 2012 is still in his post as BLM's Assistant Director for Energy, Minerals, and Realty.

Why has the person responsible for fixing these problems not been held accountable after almost 4 years and when will BLM fully comply with GAO's recommendations on this issue?

Response: As BLM has indicated to the subcommittee, the bureau has made significant progress in ensuring that its bonding policies and procedures are being followed. It has issued a series of instruction memoranda to address GAO recommendations and initiated a field office review of all solar and wind energy authorizations that require bonds to ensure adequate bonds are in place to cover up-to-date reclamation cost estimates. Moreover, finalization and implementation of the competitive solar and wind leasing rule, anticipated to take place in 2016, will address the last of GAO's recommendations for the program.

17. During a Senate Energy and Natural Resources Committee hearing in February, You were was asked about OSM's need to re-engage states and local stakeholders in the rule making process for the Stream Protection Rule. Your answer to this question was that "OSM is engaging with States at that point", that "States were engaged early", and that "[the States'] input was taken." One hearing this testimony would think nothing at all was the matter with OSM's rulemaking process even though it has repeatedly excluded the states.

Last year the Oversight and Investigations Subcommittee held a hearing on that very topic, where we heard from multiple states who had attempted to participate in the draft EIS process. All of them were extremely frustrated with the process and believed that OSM could do a better job coordinating with them. This is in addition to the many public letters the states sent to Director Pizarchik expressing their complaints, and in some cases, terminating their MOUs as cooperating agencies with OSM. They specifically complained about OSM's "piecemeal approach, lack of adequate time for review and comment, the overall quality of the [draft EIS], major deficiencies, inconsistencies, and missing reference material evidenced in the draft documents."

The Director of the Alabama Surface Mining Commission testified that "the cooperating states have essentially been shut out of the process and been relegated to the sidelines as OSMRE moved forward with the EIS."

How can you claim that OSM truly engaged with the states, when so many of them felt it necessary to terminate their MOUs and revoke their "cooperating agency" status?

Response: The Department has actively engaged, and continues to engage, with states regarding the proposed stream protection rule. The rulemaking process began with an Advance Notice of Proposed Rulemaking, stakeholder outreach meetings, nine public scoping meetings and two public comment periods on the scoping for the draft environmental impact statement (DEIS), generating over 50,000 comments. A number of state agencies, including state SMCRA regulatory authorities, participated as cooperating agencies in the early development of the DEIS, and provided meaningful input and numerous comments that were used to prepare the DEIS.

The DEIS was also made available to cooperating agencies and the public for review and comment during the public comment period, which was extended to provide interested parties more time and opportunity to review and comment on the document. Moreover, OSM conducted six public hearings in Colorado, Kentucky, Missouri, Pennsylvania, Virginia and West Virginia during the public comment period and received approximately 95,000 comments, including hundreds of pages of comments from state SMCRA regulatory authorities, on the DEIS and the

proposed stream protection rule. In October 2015 OSM also offered all former cooperating state agencies the opportunity to reengage in the development of the final EIS, and has continued to engage in discussions with the states to better understand their comments on the proposed rule.

Questions from Rep. Denham:

18. In California's Statewide Proposition 48, the citizens formally rejected the California Governor's and State Legislature's approval of a Class III Indian gaming Compact between the North Fork Rancheria of Mono Indians and the State of California that authorized Class III gaming on lands that the North Fork Band acquired into trust after 1988 in Madera, California. Are you prepared to recognize the decision rendered by the California electorate in Proposition 48 and the State's own interpretation of California State law? If not, why?

Response: The Department must follow the compact review requirements set out by Congress in the Indian Gaming Regulatory Act (IGRA). IGRA sets out a process for the Department to follow when tribes and states agree to a compact. IGRA also sets out a process the Department will follow when a tribe and a state cannot agree on a compact. In reviewing any submitted compact, the Department will adhere to IGRA's process. However, as it pertains to this specific question, the Department cannot comment on matters currently in litigation but as stated above, will continue to adhere to IGRA.

19. Are you prepared to refuse to approve a Class II Gaming Compact submitted to you by North Fork or a mediator which authorizes Class III gaming on this Madera site? If not, why not?

Response: On April 26, 2016, the court-appointed mediator transmitted the selected compact to the Department. The Department will adhere to IGRA's requirements in reviewing the mediator's selected compact.

Questions from Rep. Gosar:

- 20. Are you aware that the Forest Service conducted a comprehensive study in 2010 and released a Finding of No Significant Impact for the bipartisan exchange signed into law in 2014 stating and I quote, "The selected action will not cause loss or destruction of significant scientific, cultural or historical resources?"**

Response: Yes, however, the listing is based on the documentation included in the certified National Register Nomination form submitted to the Keeper in 2015 by the Federal Preservation Office of the U.S. Forest Service in accordance with the provisions of the National Historic Preservation Act of 1966, as amended and the National Register Program Regulations (36 CFR, Part 60). The documentation submitted to the Keeper does not include or reference the "comprehensive study in 2010" cited in the question.

- 21. Oak flat has never been a sacred site, yet the Park Service is intent on opposing this project and trying to list this rundown campground as a historic site, potentially delaying the creation of 3,700 new jobs and \$60 billion in associated economic impact that will come from the mine. Did you know that a poll found that the majority of the San Carlos Tribe actually supports the mine?**

Response: The Keeper listed the property in the National Register based on the documentation provided and certified by the U.S. Forest Service. The Keeper's decision did not support or oppose any specific project; rather, it was based solely on the site's significance as a Traditional Cultural Property. The Keeper found that the documentation, much of which was derived through government-to-government consultations with the San Carlos Apache and other tribes, justified the listing of Chi' chil Bildagoteel (Oak Flat) in the National Register for its significance as a Traditional Cultural Property. Based on this finding, and in accordance with the provisions of the NHPA and 36 CFR, Part 60, the Keeper had no legal alternative to listing the property.

- 22. What would you like me to tell tribal members who are in dire need of these jobs and have seen unemployment numbers as high as 70% when they ask me why Secretary Jewell opposes this mine project and good-paying jobs for their family?**

Response: The Secretary is committed to helping American Indian and Alaska Native communities find opportunities that will enhance long-term economic development and promote near-term economic opportunities. The Keeper's decision to list Chi' chil Bildagoteel did not support or oppose any specific project; rather, it was based solely on the site's significance as a Traditional Cultural Property.

- 23. The day before the House passed my Grand Canyon Bison Management Act as part of the Sportsmen's Act, the Park Service ditched a plan it had been doing**

environmental studies on for more than two years, in order to undermine my bipartisan bill.

Two years wasted and now the Park Service intends to pursue a short-sighted and costly proposal for managing invasive bison within Grand Canyon National Park that utilizes expensive sharpshooters.

Our bipartisan and bicameral bill meanwhile, puts state licensed Arizona hunters to work accomplishing this important task for free.

What's the typical cost to the agency when utilizing sharp shooters to reduce a big game herd by 400-600 animals?

Response: The cost of culling operations depends on the environments where they take place and the means through which they were contracted. Here are a couple of examples:

Channel Islands National Park: Culling operations cost approximately \$519,000 (~\$1000/animal)

Catoctin Mountain Park: Culling operations cost approximately \$571,000 (~\$525/deer)

24. How much money did the Park service spend on the long-term EIS for bison management in the Grand Canyon before shifting gears to the short-term EA?

Response: The NPS has spent \$125,762 on the contract for the long-term EIS and EA to date. The total costs for the complete EIS was expected to be \$341,412. Much of the work associated with the EA is the same as it would have been for the EIS; however, the NPS expects a savings of approximately \$13,500 by switching to an EA.

25. A January 2, 2009 letter from more than 100 environmental and conservation groups reported that USDA and DOI spend roughly \$100 million on expensive sharpshooters each year.

To make matters worse when sharpshooters have been used to kill big game previously, your agency has left these carcasses rotting in the park so nature's other critters can feed on them. Do you believe leaving a big game carcass rotting in a National Park is the most humane and efficient way to dispose of this meat?

Response: Only in rare occasions has the NPS left carcasses in the field. In over 90% of ungulate culling situations in NPS units, the NPS requires the use of non-lead ammunition for safe meat consumption. Carcasses are removed and donated to various entities including local food banks, citizen volunteers, tribal members, or other groups. When carcasses are left in the field, it is for logistical reasons; for example, in some very remote locations it can be very costly

to remove carcasses. In addition, when implemented, this practice supplements natural scavenging for wildlife.

26. On June 10, 2015, Victor Know stated, "The NPS has typically used professional sharp shooters to cull whitetail deer in parks in the eastern United States, including at Rock Creek Park in Washington, D.C., and Catoctin Mountain Park in Maryland. Professional sharp shooters were also used at Channel Island National Park in California to cull elk on Santa Rosa Island. In other cases, including Rocky Mountain National Park in Colorado and Theodore Roosevelt National Park in South Dakota, skilled volunteers have been used to cull elk."

What were the total costs to the Park Service for each of these efforts?

Response: It should be noted that the following examples vary greatly in the type of activities that were conducted, in the environments where they took place, and in the means through which they were contracted. Therefore, they should not be seen as representative of how the NPS funds or conducts culling operations across the National Park System.

Catoctin Mountain Park: NPS used USDA/Wildlife Service (WS) as the contractor. The total cost (includes the contract and costs to administer the program) for the past 6 years (2010-2015) has been approximately \$571,000 (~\$525/deer).

Rock Creek Park: NPS used USDA/WS as the contractor. The total cost for the past 3 years (2013-2015) has been approximately \$52,500 (~\$290/deer). Rock Creek Park is located wholly within Washington, D.C., and is surrounded by densely populated urban areas.

Channel Islands National Park: The situation at Channel Islands differs from the above examples because it was not a culling operation to reduce populations, but a total elimination of non-native ungulates. These types of operations tend to be more expensive as the costs go up as the populations go down. In addition, the logistics of conducting this program on an island also raised costs significantly. NPS used a non-profit organization as the contractor at a cost of approximately \$519,000 (~\$1,000/animal).

Rocky Mountain National Park and Theodore Roosevelt National Park: In these parks, skilled volunteers were used to cull the elk herds. In Rocky Mountain National Park, 52 elk were removed from 2009-2011 at a cost of approximately \$4,700/elk. In Theodore Roosevelt National Park, 868 elk were removed from 2010-2011 at a cost of approximately \$1,450/elk.

27. How many carcasses were left within the Park for each of these efforts?

Response: During the elk culling operations at Rocky Mountain and Theodore Roosevelt National Parks, over 98% of the animals culled were removed from the field and donated. All of

these operations utilized nonlead ammunition, so the NPS could donate the meat. Over 95% of the animals at Rock Creek Park and Catoctin Mountain Park were removed from the field and donated. At Channel Islands National Park, animals culled in the first phase of the operation were removed and donated; however, due to lack of interest in the remaining carcasses and the cost and logistics associated with removing them from the islands, most of the animals from the second phase were left in the field for eagle and other scavengers to feed upon.

28. Last time you were before the Committee you were answering questions about your Department's flawed report on EPA's mine spill. At that time I asked you about Good Samaritan cleanups as you failed to say anything substantive about Good Sam in your testimony. Shockingly, you told me you weren't familiar with Good Samaritan cleanups. Did you take some time after that hearing to familiarize yourself with Good Samaritan cleanups?

Response: The Department stands by the Bureau of Reclamation's technical review and assessment of the factors that led to the incident. The incident highlights the significant and costly problem of abandoned mine lands, which are a threat on private, state, and federal lands. As mentioned in the Department's statement and discussed at the hearing, we stand ready to work with the Committee and Congress to address this issue in a meaningful way.

29. Do you think today that Good Samaritan cleanups should be an important part of the solution for cleaning up old abandoned mines?

Response: Addressing the reclamation and remediation of abandoned hardrock mine lands is a costly problem and one that requires a long-term funding source. To better address the hardrock abandoned mine land problem and to ensure that an equitable share of the costs of reclamation of these abandoned mine lands (AML) sites are not solely borne by the taxpayer, the Administration has proposed legislation that would hold the hardrock mining industry responsible for the remediation of abandoned hardrock mines, just as the coal industry is responsible for remediating abandoned coal sites. The proposal would levy an AML fee on uranium and metallic mines on both public and private lands, and the receipts would be split between federal and non-federal lands. The proposed hardrock AML fee and reclamation program will operate in parallel with the existing coal AML reclamation program as part of a larger effort to ensure the most dangerous abandoned coal and hardrock AML sites are addressed by the responsible industries. The Department stands ready to work with the Committee and Congress to take meaningful actions to address this issue, including consideration of authority to carry out Good Samaritan activities on public lands.

- 30. Your budget request asks for \$195 million for new federal land acquisition. The Department of Interior and the multiple agencies within can't even manage the lands they currently own. Just last March, the Park Service said it has an estimated \$11.5 billion maintenance backlog. Only 17 percent of land is privately held in Arizona and it's even worse in Nevada. The federal government already owns more than 650 million acres.**
- 31. The Congressional Research Service has informed my office that they could only find one BLM report from 1997 entitled "Lands Potentially Available for Disposal." And that report was authored because of direction from Congress. How much land does DOI currently own that is potentially available for disposal?**

Response to 30 and 31: Congress has long recognized the national interest in preserving and conserving the public lands for present and future generations of Americans. Although the National Park Service and the U.S. Fish and Wildlife Service do not have land disposal authority, Section 203 of the Federal Land Policy and Management Act allows BLM to identify lands as potentially available for sale through the land use planning process, provided they meet one or more of the following criteria:

- Lands consisting of scattered, isolated tracts that are difficult or uneconomic to manage;
- Lands that were acquired for a specific purpose and are no longer needed for that purpose; and
- Lands that could serve important public objectives, such as community expansion and economic development, which outweigh other public objectives and values that could be served by retaining the land in federal ownership.

BLM oversees the public lands through approximately 160 Resource Management Plans (RMPs). Each RMP is unique and typically identifies lands as potentially available for disposal through sale, exchange, or for conveyance under the Recreation and Public Purposes Act (R&PP) for purposes such as schools, fire stations, and community parks. Lands identified for potential disposal may be available for any or all of these purposes. BLM may only dispose of lands identified for disposal in the appropriate land use plan, unless directed by Congress.

Even when lands are identified for disposal in RMPs, there may be substantial impediments to disposal. The process of identifying these lands as potentially available for disposal typically does not include site-specific identification of impediments to disposal, like the presence of threatened or endangered species, cultural or historic resources, mining claims, mineral leases,

rights-of-way, and grazing permits, or the need for an appraisal to establish market value or a specific survey of the lands. Furthermore, lands identified as potentially available for disposal at one point in time may be found later to be unsuitable because of new circumstances such as oil and gas leasing, the listing of threatened and endangered species, the establishment of rights-of-way, or other encumbrances.

The BLM is making information regarding lands that have been identified as potentially available for disposal more accessible to the public through the recent launch a new page on its website to provide information in one central location.

http://www.blm.gov/wo/st/cn/prog/planning/planning_overview/lands_potentially0.html

32. On November 3, 2015 the president issued a new memorandum on mitigation of resource impacts related to development and permitting. The memorandum instructs the Interior Department and other agencies to issue new regulations emphasizing compensatory mitigation as well as a new standard of a “net benefit or at minimum, no net loss” for resources that are “important, scarce, or sensitive” or possess “irreplaceable character.” The administration has stated that one goal of this policy is consistency across agencies regarding mitigation.

However, officials from the Council on Environmental Quality and the Department of Interior told committee staff during a recent briefing that each agency will define the parameters of terms like “important,” “scarce,” “sensitive,” or “irreplaceable” in each of their respective regulations be allowed to define the terms as they see fit.

Are you concerned that each agency writing its own parameters or definitions could result in inconsistent parameters or definitions? Does the Department’s budget request include an estimate of the additional funds and FTEs that will be required to carry out the directives of the mitigation memorandum?

Response: A main objective of updating mitigation policies is to promote more consistency across and within the Department’s bureaus as to how the steps of the mitigation hierarchy are implemented and in the development of mitigation recommendations and requirements. These documents create consistency in how bureaus implement mitigation in a number of important ways, including the use of a compensatory mitigation goal; a clear and stated preference when selecting between compensatory mitigation providers; use of standardized definitions and terms; and adherence to a consistent set of standards to ensure equivalency among compensatory mitigation providers.

The Department does not intend rigidity in determining what resources require mitigation. The Department’s bureaus are responsible for managing different resources, for different uses, under a range of specific authorities. The use of terms such as “importance,” “scarcity,” “sensitivity,”

or “irreplaceable” are meant as parameters to guide bureaus and offices in making similar decisions about what types resources may require mitigation, not what specific resources should be targeted. Where multiple bureaus and offices have responsibility in managing a particular resource, the use of a landscape-scale approach to planning and permitting allows for more integrated and consistent management, including in the application of mitigation.

As a general matter, additional resources are not required by the Department to specifically carry out the directives of the Presidential Memorandum. The BLM’s 2017 budget request does however include \$641,000 (+4 FTE) to develop a National Mitigation Team.

This team would be located in BLM state offices and at the Washington Office and would provide expertise necessary to support field staff, work with BLM partners to develop local and regional mitigation strategies, develop an all-lands program of work, oversee mitigation funds, interact with mitigation banks and exchanges, and integrate other restoration activities. Absent these funds, the BLM would likely have to curtail other important activities in order to fulfill the commitments made in the Western Solar Plan and the GRSG Conservation Strategy.

33. During the hearing, you answered one of my questions by noting that the designation of National Monuments is “entirely up to the President of the United States,” and that the President has not given you any detailed information about what, if any, areas he may be considering to designate for the rest of the year. You also noted that you have received requests from any number of outside organizations encouraging the designation of specific areas.

Again, you made it clear in your response that the ultimate decision-making authority rests with the President, but have you, your staff, or any representative of any of the agencies you oversee made recommendations to act on any of the National Monument requests you have received from outside organizations to the President, his staff, CEQ or other officials in the Administration?

34. And, if so, what areas have you recommended should be designated as National Monuments, and which did you recommend not be designated?

Response to 33 and 34: The Administration consistently strives to take into account the interests of a wide range of stakeholders both to protect America’s public lands and to provide for economic development in a manner that is consistent with applicable laws and sound public policy. The Department participates in this consultation. Officials from the Department have attended many community meetings across the nation, and have heard from stakeholders interested in protecting the places that they care about. These officials have also heard from stakeholders concerned with the impacts of any such designation.

35. What is the total estimated travel budget for the Department of Interior for fiscal year 2017?

Response: The Department has responsibilities across the nation and travel is necessary to carry out our mission. The Department does not specifically budget for travel separately. However, the Department does monitor travel expenditures closely. In FY 2015, the Department spent \$175 million on travel activities (including relocation costs), which represents less than 1% percent of the total FY 2015 expenditure activity of nearly \$18 billion.

36. How much did the Department spend on total travel expenses in fiscal year 2016?

Response: FY 2016 is not yet complete but is on track for a level consistent with FY 2015 (\$37 million as of 12/31/2015).

37. What is the total estimated budget that the Department of Interior will spend on conferences in fiscal year 2017 and how many conferences does the Department plan to hold this year?

Response: The Department does not specifically budget for conference activity and does not have an estimate for FY 2017.

38. How does this compare to last year?

Response: In FY 2015, the most recent year of completed execution, the Department spent \$16 million (\$16,001,465) on hosting or attending 197 conferences. For FY 2016, which is not yet complete, as of 12/31/15 Department personnel attended 41 conferences totaling \$4.8 Million (\$4,830,239). This includes amounts to be reimbursed to the Department from hosted conferences, so actual expenditures will be less.

39. Specifically, how many conferences did the Department hold in fiscal year 2016 and what were total conference expenditures for fiscal year 2016?

Response: In FY 2015, the most recent year of completed execution, the Department held 87 conferences and spent \$6 million (\$6,072,294).

40. How much money did the Department spend on bonuses for employee personnel in fiscal year 2016?

Response: At the end of FY 2015, the most current year of completed execution, the Department spent \$61.2 million on awards and bonuses; when compared against 63,517 Full Time Equivalents (FTE) used in FY 2015, this averages about \$964 per FTE.

41. How much does the department estimate it will spend in fiscal year 2017?

Response: We do not have estimates at this time for FY 2016 and FY 2017 as amounts will be determined by staffing levels and performance achieved.

42. How much money does the Department plan to spend in fiscal year 2016 on climate change policies?

Response: As part of the Administration's effort to better understand and prepare for the impacts of a changing climate, the budget includes \$156.9 million for basic science related to climate and on-the-ground adaptive management efforts.

Questions from Rep. Grijalva:

43. Secretary Jewell, I am concerned about the National Park Service's deferred maintenance backlog. \$12 billion is an intimidating number. For the nonroads half of the backlog, can you please outline what the total level is for the backlog for the most critical projects, how NPS determines what those projects are, and some examples throughout the country of projects that are most critical awaiting funds to be addressed? If possible, can you provide a full list of the most critical projects throughout the country outlining, at a minimum, the park, the project, and the cost?

Response: The National Park Service's \$11.9 billion maintenance backlog is made up of \$6.2 billion in transportation-related deferred maintenance (DM) and \$5.7 billion in non-transportation DM. That \$5.7 billion consists of 7,186 non-transportation assets which are considered high priority resources. Of those, 4,300 need repairs which have been deferred; the deferred maintenance backlog on these assets is a total cost of \$2.38 billion.

The National Park Service uses the NPS Capital Investment Strategy (CIS) which is consistent with Departmental guidance to prioritize projects. The CIS focuses capital investments on the subset of NPS facilities that represent the highest priority needs with a commitment to long-term maintenance. The CIS helps to accomplish four objectives: protect cultural and natural resources and promote environmental sustainability; provide rewarding visitor experiences; protect health and safety of visitors and employees; and achieve a financially sustainable portfolio of constructed assets.

Two cornerstones of the NPS Asset Management Plan are the Facility Condition Index (FCI) and the Asset Priority Index (API). An industry standard metric, the FCI indicates an NPS asset's condition. It is calculated by dividing a facility's deferred maintenance needs by the same facility's current replacement value. The API is an NPS calculated value that represents an asset's relative mission importance within the park unit's total asset portfolio. Improving or even maintaining the FCI for the entire NPS asset portfolio is difficult given current budgetary constraints. However, the FCI, in conjunction with the API of each asset, provides sufficient detail to prioritize the maintenance efforts and target the most critical assets in the portfolio, allowing the NPS to focus its capital strategically.

The NPS, and all DOI bureaus, use the Departmental scoring method to score construction and maintenance projects, which works in conjunction with the Capital Investment Strategy. This score incorporates four categories: API vs. FCI; Scope of Benefits (SB); Investment Strategy (IS); and Consequences of Failure to Act (CFA).

- API/FCI - Emphasizes projects that involved mission critical assets in unacceptable condition with less emphasis on non-mission critical assets. Weighted at 40%.
- SB - Emphasizes projects that are clearly aligned with DOI, bureau, office and program missions, initiatives, and strategic goals. Weighted at 20%.
- IS - Emphasizes projects that can clearly define a position return on investment, leverage outside interests, or reduce operation and maintenance costs. This element is structured to deemphasize projects that increase DOI operation and maintenance costs. Weighted at 20%.
- CFA - Emphasizes projects that have unacceptable risk levels should the project not be completed. Weighted at 20%.

The top scoring Line Item Construction project in FY 2017 is to replace the roof on the Lincoln Memorial, an extremely high priority asset. Other examples of high priority line item construction projects include rehabilitating the Paradise Inn Annex and connection snow bridge at Mount Rainier NP and completing the project to repair the historic Kennecott Mine structures and utilities at Wrangell-St. Elias NP&Pres in Alaska.

Some of the highest scoring projects on the FY 2017 Repair and Rehabilitation project list include rehabilitating the doors on the visitor center at Tumacacori NM and making, roof repairs at parks including War in the Pacific NHP and Moores Creek NB, trail rehabilitation and improvements at parks such as Great Smoky Mountains NP and Mammoth Cave NP, and water system repairs and improvements at parks including Gateway NRA and Acadia NP.

Other fund sources also contribute to addressing the DM backlog. Recreation fees and cyclic maintenance funding are essential fund sources for keeping those assets in good condition once improvements are made. And investments made in cyclic maintenance funding prevents deferred maintenance and therefore future additions to the backlog.

Questions from Rep. McClintock:

44. Under the Solicitor of the Interior's 2011 M-Opinion, a holder of a right-of-way granted under the General Railroad Act of 1875 may authorize third parties activities within its ROW over public lands without BLM approval if the activity in question furthers, at least in part, a railroad purpose. Contrary to existing law and the controlling M-Opinion, in October 2015, BLM made a determination that found that any use in an 1875 Act ROW will now require federal permitting and environmental review even if the use in question furthers a railroad purpose if the origin of the activity does not derive from a railroad purpose. BLM's erroneous determination will negatively impact the ability of railroads to authorize the use of their respective rights-of-way to third parties for critical infrastructure, such as water pipelines, power lines, and telecommunication lines.

To complicate matters even further, BLM issued a 2014 Instruction Memorandum (IM), purporting to provide guidance on how to implement the 2011 M-Opinion.

The IM indicates that it will be publishing a Federal Register notice formally requesting information about all activities that are located in 1875 Act ROWs. Once it receives the requested information, it will make a determination whether each activity is in the scope of the ROW. Note, It is my understanding that there are currently 3,500 plus individual instances of third-party uses of RR ROW over federal lands.

Under the IM, BLM must also be notified of all proposed new activities located within 1875 Act ROW's and will determine whether they are in the scope of the ROW before the activities may proceed. If BLM determines that the activities are not within the scope of the ROW, the proponent of the activity must receive BLM authorization.

Is this accurate? Will BLM be reviewing all new and existing activities within 1875 Act ROWs to determine whether a BLM ROW is required?

If so, how will BLM staff and pay for such reviews? When will these reviews take place?

Response: The November 2011 Solicitor's M-Opinion (M-37025) partially withdrew a prior 1989 Solicitor's Opinion (M-36964) concerning the scope of a railroad's authority to authorize activities within a railroad right-of-way granted under the Act of March 3, 1875 (1875 Act). Opinion M-37025 concluded that a railroad's authority to undertake or authorize others to undertake activities within an 1875 Act railroad right-of-way is limited to those activities that derive from or further a railroad purpose. The changes articulated in Opinion M-37025 were

driven by the fact that the conclusions in the 1989 Opinion were not consistent with the terms of the 1875 Act, its legislative history, or applicable judicial decisions interpreting the act.

Based on the 2011 Opinion, BLM issued an instruction memorandum (IM) in August 2014 to describe how it will evaluate and authorize new and existing activities within those rights-of-way across BLM-managed public lands, including a process for determining whether such activities derive from or further a railroad purpose. If BLM determines the activity does not derive from or further a railroad purpose a project proponent must receive BLM authorization for the activity. The process outlined in BLM's IM applies to both new and existing facilities.

BLM will use existing staff and appropriations to perform reviews of new and existing activities within 1875 Act railroad rights-of-way. Temporary staff may be added in instances where Master Agreements exist with large customers. In cases where project proponents apply for a BLM authorization, BLM will largely rely on cost recovery fees for processing and monitoring the authorization in accordance with existing regulations. BLM expects any necessary reviews to proceed based on an assessment of each BLM field office's overall workload priorities.

Questions from Rep. Alex Mooney:

45. The Consolidated Appropriations Act of 2016, enacted on December 18, 2015, includes language directing OSM to reengage states in a meaningful manner before finalizing any Stream Protection Rule.

[A] What is your schedule for supplying the states with the information listed in the Appropriations Act?

[B] In a recent budget hearing in the Senate Energy and Natural Resources Committee, Michael Conner, Deputy Secretary of the Interior, said the documents specified in the report language would be ready for the states “in a few weeks.” What is your plan for meeting with states after they have had time to review the information you are required to provide them?

[C] Presumably the states will be raising various concerns with the content of the proposal. How will you address those concerns?

[D] When do you anticipate reopening the comment period so the public is placed on notice of potential changes to the proposal so they can comment on those changes?

Response: OSM began responding to state requests for documents and information on March 2, 2016, and continues to engage with the states on the proposed rule. The Department is committed to meeting with the states as review of comments submitted on the proposed rule moves forward. The Department’s Assistant Secretary for Land and Minerals Management, the Director of OSM, and other OSM officials remain available for engagement and discussion with the states and have continued to meet with representatives of states since the close of the comment period. Department of the Interior and OSM representatives have either met with or held telephone or video conferences with Wyoming on November 20, 2015, and January 8, 2016; Ohio and Maryland on December 2, 2015; Oklahoma on December 3, 2015; Indiana and Pennsylvania on December 10, 2015; Virginia on December 11, 2015; Illinois on December 16, 2015; Utah and Montana on December 17, 2015; Alaska on January 14 and May 18-22, 2016; West Virginia on February 10, 2016; Colorado on April 11-14, 2016; and North Dakota on December 17 and May 2-4, 2016. In addition, OSM held six technical meetings in its regional offices during the month of April, which were attended by state regulatory authorities. There are no plans to reopen the comment period on the proposed rule.

Questions from Rep. Grace F. Napolitano:

46. Many water agencies in the arid west are looking towards recycled water projects as the most cost effective solution to drought management; do you believe we should start to refocus our investments towards recycled water?

[A] What does President Obama's budget do to support recycled water projects?

[B] How can an increase in funding impact the amount of water projects that can be introduced in the drought-stricken west?

[C] Do you have the average cost effectiveness of dam projects versus water recycling projects?

Response: The Department's FY 2017 budget request includes \$21.5 million for the Title XVI program, reflecting the Department's recognition that water reuse is an essential tool in stretching limited water supplies in the West and the need to prioritize limited budget resources. Federal investments in Title XVI projects, including all projects funded since 1992, made available an estimated 369,000 acre-feet of water in 2015. An increase in funding would expedite the completion of authorized recycled water projects; however, it would not lead to an increase in the number of water projects in the West, as Congressional authorization would be necessary to build any additional Title XVI projects.

With regard to a comparison of cost effectiveness, it is difficult to isolate the variables that factor into the wide range of local conditions that affect cost. For example, in the State of California, the California Recycled Water Task Force (2003) estimated that water recycling projects would cost between \$300 and \$1,300 per acre-foot. Cost estimates for potential surface storage alternatives vary extensively by region and specific project design, depending on the cost-share among project beneficiaries; State or federal cost-share component; and the anticipated project uses, such as new water supply, hydropower, flood management and water quality.

47. What does President Obama's budget do to address the ongoing drought in the west? Specifically Southern California?

Response: The President's Climate Action Plan, "Preparing the United States for the Impacts of Climate Change," released in June 2013, highlights drought preparedness as a priority. As part of the Administration's broader drought response, the Department continues a proactive approach by emphasizing mitigation and planning to increase resilience to drought in advance of a crisis.

A few highlights of the Department's budget pertaining to drought include an increase of \$18.4 million in the USGS budget for science to support sustainable water management, nearly

doubling the investment made in 2016. The USGS budget request includes \$3.9 million for USGS to conduct drought science to quantify water availability, better understand how snowmelt factors into the hydrologic cycle, and investigate drought effects on reproduction and survival of species. In addition, \$4 million is requested to develop methods to assess regional and national water use trends during drought periods that will lead to a near real-time assessment of water use during drought.

The budget request for Reclamation emphasizes the need to develop new technologies and disseminate scientific information, including \$5.8 million for the Desalination and Water Purification Research program; \$22.8 million for the Science and Technology program, of which \$8.5 million would fund a technology prize competition focused on next generation advanced water treatment technologies; and \$2 million to support Reclamation's open water initiative to make important water information available to support innovation across the country.

Specifically as it relates to Southern California, Reclamation released a spending plan for the additional \$100 million provided by Congress in FY 2016 for western drought response, which includes \$22.6 million for WaterSMART Grants, Title XVI projects, Drought Response and Comprehensive Drought Planning, and the Cooperative Watershed Management Program. Funding was also directed toward the Lower Colorado River Basin Drought Response Action Plan (\$11.5 million), the Salton Sea Research Project (\$3 million) and the Colorado River Basin System Conservation Pilot Program (\$5 million).

The Department's FY 2017 budget request also includes \$61.5 million for the Department's WaterSMART initiative, with \$23.4 million for WaterSMART Grants, \$5.2 million for the Basin Study Program, \$21.5 million for the Title XVI program, and \$4 million for the Drought Response program.

48. In 2013, American Indians and Alaska Natives had the second highest overall suicide rate at 11.7 per 100,000 (American Foundation for Suicide Prevention). The White House Council on Native American Affairs released its "Blueprint for Reform" which is designed to restructure and redesign the Bureau of Indian Education. Does this redesign include the delivery on-site behavioral health services and inclusion of mental health services in general?

Response: Yes. The Bureau of Indian Education (BIE) reorganization has established a school health advisor position in Washington, DC that will address behavioral and mental health issues in BIE-funded schools. The school health advisor will work with the Associate Deputy Directors (ADDs), school staff, and the Indian Health Service (IHS) and Department of Health and Human Services to establish on the ground programs that address student issues, such as suicide.

Currently, except for the smaller rural schools, BIE schools and dormitories have student support teams and refer students to outside organizations (e.g., Indian Health Service and Substance Abuse and Mental Health Services Administration), if they do not have a behavioral health or mental health employee on staff. When a student is identified as having “suicidal ideation” the school contacts their local health agency, assists with transporting the student to such an agency, contacts parents/guardians, and at the family’s discretion stays apprised of the student’s status. In the case of a student that has attempted suicide, after the student has returned to the school, and if the local health agency provides direction for support services to the school, then the school supplies such services. Unfortunately, due to the Healthcare Insurance Portability and Accountability Act, oftentimes the school is not informed of the needs of the student and, therefore, the support services the student may need when they return to their community are often times not fully met.

The Department recently executed a Memorandum of Understanding (MOU) between the BIE and IHS which allows IHS mental health professionals to meet with students within BIE facilities on the Pine Ridge reservation. These professionals will visit schools on a regular rotation to better serve at-risk youth. The Department is interested in expanding this MOU to all interested tribes.

In addition, since the Fiscal Year 2017 Native Youth Priorities guidance memo was issued in 2015, the White House Council on Native American Affairs and the Office of Management and Budget have been working with agencies to establish metrics around Native youth. As part of this effort, HHS is working to develop Native youth suicide metrics. Identifying these metrics and collecting data are critical to ensure that federal investments in Indian Country are improving the lives of and opportunities for Native youth.

Questions from Rep. Newhouse:

- 49. A recent study by the U.S. Forest Service indicated that there may be significant positive fuel reduction benefits from the responsible harvest of salvage logs after wildfires. Unfortunately because of an increasing wildfire trend, we are likely to see even more blackened forests. Can you discuss the role salvage logging and reforestation could play in better preparing federal, tribal, and private lands for catastrophic wildfires? What benefits does this practice provide, what are your thoughts on moving forward with responsibly planned logging and what steps is Interior taking to ensure the timely salvage logging on federal lands?**

Response: Salvage logging and reforestation are two important tools used by the Department to ensure the recovery and future sustainability of forests impacted by wildfire. Wildfires that burn through untreated, post-fire landscapes can exhibit increased fire intensity compared to treated landscapes. Increased fire intensity can severely impact recovering soils and vegetation. Intense fires also hamper suppression efforts by creating hazardous conditions for firefighters. Salvage logging may be used as a tool to reduce long-term fuel buildup through the removal of dead trees on the landscape. However, in some cases, it is more beneficial to treat the post-fire landscape without salvage logging, leaving the burned trees in place to preserve snag habitat and stabilize watersheds. Responsibly planned salvage logging balances the need for hazardous fuels reduction with the need to maintain valuable wildlife habitat features that are unique to the post-fire landscape.

BLM uses the Forest Ecosystem Health and Recovery Fund to enable a rapid response to identified salvage and reforestation projects after disturbances. This fund is also used for planning and implementing proactive treatments such as timber sales, stewardship contracts, and hazardous fuel reduction projects that increase forest resiliency to wildfires. In 2014 and 2015, BLM used these funds to implement over 12,000 acres of treatments to increase forest resiliency and/or harvest salvage timber, which yielded approximately 139 million board feet of timber valued at \$18 million.

- 50. Western Tribes have asked for \$55 million for post-fire rehabilitation over 5 years, to salvage some value from the fires. However, only 6% of this request is being funded by the Department's Burned Area Recovery program. The Colville Reservation, in particular, did not have enough staff or funding allocated to allow for the quick response necessary to take advantage of value of the dead trees. These fires have cost lives, and destroyed homes. The Tribe lost almost a quarter of its forests—that's almost \$1 Billion of dead trees still standing – and I am deeply concerned that funds for the recovery of the areas that were burned on the Colville Reservation have been insufficient given the enormity of the restoration task ahead.**

The Administration is proposing a substantial increase in the Department of the Interior’s Burned Area Recovery Program—a 17% increase. I assume that increase was proposed because of the shortfall we experienced last year?

Response: The FY 2017 budget request proposes an increase for the Burned Area Rehabilitation program of \$1.5 million above the 2016 enacted budget. Funding is intended to address greater post-fire rehabilitation needs caused by the 2015 and 2016 fire seasons. The additional funds will enable treatments to commence more quickly after damage occurs. This can help reduce project costs, as post-wildfire conditions can degrade, and are therefore more expensive to treat, the longer treatment initiation is delayed.

51. Additionally, I know the Burned Area Recovery program helps communities the first couple years after they experience a wildfire. Would some of that proposed increase be made available to help places that burned in last year’s fires, like the Colville Reservation?

Response: The 2015 fire season created \$55 million dollars of post-wildfire rehabilitation need throughout the Northwest, including the Colville Reservation. Approximately 63% of the total \$55 million dollar request would help the Colville tribe with rehabilitation tasks such as preparing and administering timber salvage operations, growing and planting trees, repairing roads, repairing fire damaged fences, restoring burned wildlife habitat and anadromous fisheries, and controlling noxious weeds that come in after wildfires.

The BIA-Division of Forestry and Wildland Fire Management has been working with the Office of Wildland Fire (OWF) on this issue since the end of the 2015 fire season, and BIA allocates Burned Area Rehabilitation funding it receives from OWF, \$3.6M in FY16, to impacted tribes, including to the Colville Tribe. The FY 2016 post-wildfire recovery funding will support tree seed collection and seedling growing operations. The FY17 budget request also proposes additional funding for tribal firefighting vehicles.

52. The National Indian Forests Resources Management Act (NIFRMA) requires the Secretary to manage Indian forest land with specific management objectives. Do you believe the requested amount fulfills the Department’s trust responsibility for tribal forests?

53. The Department of the Interior is working on a “Risk-Based Wildland Fire Management Model.” Do you believe the model treat’s Tribes fairly and recognizes the fiduciary obligations for protection of the lands held in trust for Indians?

Response to 52 and 53: The National Indian Forest Management Act of 1990 directs the Secretary of the Interior to undertake forest management activities which”...develop, maintain,

and enhance Indian forest land in a perpetually productive state in accordance with the principles of sustained yield.” To fulfill this trust responsibility for tribal forests, the Department ensures that tribal assets are protected and improved. The FY17 budget request for the NIFRMA reflects the priorities of the Department and the BIA, which include the sale of timber and the protection of habitats through thinning and replanting of understocked areas. The Department continues to evaluate the needs and make changes where necessary to improve management effectiveness.

The OWF conducted both formal consultation and informal engagement with Tribes on the risk-based approach, including:

- Formal Consultation October 14, 2014 - January 9, 2015; teleconference on November 14, 2014
- Formal Consultation July 20 - August 3, 2015; field meetings in Albuquerque, NM - July 21, 2015; Spokane, WA - July 23, 2015; Webinar - August 13, 2015
- Informal updates on quarterly calls with Intertribal Timber Council Fire Subcommittee (November 14, December 9 - 2014; February 10, , April 21, September 15, December 8 - 2015)
- Day-long session at National Indian Timber Symposium (June 8, 2015)

Comments from the consultations were summarized and responses to commenting tribes were provided and posted on BIA’s website. Additional background information about Risk-Based Wildland Fire Management was also made available on the same website, which can be accessed here: <https://www.doi.gov/wildlandfire/government-government-consultations>.

The Department remains committed to recognizing tribal sovereignty, promoting tribal self-determination, and fulfilling its federal trust responsibility, and will continue to consult with Tribes as it moves forward, including on development of the Risk-Based Wildland Fire Management Model.

54. The President’s FY2017 Budget does not include any funding for the “wolf-livestock loss demonstration program,” which assists livestock producers in undertaking proactive, non-lethal activities to reduce the risk of livestock loss from predation by wolves, and compensate producers for resulting livestock losses. The program received \$1 million from Congress in the FY2016 Omnibus bill and the grants it provides are critically important to Washington State. Why wasn’t funding provided for this management program in the proposed FY2017 budget?

Response: The goal of the Recovery Program is to minimize or remove the threats that led to a species listing so that it can be delisted or downlisted. In 2013, the U.S. Fish and Wildlife Service determined the gray wolf to be biologically recovered. The continued use of limited

recovery funding on the Wolf Livestock Loss Demonstration Program to manage a recovered species is not a priority. The Service proposes to discontinue funding in FY 2017 for the Wolf Livestock Loss Demonstration Program within the Recovery subactivity because there are other programs that are better suited to deliver this funding and the wolf is biologically recovered.

The 2014 Farm Bill makes the Livestock Indemnity Payments (LIP) a permanent program and provides retroactive authority to cover eligible livestock losses back to Oct. 1, 2011. LIP provides compensation to eligible livestock producers who have suffered livestock death losses in excess of normal mortality due to adverse weather and attacks by animals reintroduced into the wild by the federal government or protected by federal law, including wolves and avian predators. Funding for recovery of listed species is limited and the Service is focused on preventing extinction and improving the status of species through on the ground conservation actions.

55. What statistics and information does the Bureau of Land Management keep on the “back burning” on BLM-administered lands? Can you tell me how many acres are burned on average each year?

Response: Backburns or backfires – as distinguished from prescribed fire – are commonly used tools to establish or reinforce containment lines to enable firefighters to more safely and effectively stop the advance of a rapidly spreading wildfire. Due to the common use of this tool, the BLM does not maintain statistics on the number of acres involved. When used, backburns are done only with consideration to safety, property, resource values, and coordination with others in the area. Backburns are not used when they would endanger lives, livestock, or property.

The BLM does keep statistics on the more general method of controlled or prescribed fires, which are used to meet land management objectives, including wildfire management. BLM has completed an average of approximately 110,000 acres of prescribed fire per year for the past 5 years (2011-2015), as reported in the National Fire Plan Operations Reporting System.

Questions from Rep. Polis:

56. Madam Secretary, I am proud to have introduced and cosponsored amendments and written letters fighting for full and permanent funding of the Land and Water Conservation Fund. As you know, The Land and Water Conservation Fund has had an unparalleled impact on our nation's ability to recognize, protect and preserve its greatest natural treasures. For the past 50 years, the LWCF has been enormously successful in acquiring parcels of land and bodies of water. Not only has this enabled the protection of environmental health and the restoration of critical ecosystems nationally, it has secured recreational opportunities and access for hunters, fishermen, hikers, bikers and skiers nationwide. The LWCF is a smart investment—for every LWCF dollar spent, four dollars of economic value is generated from natural resource goods and services. Can you please speak to the importance of adequate and full funding of LWCF on the lands and waters you oversee, and whether you support a permanent reauthorization?

Response: The Administration proposes full, permanent, and mandatory funding of \$900 million for the Fund's programs beginning in 2018. Mandatory funding will increase the financial certainty needed to build and enhance local and community conservation partnerships and optimize valuable investments by leveraging other federal and non-federal funds. It will enable efficiencies in managing LWCF programs and facilitate a more predictable, transparent, and inclusive process. Mandatory funding will also finally achieve the original intent of the LWCF Act: to use the benefits from the depletion of one natural resource for the protection and conservation of another – our public lands and waters - for the enjoyment and benefit of all Americans, now and in the future.

The LWCF enjoys widespread popularity, with more willing sellers than available funding; however, it is constrained by uncertainty about annual appropriations. Unpredictable funding allocations prevent federal, state, and local partners from engaging in the multi-year planning that large-scale conservation and effective collaboration with local communities need to be successful. These challenges also impact partners who work with bureaus to protect critically important habitat and recreation areas. Chronic uncertainty and underfunding have made it increasingly challenging for local, state and federal managers to use this tool to support vibrant outdoor economies, provide community recreation opportunities, and preserve American history.

57. Outdoor recreation is a vital use of our public lands that helps connect people with nature and results in benefits for the economy, public health, and overall awareness of public lands. Opportunities for outdoor recreation are one of the greatest resources that our public lands offer.

[A] What is the return on investment that the American public gets for funds devoted to recreation-related spending on public lands managed by the Department of the Interior?

Response: In FY 2014, Interior's lands hosted an estimated 423 million visits. The net economic value of a visit to Interior lands varies depending on the activity. For FY 2014, visitation to Interior sites provided an estimated \$24 billion in value added, \$42 billion in economic output, and supported about 375,000 jobs.

[B] Could we be doing more to invest in outdoor recreation?

Response: The Department looks forward to working with Congress on a number of proposals to further invest in outdoor recreation. In 2016, the NPS will celebrate 100 years as the steward of the Nation's most cherished natural and cultural resources. The Administration's proposed National Park Service Centennial Act would provide new sources of funding and strengthen the ability of the National Park Service to manage and operate the national parks and programs that provide so many important natural, cultural, and recreational benefits to the nation.

The Administration has also proposed full, permanent, and mandatory funding of \$900 million for the Land and Water Conservation Fund's programs beginning in 2018. Mandatory funding will increase the financial certainty needed to build and enhance local and community conservation partnerships and optimize valuable investments by leveraging other federal and non-federal funds.

Finally we encourage congress to provide a permanent reauthorization of the Federal Land Recreation Enhancement Act. The authority is scheduled to sunset September 30, 2017. A potential lapse in this authority will detrimentally impact the agencies' ability to support projects that improve visitor safety, experiences, and opportunities.

[C] It is crucial to make sure that all Americans – including diverse populations, underserved communities, and youth – have opportunities to experience nature and to get out on our public lands. What is DOI doing to help connect people, especially diverse and underserved populations, with the outdoors and with our public lands?

Response: America's public lands and waters offer space to get outside and get active, and provide living classrooms with hands-on opportunities to build skills. The Administration launched the Every Kid in a Park Initiative to inspire the next generation to discover all America's public lands and waters have to offer. Starting with the 2015-2016 school year, all fourth grade students and their families are able to receive free admission to all national parks and other federal lands for a full year. Studies have shown that the fourth grade is the opportune

time to impress upon children the importance of our natural resources and outdoor recreation. Now is a crucial time to inspire the next generation of conservationists. The National Park Service budget for 2017 includes \$20 million for Every Kid in a Park to introduce at least one million fourth grade students from elementary schools serving disadvantaged students in urban areas to nearby national parks and provide park programs tailored for young people and their families, especially at high visitation and urban parks.

Further, the NPS, in partnership with the National Park Foundation, has launched a campaign to engage the next generation and new audiences in life-enhancing and sometimes life-changing experiences at national parks. These efforts will draw new visitors, especially millennials and young families, to experience the national parks.

[a] Madam Secretary, the President's budget includes a proposal similar to the bipartisan Wildfire Disaster Funding Act, of which I am a cosponsor. This commonsense legislation would allow us to budget for wildfire suppression the same way we budget for every other natural disaster. Do you believe that restructuring would benefit the Interior Department, and how would the department prioritize funding for programs which would mitigate the cost and severity of future wildfires?

Response: Yes, restructuring the Wildland Fire Management budget to fund a portion of suppression costs through a cap adjustment would benefit the Department of the Interior by better assuring the availability of sufficient suppression funding in even the most severe fire seasons, thereby eliminating or reducing the potential need for reprogramming or transferring funds from other fire program budgets or non-fire accounts to cover suppression costs. If funds are borrowed from other programs within the Wildland Fire Management account in order to pay suppression costs, it can result in the bureaus having fewer resources available for hazardous fuels management and burned area rehabilitation projects, proven efforts for improving overall forest and rangeland health and reducing the risk of catastrophic wildland fires, and helping these areas recover from wildfire damage. Transfers from non-fire programs disrupt work in those programs notwithstanding supplemental appropriations to repay the transferred amount. The Administration's proposed cap adjustment allows for increased investments in priority programs in the 2017 DOI Wildland Fire Management budget, such as Preparedness, Resilient Landscapes, and Burned Area Rehabilitation, which will mitigate the cost and severity of future wildfires.

58. Madam Secretary, the agency is in charge of monitoring, inspecting and enforcing oil and gas safety standards on public lands. Reports have recently shown that the Department has not kept up with the pace necessary to ensure that public lands are protected from unintended consequences. What is the agency going to do to improve in this area?

Response: The BLM's FY 2017 budget request reflects the need to modernize BLM's oil and gas program to keep pace with development, technological advances, and evolving industry standards. The request includes \$13.1 million to implement and administer recently promulgated and pending updates to BLM's rules governing onshore oil and gas production activities. These regulatory updates ensure that BLM's rules, which have not received a comprehensive update in over 25 years, reflect modern drilling technologies, practices, and standards.

With respect to inspection and enforcement activities, the FY 2017 budget request reiterates requests made in prior years to establish a new fee schedule to fund inspection and enforcement activities. The BLM's fee proposal is analogous to authority provided by Congress in the offshore oil and gas context. The funds such a fee generates would offset proposed reductions in appropriated funding.

Finally, in order to increase efficiency and transparency of the leasing and permitting process, the BLM is working to automate many leasing functions through the development of the National Fluids Lease Sale System. It is also working to deploy updates to its Application for Permit to Drill processing system.

59. In an effort to reduce barriers for youth access, costs and regulatory requirements for many outfitters serving families have increased. For example, the latest National Park Service operating plan requirements for Dinosaur Monument require outfitters offering whitewater rafting trips to "to ensure a safe and risk-free employee and client environment." (Exhibit B, Operating Plan page 15). Concessioners are also required to collect medical and prescription drug information on their guests. While this may sound good, absolute standards such as the requirement to "ensure a safe and risk-free employee and client environment" is not feasible or possible on adventure trips in the backcountry. One of major insurance providers believes such a requirement could create unnecessary liability for the concessioner and result in higher insurance premiums. Will you apply similar standards to groups serving youth or will such standards be made more reasonable for all operating guiding and outfitting services on our public lands, and will there be an acknowledgement that the commercial groups are often important employers in gateway communities, providing safe and memorable experiences for Americans and international tourists in America's Great Outdoors?

Response: The National Park Service appreciates the important role guide and outfitters play in providing park visitors the ability to experience adventure in our parks as well as the key role these operators play in local communities. The NPS is actively engaged with the guide and outfitter community to share information and address industry concerns as they arise.

For example, representatives of the NPS attend and participate in industry meetings including the annual America Outdoors Conference and the Wilderness Risk Management Conference and are represented on the Federal Interagency Council on Outdoor Recreation. Both of the issues you raised were identified through this collaboration and the NPS has already begun to take action on each.

The NPS recognizes the inherent risk associated with backcountry activities such as whitewater rafting and that it is not reasonable to expect concessioners “to ensure a safe and risk-free employee and client environment.”

The NPS is working with the Park to amend the Operating Plan for Dinosaur National Monument. The Operating Plan will be revised to state that the “Concessioner will develop and implement a Risk Management plan to comply with all applicable laws and to help provide for a safe and healthy environment for employees and visitors to the extent reasonably possible”. This change will also be reflected in a template Operating Plan currently under development for use by all parks.

The NPS is currently working with NPS concession management and NPS emergency response personnel as well as NPS concession guide and outfitters, to evaluate current contractual requirements and industry practices associated with visitor medical screening and collection of visitor medical and medication data for backcountry activities. Through this effort we are assessing how to facilitate a safe experience for visitors and provide the ability to effectively respond to visitor medical emergencies, while protecting the privacy of visitors and avoiding inappropriate liability for concessioners. The NPS will revise the Dinosaur National Monument Operating Plan regarding requirements for collection of medical information as appropriate based on the findings of this assessment.

Questions from Rep. Thompson:

60. I am interested in learning more about the status of the cleanup of the Folcroft Landfill, a Pennsylvania property on the Superfund National Priorities List which is owned by the US Department of Interior. According to the CERCLIS database, this is the only Superfund site in the state of Pennsylvania that is owned by the US Department of Interior.

Interior purchased this property in 1980, and it became part of the John Heinz National Wildlife Refuge under legislative authority provided by Congress. Congress initially provided \$11 million for the development of the Refuge, and then increased funding to \$19.5 million for expansion, including acquisition of the Folcroft property (PL 96-315). The legislative history of the Refuge indicates that Congress intended for some of the authorized funds to be directed toward investigation of the Folcroft Landfill (PL 99-191). The record also indicates that DOI understood that by acquiring the property, the Agency was accepting an obligation to study and develop a remedy for pollution in the Folcroft Landfill. I am concerned that now almost forty years after acquisition of this property, little progress has been made. I believe it is important for us to understand what happened here, and I would appreciate your response to the following questions:

[A] DOI testified before Congress that when the Folcroft property was acquired from a private property owner, the Landfill had been properly closed and capped, and no pollution was emanating from the property. What procedures and measures were put in place by DOI after the purchase of the property to preserve and maintain the cap and prevent erosion? What funds were spent on this effort? What reports were prepared by DOI for the period 1980-2015 documenting these procedures and measures?

[B] The statute incorporating the Folcroft property into the Refuge (PL 96-315) directed FWS to work with EPA to "investigate potential environmental health hazards resulting from the Folcroft Landfill...and to develop alternative recommendations as to how such hazards, if any, might best be addressed in order to protect the refuge and the general public". What investigations were conducted, and what was the cost of these investigations? What recommendations were developed based on this investigation? How were these recommendations implemented? What was the cost and timeline to implement these recommendations? What reports were prepared by DOI or EPA to document these investigations?

[C] In 1983, the Folcroft property experienced a fire caused by a FWS vehicle parked on dry brush. Did the fire result in soil or groundwater contamination or otherwise cause damage to the refuge? What measures were taken to address any contamination or damage resulting from the fire? What was the cost and timeline of these measures? What testing was done afterwards to ensure that these efforts were sufficient to prevent the migration of contaminants or damage to the cap? What reports were prepared by FWS documenting the incident, the cause of the incident, the contamination or other damage caused by the incident, and the measures taken to prevent the migration of contaminants and/or to repair the cap?

[D] The Folcroft property was added to the Superfund National Priorities List in 2001. As a property owned by the US Department of Interior, the Folcroft property is subject to special rules and timelines under CERCLA Section 120 governing Superfund remediation on federal facilities. Section 120 requires a Remedial Investigation/Feasibility Study to commence within six months of listing. Was this deadline met and why/why not? Section 120 also calls for a timetable and deadlines for expeditious completion of the Remedial Investigation to be published. Was this information published? Is the Remedial Investigation being completed consistent with this timetable? What role has DOI played in the effort to complete the Remedial Investigation and Feasibility Study in an expeditious manner? What interaction does DOI have with EPA on this matter? What interaction does DOI have with the group of private parties that have been completing the Remedial Investigation and Feasibility Study?

[E] What do you estimate it will cost to complete remediation of the Folcroft site? How is this liability reported on the DOI's financial reports? What appropriations have DOI requested for the Remedial Investigation and Feasibility Study and/or the Remedial Action?

Response: Much of the information you are seeking relative to the Folcroft Landfill dates back over 35 years and would require considerable time to compile. Additionally, the EPA is the lead federal agency for the clean-up of the Folcroft Landfill under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and therefore, best suited to respond to many of your specific questions. In an effort to provide you with a timely response, clean-up activities at the property and the role of the FWS in this process are summarized here.

The Department, through the FWS, has been working closely with the EPA to manage the Folcroft Landfill since Congress added the property to the National Wildlife Refuge System in

1980. Congress directed EPA to investigate and make recommendations regarding any environmental health hazards caused by the Folcroft landfill.

EPA has a legal agreement with a group of potentially responsible parties (PRPs) requiring them to perform the Remedial Investigation and Feasibility Study (RI/FS) to determine the nature and extent of contamination. An updated RI is currently being developed. The role of the FWS in this process is limited to project oversight and land management activities, such as reviewing and commenting on project submittals and evaluating the appropriateness and effectiveness of recommendations made for any potential remedial actions.

As per the MOU, the FWS employs a full-time Project Coordinator with responsibilities at the Folcroft Landfill and three other sites in New Jersey. This employee is the FWS's liaison with the EPA on all aspects of the CERCLA process.

The Department and the FWS are committed to working with the EPA through the CERCLA process to implement a remedy that will clean-up the site and make it suitable for fish, wildlife and public use.

Questions from Rep. Robert Wittman:

61. As the Department begins to develop a final offshore leasing program for the 2017-2022 Five Year Plan, will you commit to taking into consideration the continued broad bipartisan support for offshore energy production in the Atlantic Ocean?

Response: The Department is committed to considering all comments from stakeholders in the development of a Five Year Oil and Gas Leasing Program. It was after an extensive public input process that the sale proposed in the Draft Proposed Program in the Mid- and South Atlantic area was removed from the Proposed Program. Many factors were considered in the decision to remove this sale from the 2017-2022 Program including significant potential conflicts with other ocean uses such as the Department of Defense and commercial interests; current market dynamics; national energy needs; and opposition from many coastal communities. As noted at the time the Proposed Program was announced on March 15th of this year, “We heard from many corners that now is not the time to offer oil and gas leasing off the Atlantic coast. When you factor in conflicts with national defense, economic activities such as fishing and tourism, and opposition from many local communities, it simply doesn’t make sense to move forward with any lease sales in the coming five years.” Specific to the 2017 – 2022 Program, proposed leasing in the Atlantic will not be included in the Final Program since it was removed from the Proposed Program.

62. I asked last year when do you expect permits to be granted so seismic acquisition can begin and so far I do not believe a permit has been issued? I continue to believe that it is paramount that we get this new information and premature for the Department of Interior to make any decisions until new information has been received. Once permits are granted, how will this new resource information feed into the Five Year leasing process?

Response: BOEM has worked extensively with the permit applicants, the public, states and other federal agencies as it reviews the proposed Atlantic seismic permits. Prior to BOEM making a final decision on the seismic permits, which last one year, companies first need to receive individual Incidental Harassment Authorizations from the National Marine Fisheries Service (NMFS). Once a permittee receives the necessary approvals from NMFS, BOEM will complete its review of the permits.

The seismic permit and Five Year Program processes are separate. New data and information will help in the analysis of resource estimates and geological characteristics, both of which are considered as part of the eight factors specified in Section 18 of the Outer Continental Shelf

Lands Act. This information is important to BOEM to inform potential leasing decisions during the development of any Five Year Oil and Gas Leasing Program, now and in the future.

Questions from Rep. Ryan Zinke:

63. Secretary Jewell, you allowed the Royalty Policy Committee's charter to lapse before embarking on changes to coal oil and gas royalty and leasing policy, thereby ensuring the states had no input to policy. Do you believe it was appropriate to make such changes without input from the States and Tribes affected? Will you reestablish the Committee as previously constituted? If not, why?

Response: Through the State and Tribal Royalty Audit Committee and the U.S. Extractive Industries Transparency Initiative Advisory Committee, a FACA committee chartered in 2014, the Department engages with states and Tribes and receives input on mineral revenue collections; compliance work; and the Department's royalty management activities, policies, and procedures. Participants in these committees include states and tribes, the extractive industry, civil society organizations, government agencies, and Tribal government and individual Indian mineral owner representatives. Coordination through these entities helps the Department to ensure the full and fair return to the American people for the utilization of public resources.

64. I would again like to address the question of your assertion that reform of the coal leasing program is required. Last year, at about this same time, you told me that changes to royalty valuation policy, to coal royalties, and to coal leasing were called for by the GAO and IG reports. My staff and I met with GAO shortly thereafter; when I asked if the GAO Report you referenced made such recommendations, he said no. Madame Secretary, one of you is being dishonest. Are you calling the Comptroller General of the United States a liar or would you like to rephrase your remarks about the GAO Report?

Response: As indicated in the recently-issued Secretarial Order 3338 and BLM's Notice of Intent, numerous parties have voiced concerns about the federal coal program, including the Government Accountability Office, the Department's Inspector General, Members of Congress, and interested stakeholders. The concerns raised by GAO (*Coal Leasing: BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide More Public Information*, GAO 14-140 (Dec. 2013)) and the OIG (*Coal Management Program, U.S. Department of the Interior*, Report No. CR-EV-BLM-0001-2012 (June 2013)) center on whether taxpayers are receiving fair market value from the sale of federal coal. This issue, along with concern that the coal program conflicts with the Administration's climate policy and national climate goals and concerns about the structure of the program in light of current market conditions, was one of the aspects of the coal program that received the most attention during public listening sessions carried out across the country, including in Billings, Montana. As a result, the Department is carrying out this review, through preparation of a Programmatic Environmental Impact Statement, which will identify, evaluate, and potentially recommend reforms to the coal program.

65. You have referred several times to the Headwaters Study as a justification for your actions against the federal coal leasing program. This study was done by an NGO in my state funded almost entirely by environmental groups and foundations with close ties to the Democratic Party. Nevertheless, you have referenced this study as a basis for your actions. Are you then aware of the Energy Ventures Analysis peer review of the Headwaters Study, which concluded the study was based on flawed data and designed to reach predetermined conclusions? It has been sent to you by several people, entered into the official record of this Committee by Representative Lamborn, and filed by several parties in official comments to the "listening sessions" on the federal coal leasing program. Are familiar with the Energy Ventures Analysis peer review? If so, can you please expand upon the conclusions that were reached that discredit the Headwaters Study?

Response: The review of the coal program is not based solely on any one document and is being carried out instead following concerns about the federal coal program voiced by a number of parties, including the Government Accountability Office, the Department's Inspector General, Members of Congress, and interested stakeholders.

66. Madame Secretary, none of the reports or studies that you have mentioned to this Committee demand the changes to the federal coal leasing program that you have initiated. Can you point to any credible reports or studies not initiated by private special interest groups or organizations tied directly to the Democratic Party that justify the changes to royalty valuations that you have pursued? Please provide exact information about these reports and studies.

Response: As indicated in response to a previous question, the programmatic review will identify, evaluate, and potentially recommend reforms to the coal program. A programmatic review of the coal program has not been undertaken in more than 30 years. As articulated in Secretarial Order 3338 and BLM's Notice of Intent, numerous parties have voiced concerns about the federal coal program, including the Government Accountability Office, the Department's Inspector General, Members of Congress, and interested stakeholders. The concerns raised by GAO (*Coal Leasing: BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide More Public Information*, GAO 14-140 (Dec. 2013)) and the OIG (*Coal Management Program, U.S. Department of the Interior*, Report No. CR-EV-BLM-0001-2012 (June 2013)) center on whether taxpayers are receiving fair market value from the sale of federal coal. This issue, along with concern that the coal program conflicts with the Administration's climate policy and national climate goals and concerns about the structure of the program in light of current market conditions, was one of the aspects of the coal program that received the most attention during public listening sessions.

67. In your time as Secretary, the agency has initiated several activities that impact coal, oil, and gas produced on federal lands – activities which provide significant revenues and fair returns to the federal treasury and to states like my state of Montana. Specifically, the Agency is considering changes to the Federal Coal Leasing Program with regard to valuation and royalty rates, and now the Agency has instituted a moratorium on federal coal leases while a Programmatic Environmental Impact Statement and comprehensive review, to analyze fiscal and environmental considerations, is completed in approximately three years. You told Senator Daines from Montana that you could not commit to a three year timeline because you'll only be in office for another 11 months. I'd say that your actions, specifically as they relate to the moratorium and PEIS are irresponsible and shortsighted. You put a three year moratorium in place, subject to the completion of a PEIS that could take more than three years when you'll only be in office for less than a third of that time. To me, that's like a pilot parachuting out of a plane after takeoff and telling the passengers they should be fine. You mentioned that you hoped to complete an interim report by the time you are out of office. Will you commit that you will brief this Committee on the contents of the interim report once it is ready?

Response: The Department is happy to provide the Committee with a briefing on appropriate information after release of the interim report.

68. Why after having communicated that the PEIS and moratorium on federal coal leasing would take three years did you refuse to commit to that time period in Testimony before the Senate last week? Why can you not commit to the time period that you yourself said was required to complete the study?

Response: The Department expects the review to take approximately three years to complete, but it is impossible to know what factors or how a subsequent Administration may impact the timing of that review. Regardless, the Department expects to release an interim report by the end of this year containing conclusions from the public scoping sessions and other, additional, information.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240



JUN - 1 2016

The Honorable Bill Cassidy
Chairman
Subcommittee on National Parks
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Cassidy:

Enclosed are responses to follow-up questions from the legislative hearing on March 17, 2016, before the Senate Subcommittee on National Parks. These responses were prepared by the National Park Service.

Thank you for giving us the opportunity to respond to you on these matters.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and
Legislative Affairs

cc: The Honorable Martin Heinrich, Ranking Minority Member
Subcommittee on National Parks

Enclosure

**U.S. Senate Committee on Energy and Natural Resources
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Hearing on March 17, 2016 regarding Pending Legislation
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Questions from Senator Martin Heinrich

Questions: Do existing national service programs like AmeriCorps have exemptions from prevailing wage, minimum wage, and child labor laws?

If so, are they identical to the provision in S. 1993?

If not, how do they differ?

Answer: The National Park Service (NPS) participates in national service programs under the American Conservation and Youth Service Corps (AmeriCorps), the Public Lands Corps (PLC), the Volunteers in Service to America (VISTA), and the Youth Conservation Corps (YCC). These programs are all exempt from prevailing wage and minimum wage laws, but not child labor laws.

Federal youth programs whose authorizing statutes empower the Secretary of the Interior to determine compensation of their participants are not covered by Davis-Bacon labor (prevailing wage) standards. Section 4 of the Davis-Bacon Act, 40 U.S.C. § 3146, provides that the statute “does not supersede or impair any authority otherwise granted by federal law to provide for the establishment of specific wage rates.” The authorizing statutes for the Youth Conservation Corps (16 U.S.C 1703(a)(3)) and the Public Lands Corps (16 U.S.C. 1726) specifically require the Secretaries of the Interior and Agriculture to set the rates of pay or living allowances for the Corps’ participants. The statutory authority for other youth programs, such as the AmeriCorps (42 U.S.C. 126551*f*) and VISTA (42 U.S.C. 4995), specify the living allowances and other benefits that must be provided. Because the programs are designed as a work and learn experience, the participants are not considered employees for purposes of pay and hours and are not entitled to wages from the program that meet the requirements of the Fair Labor Standards Act (minimum wage).

AmeriCorps and VISTA (42 U.S.C 12591*a*), and the PLC (16 U.S.C 1723(b)), comply with child labor laws by requiring a minimum age of 16 for year-round programs and either a high school diploma equivalent or a commitment to seek to finish high school. The child labor laws allow a greater flexibility in hours and age when school is out so all of the above programs and YCC allow youth as young as 14 to participate (16 U.S.C. 1702(a)) in summer programs.

S. 1993 requires the participating organization to provide compensation to each 21st Century Service Corps (21CSC) participant that shall include one or more of the following: a wage, a stipend, a living allowance, an educational credit that may be applied towards a program of postsecondary education at a participating

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institution of higher education that agrees to award such credit for participation in a 21CSC project. The bill provides an explicit exclusion from the Davis-Bacon prevailing wage law, and it references the National and Community Service Act to categorize participants as other than federal employees, so that 21CSC participants would be treated identically to AmeriCorps and VISTA participants in terms of being exempt from the minimum wage law. And, although the heading of section 6(c) suggests there is an exemption in the bill to child labor laws, there is no exemption.

In summary, in terms of rules for compensation standards and child labor standards, there is no practical difference between the way participants are treated under existing national service programs that the NPS participates in and the way they would be treated under S. 1993.

Questions from Senator Barrasso

Question 1: Does the National Park Service take into account all future management costs when considering supporting a new addition to the National Park System?

Answer: Yes, future management costs are considered as part of the NPS evaluation of potential new units to the National Park System. When the NPS conducts congressionally authorized special resource studies, four criteria are evaluated: national significance, suitability, feasibility, and the need for direct NPS management or administration instead of alternative protection by other agencies or the private sector. If a site is found to be nationally significant and suitable, the NPS must then evaluate feasibility. Feasibility criterion is defined in section 1.3.3 of NPS Management Policies as:

To be feasible as a new unit of the national park system, an area must (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries) and (2) be capable of efficient administration by the NPS at a reasonable cost.

The feasibility evaluation also considers the ability of the NPS to undertake new management responsibilities in light of current and projected availability of funding and personnel.

When evaluating feasibility, NPS special studies consider the fiscal impact of adding new units and/or management responsibilities to the national park system. The fiscal impact may include costs for operations, maintenance of existing

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facilities, resource protection, and interpretation; the construction of necessary new facilities and development of associated infrastructure; and the repair or rehabilitation of existing facilities within a potential park boundary area. As an agency, the NPS recognizes that newly authorized areas have to compete with more than 400 existing units of the national park system and other NPS responsibilities, all dealing with substantial funding needs.

Question 2: Please describe the process the agency takes when determining whether it is a financially responsible decision support an addition to the National Park Service portfolio.

Answer: If all four new unit criteria are met, study teams develop management alternatives that include cost estimates for facility acquisition and or construction, facility operations, and maintenance costs over the life of the potential unit and its assets. A Total Cost of Facility Ownership (TCFO) approach has been developed to analyze the life cycle of facilities costs—from planning and design, to long-term maintenance and disposition.

A TCFO analysis provides a comprehensive projection of facilities costs over a 50-year horizon, and it contributes to projections of annual operating costs and one-time facilities costs. For instance, annualized preventative maintenance, facility operations, and unscheduled maintenance costs can be produced using a TCFO calculator tool and then built into base-funded annual operating costs.

The TCFO approach informs the consideration of life cycle costs in the evaluation of feasibility. Should extreme and/or unanticipated costs be uncovered through the TCFO analysis, the feasibility analysis is reassessed and the revision of findings considered. This is often also a prompt for a close look at the boundary configuration options, to determine if only the most critical resources have been included in the potential boundary and whether feasibility would be enhanced by a modified boundary.

Question 3: Has the agency ever opposed an addition to the National Park System for financial reasons?

Answer: Yes, some special resource studies have come to a negative finding based on financial reasons within feasibility analysis. One example of a study with a negative finding based on feasibility from 2015 is the Battle of Camden and Historic Camden Special Resource Study. The costs associated with acquisition, development, restoration, and operation of these sites in South Carolina led to the determination that addition to the National Park System is not feasible.

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Overall, about two-thirds of authorized studies in recent years have come to a negative conclusion. Of these studies, many came to a negative finding based on evaluation of national significance and/or suitability criteria prior to the feasibility analysis. The NPS does not track how many studies conclude with negative findings based specifically on feasibility criteria, but this has occurred in several cases.

Question 4: How many feasibility studies has the Park Service completed since 2010 and how many of those resulted in support for additions to the Park System?

Answer: Thirty-five authorized studies have been completed since January 2010. Twelve of these studies had a positive finding for potential new national park units, additions to existing units, National Heritage Areas, and Wild and Scenic Rivers, or National Trails.

As a clarifying note, studies consist of primarily two types: congressionally authorized studies, which include special resource studies for new units (also called new area studies) as well as studies for National Heritage Areas, Wild and Scenic Rivers, and National Trails; and reconnaissance surveys. A reconnaissance survey is either requested by a member of Congress or by the Secretary of the Interior, and is a study effort of limited scope that the NPS is authorized to conduct without prior Congressional approval and without public involvement. By law, reconnaissance surveys are limited to a cost of less than \$25,000. Reconnaissance surveys are used to present preliminary assessments of the eligibility of a site or resource for inclusion in the national park system, or may focus on one of the new unit criteria (for instance, a review of feasibility).

Question 5: In your testimony on Senator Boxer's bill to allow for a land donation to add to the John Muir National Historic Site, you indicated that some lands added to the Site include critical habitat for the whipsnake, a species listed as threatened under the Endangered Species Act. You went on to say that the acquired land would be open to new public, recreational uses but assured this Committee that the habitat would be protected. What analysis has the agency undertaken to assess critical habitat and what sort of activities does the agency feel are compatible with species conservation? Has the Fish and Wildlife Service been involved in the assessment?

Answer: A detailed habitat management plan for the Alameda whipsnake on this 44-acre parcel has been prepared by the John Muir Land Trust, the current owners of the property. This plan includes a detailed analysis and indicates that recreational use (hiking, horseback riding and biking) on current roads and trails will not have an impact on the species or the critical habitat. The Trust's plan is consistent with the current recreational activities allowed in the park, which is also part of the critical habitat for the Alameda whipsnake. The plan was

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completed in consultation with the California Department of Fish and Wildlife, and is consistent with the current draft recovery plan prepared by the US Fish and Wildlife Service.

Questions from Senator Elizabeth Warren

Question 1: As you know, March is Women's History Month, and the National Park Service plays a critical role in recognizing the occasion and telling the story of women in America. Senator Barbara Mikulski's S. 1975, the Sewall-Belmont House Act of 2015, would establish the Sewall-Belmont House and Museum as a National Historic Site. As the headquarters of the National Woman's Party, the Sewall-Belmont House is a key location in the civil rights history of this country, and I am a cosponsor of Senator Mikulski's legislation. Could you describe how the Sewall-Belmont House Act could enhance the Park Service's celebration of Women's History Month and other NPS initiatives to recognize women's history?

Answer: On April 11, 2016, President Obama designated the Sewell-Belmont House as the Belmont-Paul Women's Equality National Monument, making the site a unit of the National Park System. With this designation, the intention of S. 1975 has been fulfilled.

Inclusion of the house as a NPS unit fills identified gaps in the representation of women's history in the national park system. Where Seneca Falls, a NPS site, marks the beginning of the women's rights movement in the United States, the Belmont-Paul Women's Equality National Monument represents the continued story to secure women's equal rights and protections in this nation. Under the leadership of Alice Paul, the works of the National Woman's Party (NWP) led to the passage of the 19th Amendment giving women the right to vote. The NWP remained a critical political force for women's rights throughout the 20th century with both the NWP and the National Organization for Women advocating for the Equal Rights Amendment, which would constitutionally protect women from discrimination. In 1929, the NWP established their headquarters in the Sewall-Belmont House and used its Washington, D.C. location to help lobby for women's political, social, and economic equality on a national stage.

Inclusion of the site in the National Park System increases the number of women's history units and strengthens the overall interpretation of women's history. The designation supports the NPS goal of including sites representing more diversity. It recognizes an important American story of our continued struggle for equality thereby enhancing our ability to recognize the contributions of the women from Seneca Falls until today. In addition, having an iconic site

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commemorating the struggle for women's rights in a prominent location in the nation's capital offers a wealth of opportunities to recognize this movement. Overall, inclusion supports telling the full story of our nation and provides opportunities for the NPS to share a more complete story of women's history in America for women's history events and initiatives.

Question 2: Beyond the potential Sewall-Belmont House National Historic Site, many units of the National Park System directly relate to the rich history of women in America. As we approach the 2020 centennial of women winning the right to vote nationwide, could you describe how the Park Service is preparing for this important anniversary?

Answer: The NPS launched its Women's History Initiative in 2011 with the goal of furthering the representation of diverse stories within the National Historic Landmarks Program and exploring how the legacy of women can be recognized, preserved, and interpreted for future generations. Since the initiative's inception, six properties that reflect and tell important stories about women's history in America or about the construction of gender roles in American culture have received National Historic Landmark designation. They are:

- Dr. Bob's Home (Dr. Robert and Anne Smith House), Akron, OH (2012)
- Stepping Stones (Bill and Lois Wilson House), Katonah, NY (2012)
- Casa Dra. Concha Meléndez Ramírez, San Juan, PR (2013)
- Harriet Beecher Stowe House, Hartford, CT (2013)
- Perkins Homestead, Newcastle, ME (2014)
- Lydia Pinkham House, Lynn, MA (2014)
- Marjory Stoneman Douglas House, Miami, FL (2015)

In addition to identifying potential NHL designations, the NPS is also using this initiative as an opportunity to improve upon the interpretation of women's history within national parks. The NPS is asking all of its more than 400 sites to include the forgotten and untold stories—those stories include the role of all women in the making of this nation, inclusive of women-of-color and First Nations' women. Women's Rights National Historical Park (NHP), in Seneca Falls, N.Y., is preparing to celebrate 2017, when New York State granted women the right to vote, and the national anniversary in 2020. In New York, legislation has been passed to create a state centennial commission. Noemi Ghazala, Superintendent of the Women's Rights NHP, serves as the NPS liaison to the commission. Regarding a national celebration, Women's Rights NHP is in the early stages of planning. Among the projects being considered are monthly art exhibits by women artists representing the diversity of this nation, educational outreach programs centered on diverse women's roles in the nation, and a special presentation related to the new \$5, \$10, and \$20 bills when their concept designs will be released in 2020. Harriett Tubman will be featured on the \$20 bill and the other two bills will also feature images of important women or significant

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events related to women's roles in our democracy. The addition of women on our currency has sparked a national conversation on the history of women in our nation which the NPS can cultivate further for this historic anniversary.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 07 2016

The Honorable Lisa Murkowski
Chairman
Committee on Energy & Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Murkowski:

Enclosed are responses prepared by the Department of the Interior to questions submitted following the Committee's March 15, 2016, oversight hearing on "The Presidential Memorandum Issued on November 3, 2015 entitled 'Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment.'"

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and Legislative Affairs

Enclosure

cc: The Honorable Maria Cantwell
Ranking Member

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Hearing on March 15, 2016: The Presidential Memorandum Issued on
November 3, 2015 entitled "Mitigating Impacts on Natural Resources
from Development and Encouraging Related Private Investment"
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Questions from Chairman Lisa Murkowski

Question 1: In the hearing, I asked you to what extent do agencies' legal authorities prohibit or modify the application of the principles and mandates outlined in the Presidential Memorandum (Memorandum). You responded that the Memorandum does not supersede any legal authorities, which is what the Memorandum provides. However, recognizing that the Memorandum cannot and does not supersede any legal authorities and that, by its terms, it "shall be implemented consistent with applicable law . . ." please explain whether, and, if so, how, in practice, you anticipate that the Department of the Interior (Department) will change its work in connection with its administration of laws to which it is subject or charged with administering, including the Federal Land Management Policy Act (FLMPA) and the Mining Law of 1872? Please tell me which Department authorities modify or limit the Department's application of the Memorandum, and how specifically those authorities are therefore likely to limit or modify the Department's application of the Memorandum.

Response: The Presidential Memorandum directs DOI and its agencies to implement key principles when applying mitigation. Public lands management by the BLM, under the authority of FLPMA and the Mining Law (and other statutes and regulations, such as the Endangered Species Act and the National Historic Preservation Act), has historically included the application of mitigation. The Presidential Memorandum provides guidance to the BLM by instructing the agency to bring consistency, via the principles identified in the Memorandum, to its application of mitigation. The BLM has limited discretion for decisions with regard to locatable minerals and therefore in considering actions under the Mining Law, the BLM will continue to follow its existing regulations governing mitigation for operations under the Mining Law. See 43 C.F.R. Part 3809.

Question 2: Please provide examples of mitigation policies that are currently unclear or are implemented inconsistently by or within the agencies.

Response: Historically, the BLM has taken a piecemeal approach to mitigation, with policy written and applied program-by-program, office-by-office. This approach led to mitigation being applied differently across the boundaries for Field Offices and State Offices, leading to challenging and confusing permitting process for industry. This approach also led to impacts to the same resource being considered differently, depending on which type of public land use was causing the impacts.

The U.S. Fish and Wildlife Service's (Service) existing Mitigation Policy (January 23, 1981; 46 FR 7644-7663) establishes policy for Service recommendations on mitigating the adverse impacts of land and water developments on fish, wildlife, and their habitats. It was written to help assure consistent and effective recommendations by outlining policy for the levels of mitigation needed and the various methods for accomplishing

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mitigation. It has allowed Federal action agencies and private developers to anticipate Service recommendations and plan for mitigation measures early, thus avoiding delays and assuring equal consideration of fish and wildlife resources with other project features and purposes. On March 8, 2016, the Service proposed to revise the Mitigation Policy (81 FR 12380-12403). The revisions are an opportunity to reflect changes since 1981, including accelerating loss of habitat, effects of climate change and the application of a landscape-scale approach. The revised policy is intended to be a single, umbrella policy under which more detailed Service documents covering specific activities may be issued in the future.

The draft revised Mitigation Policy is consistent with the:

- Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015);
- Secretarial Order 3330 - "Improving Mitigation Policies and Practices of the Department of the Interior" (October 31, 2013); and the
- Departmental Manual Chapter on Implementing Mitigation at the Landscape-scale (October 23, 2015).

Adopting the common principles from these documents within the draft revised Mitigation Policy will foster clarity and consistency among the multiple federal agencies engaged in mitigation processes.

Question 3: For each of the terms listed below, please state whether the Department has or has not adopted a formal definition. (I understood your testimony to be that the Department does not have a formal definition for some of the following terms.) In the case of terms for which a formal definition has been adopted, please provide the definition with a citation. For terms that do not have formal definitions, please provide examples of how the term is applied in practice and a description of what the term means as a practical matter.

- a. Irreplaceable natural resource;

Response: Although the Department has not adopted a formal definition of this term, it is used in the Fish and Wildlife Service's mitigation policy that has been in effect since 1981. Examples of habitats that the Service has deemed to be irreplaceable include Colorado peatlands (or fens) and Hawaiian coral reefs that are old, structurally complex, and species-rich. These habitats are considered irreplaceable for similar reasons. Peat accumulates in most Colorado peatlands at a rate of less than one foot per thousand years and thus such habitats cannot be restored to their former condition except on a scale of centuries or millennia. For similar reasons, structurally complex, species-rich coral reefs in Hawaii cannot, as a practical matter, be replaced or restored on a time scale meaningful to people

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living today. In short, the practice of the Service has not needed a formal definition because it has been consistent with ordinary dictionary definitions, in which to "replace" is to "restore to a former place, position, or condition," and thus an "irreplaceable" resource is one that cannot practically be restored to a former place, position, or condition.

b. Landscape-scale;

Response: The definition for *landscape* can be found in the Departmental Manual Chapter on Implementing Mitigation at the Landscape-scale (600 DM 6). *"For the purposes of this policy and related Departmental efforts, a "landscape" is as an area encompassing an interacting mosaic of ecosystems and human systems characterized by a set of common management concerns. The landscape is not defined by the size of the area, but rather by the interacting elements that are relevant and meaningful in a management context. The term "landscape" is not exclusive of areas described in terms of aquatic conditions, such as watersheds, which may represent the appropriate landscape-scale."*

c. Watershed-scale;

Response: Within the mitigation context, the Department does not have a definition of *watershed-scale*, however, please find a reference to watersheds in the definition of landscapes above.

d. Important resources;

Response: Congress referred in the Federal Land Policy and Management Act to "important" fish and wildlife resources, but did not define the term. In contrast, the FWS's recently released Proposed Revisions to the U.S. Fish and Wildlife Service Mitigation Policy (proposed FWS mitigation policy) explains "importance" in the following term: In the context of resources managed by FWS, *"the relative significance of the affected habitat, compared to other examples of a similar habitat type in the landscape context, to achieving conservation objectives for the evaluation species. Habitats of high importance are irreplaceable or difficult to replace, or are critical to evaluation species by virtue of their role in achieving conservation objectives within the landscape (e.g., sustain core habitat areas, linkages, ecological functions). Areas containing habitats of high importance are generally, but not always, identified in conservation plans addressing resources under Service authorities (e.g., in recovery plans) or when appropriate, under authorities of partnering entities (e.g., in State wildlife action plans, Landscape Conservation Cooperative conservation "blueprints," etc.)."* To ensure consistency in mitigation application across bureaus, we anticipate a

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similar definition will be provided in the forthcoming BLM final mitigation policy.

- e. Scarce resources; and

Response: Here too, Congress used the term “scarcity” in the Federal Land Policy and Management Act, but did not define it. A definition for *scarcity* can be found in recently released FWS Mitigation Policy: “*The relative spatial extent (e.g., rare, common, or abundant) of the habitat type in the landscape context.*” To ensure consistency in mitigation application across bureaus, a similar definition will be provided in the BLM final mitigation policy.

- f. Sensitive resources.

Response: A definition for *sensitive* was not included in the proposed FWS mitigation policy. However a definition will likely be included in the BLM final mitigation policy.

Question 4: The Memorandum states that some resources may be “of such irreplaceable character” that it may not be “adequate or appropriate” to minimize or compensate for activities impacting those resources, and therefore agencies should promote avoidance.

- a. Does the Department consider minerals and other finite natural resources to be “irreplaceable natural resources?”

Response: The DOI does not generally consider leasable, salable, and locatable minerals to be “irreplaceable natural resources” in the context of the Memorandum

- b. Does the Department consider minerals and other finite resources “of such irreplaceable character that . . . [the Department] should design policies to promote avoidance of impacts to these resources”?

Response: Generally, no. Please see previous response.

Question 5: Under what statutory authority does the Department have the authority to seek “a net benefit”?

Response: The Department’s authority to seek a net benefit in recommended or required mitigation actions is derived from the underlying statutory authority mandating the management of the impacted resource. Under these authorizations,

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the bureaus and offices of the Department are responsible for managing different resources and for different uses.

For example, the Federal Land Policy and Management Act (FLPMA) mandates management of renewable resources in accordance with the principle of sustained yield, which is defined as the "maintenance in perpetuity of a high annual or regular periodic output" of such resources. Where, for example, past practices have degraded renewable resources so as to reduce their annual or regular periodic output to low levels, requiring that mitigation achieve a net benefit is consistent with the statutory mandate to achieve and maintain a high periodic output by increasing such resources to levels optimal for sustained production.

The FWS will encourage proponents to develop measures that result in a net gain toward achieving conservation objectives for the resources affected by their actions. Such proponents include, but are not limited to, Federal agencies when responsibilities such as the following apply to their actions:

- Carry out programs for the conservation of endangered and threatened species (Endangered Species Act (ESA), section 7(a)(1));
- Restore and enhance bird habitat (Executive Order 13186, section 3(e)(2)).
- Consult with the Service regarding both mitigation and enhancement in water resources development (Fish and Wildlife Coordination Act, section 2);

Question 6: Please be specific in response to the following requests:

- a. Please describe how the Department currently works together with other agencies in the application of mitigation.

Response: The Department has a rich history of working across agencies in the application of mitigation. For example, in developing the Department's 2012 Western Solar Plan, the Department of Energy and the BLM jointly prepared a programmatic environmental impact statement (PEIS). The Western Solar Plan identifies robust mitigation measures for solar energy development on public lands and also called for the development of mitigation strategies for solar energy zones on public lands. Similar, the Interagency Rapid Response Team for Transmission works across the Federal family to improve the overall quality and timeliness of electric transmission infrastructure permitting, review, and consultation by the Federal government. This partnership involves work to coordinate mitigation needs across the relevant agencies. Finally, in all actions that involve section 404 of the Clean Water Act, the Department of the Interior works closely with the USACE.

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- b. Please also describe how the Department currently works internally across sub-agencies in the application of mitigation.

Response: The agencies within the Department of the Interior work in close collaboration on the consideration and application of mitigation. For example, the BLM coordinated with FWS when developing land use plans to conserve and enhance Greater sage-grouse habitat. These land use plans were a key element of the FWS's determination that the species did not warrant an Endangered Species Act listing. The BLM and FWS have continued to coordinate closely to identify appropriate mitigation for proposed development activities that would impact Greater sage-grouse habitat, as contemplated by the BLM's land use plans, and identify common mitigation goals, objectives, and approaches. This mitigation coordination for Greater sage-grouse continues in earnest, and also includes representatives from State Governments, the US Forest Service, and the Natural Resources Conservation Service.

- c. Further, please tell me whether application of the Memorandum will change this practice, and if so, how it will change currently-applied mitigation practices.

Response: The application of the Memorandum will enhance this intra- and inter-Department coordination on mitigation. The identification of a common set of mitigation principles across the agencies, as identified in the Memorandum, facilitates more efficient and effective coordination.

Question 7: I understood you to say in your oral testimony that multiple agencies within the Department are already coordinating with respect to mitigation and that similar mitigation practices can be applied across multiple agencies with different authorities and missions. Is my understanding of your testimony correct? If not, why not? And, if so, please provide specific examples of inter-agency coordination that illustrate the basis for your testimony. With respect to each example, please answer the following:

Response: Your understanding of the oral testimony is correct; similar principles of mitigation can be applied across multiple agencies with different authorities. The authorities generally authorize the agencies to require mitigation, but do not provide prescription on how to apply mitigation. For example, the concept of durability of mitigation measures is a fundamental mitigation principle – mitigation should be durable, a principle that is consistent with multiple authorities that authorize mitigation.

Bureaus within the DOI have long worked together to successfully coordinate project authorizations and mitigation despite differing authorities and missions. For example, the BLM, FWS and other DOI agencies and non-DOI stakeholders coordinated closely in the

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development of the BLM's Regional Mitigation Strategy for the Dry Lake Solar Energy Zone, consistent with the Western Solar Plan. The BLM used input from the Service and other stakeholders to develop the Regional Mitigation Strategy's findings and recommendations, which the BLM considered and incorporated into its decisions authorizing rights-of-way for solar energy development. Further information on this example of inter-agency coordination on mitigation is available at:

http://www.blm.gov/nv/st/en/fo/lvfo/blm_programs/energy/dry_lake_solar_energy.html

The following responses to your sub-questions apply generally to all examples of inter-agency coordination:

- a. Which authorities dictate the form of mitigation sought?

Response: A variety of authorities contemplate the implementation of mitigation, including Federal Land Policy and Management Act, the Mineral Leasing Act, the Endangered Species Act, the Migratory Bird Treaty Act, the National Historic Preservation Act, and the Clean Water Act. The latter four authorities are good examples of where inter-agency coordination on mitigation is essential.

- b. Which agency determines the final appropriate mitigation measures required?

Response: In general, the permitting agency determines the final appropriate mitigation measures.

- c. Which agency's metrics are to be used?

Response: In general, this is a collaborative aspect to mitigation, though usually the agency with primary authority over the resource determines the metrics.

- d. Which agency is the arbiter, if an arbiter is required?

Response: In most cases, there is a clear responsible agency. For example, the U.S. Army Corps of Engineers is the final decision maker for mitigation under section 404 of the Clean Water Act.

Question 8: Title II of FLPMA requires a "systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences;" and requires the Bureau of Land Management (BLM) to "consider the relative scarcity of the values . . . and realization of those values."

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- a. Do you consider current mitigation policies of the Department, and specifically BLM, to equally value integrated resources? If yes, please specify.

Response: The values placed on resources by the BLM vary in place and time. We consider the relative values of resources, informed by public and other stakeholder input, during land use planning and other NEPA processes by using an interdisciplinary, scientific approach. The BLM's mitigation policy is largely implemented through these processes and associated decisions, at which time the BLM considers the relative value of the resources via a systematic, science-informed process.

- b. How, if at all, will such mitigation policies change as a consequence of the Memorandum? If they do, how will mitigation take account of those integrated resources?

Response: The BLM's forthcoming mitigation policy will provide additional guidance to the agency about how to consider the dynamic, inter-related nature of resources, via a scientific process, when determining mitigation needs in the land use planning and other decision-making processes, in compliance with NEPA.

Question 9:

- A. Did the Department borrow mitigation principles and a regulatory framework for mitigation from the administration of the Clean Water Act when establishing the mitigation priorities expressed in Secretary Jewell's Secretarial Order 3330?

Response: The Department sought input from a variety of sources in developing Secretarial Order 3330 and subsequent mitigation policies. Among mitigation practitioners, the mitigation framework established for section 404 of the Clean Water Act (CWA 404) has been known to be a well-functioning permit framework resulting in permit efficiencies and recognized benefits to impacted wetlands and streams. Lessons learned and best management practices identified through this body of work were helpful in thinking through similar concepts and problems governing Interior resources.

- B. To your knowledge, did the principles and framework referred to above influence the development of the principles reflected in the Memorandum?

Response: Yes.

- C. Was the Department the source of the following principles:

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- a. avoid potential environmental impacts;

Response: No. Avoiding impacts, the first step of the mitigation hierarchy, has been a long-established principle.

- b. where impacts cannot be avoided, require projects to minimize impacts to the extent practicable;

Response: No. Minimizing impacts that cannot be avoided, the second step of the mitigation hierarchy, has been a long-established principle.

- c. where projects cannot be avoided, seek offset or compensation; and

Response: No. Compensating for impacts that cannot be avoided or minimized, the third step of the mitigation hierarchy, has been a long-established principle.

- d. when a natural resource is "irreplaceable", avoid impact altogether?

Response: This principle is set forth in the Fish and Wildlife Service's 1981 mitigation policy, but may or may not have originated there.

- D. If the Department was not the source of these principles, outlined in question 9.C. above, who or what was the source of those principles?

Response: The mitigation hierarchy as outlined above comes from the Council on Environmental Quality's (CEQ's) regulations implementing the National Environmental Policy Act (NEPA), which were promulgated in 1978 (See 40 C.F.R. § 1508.20).

- E. Does the Department have authority under FLPMA to borrow these regulations and principles, and apply them?

Response: Yes, the Department has the authority under FLPMA to implement these principles in managing the public lands. Through the analytical framework of NEPA review, the BLM identifies reasonable mitigation options that prevent impacts from exceeding the FLPMA standard of "unnecessary and undue degradation."

- F. Has the Office of the Solicitor concurred?

Response: Yes.

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G. Has the Solicitor provided written guidance on this point?

Response: To date, the Solicitor has not issued formal written guidance on this point.

Question 10: There has been significant litigation over permitting under section 404 of the Clean Water Act in part because of a few terms that are not defined or not clearly defined by that Act. Is the Memorandum and the Department's manual on mitigation based, at least in part, on mitigation sequencing developed in the context of permitting under section 404?

Response: As noted above, the mitigation sequencing of avoid, minimize, and compensate was originally described in the 1978 CEQ regulations implementing NEPA (See 40 C.F.R. § 1508.20), and then carried into the section 404 regulatory framework of the Clean Water Act.

- a. If so, and given that the Memorandum itself uses a number of undefined or loosely defined terms, how will it be possible to keep the vagueness of the Memorandum from leading to similar disputes or leading to vastly different interpretations across the agencies?

Response: The problem of vagueness and inconsistency in the current application of mitigation is what the Memorandum, Departmental manual, and subsequent bureau mitigation policies seek to remedy. Mitigation has been applied differently by different offices and bureaus, even when resource impacts are similar or within close geographic proximity. These policies seek to provide a consistent framework for how mitigation needs are assessed and required, including the use of standardized terms and definitions wherever appropriate.

- b. How will project proponents be able to know what is required of them?

Response: The Memorandum, Departmental manual, and subsequent bureau mitigation policies all direct bureaus and offices to, wherever possible and appropriate, bring mitigation information and decisions early into the scoping and permit process. The Department's use of regional or landscape-scale mitigation strategies or plans constructed in advance of permits and authorizations further serves to transparently identify mitigation needs and provides upfront information to project proponents of best areas to avoid or develop, minimization tools to utilize, and potential compensatory mitigation needs for residual impacts.

Question 11: Please explain how mitigation unfolded with regard to the Greater Mooses Tooth I project in the National Petroleum Reserve-Alaska?

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- a. Why did the mitigation plan take so long to develop, cost so much on the front end, and still requires additional mitigation dollars on the back end despite the redesign of the project to make it conform to BLM's initial mitigation desires?

Response: The GMT1 project EIS was the first authorization of oil and gas production on Federal land within the National Petroleum Reserve-Alaska (NPR-A) and as a result, required time and effort to determine the most responsible path forward for allowing development to occur while also fulfilling our obligations to protect subsistence and other resources as directed by FLPMA, the National Petroleum Reserve Production Act (NPRPA), Alaska National Interest Lands Conservation Act (ANILCA), and other laws. The BLM worked closely with the State of Alaska, local Alaska Native villages and corporations, Federal partners such as the USACE, and other stakeholders through a public process to determine potential impacts to subsistence and other resources as part of this project authorization. The BLM does not understand the distinction you raise between "front end" and "back end."

b.

- i. How exactly was the \$8,000,000 payment developed? Were specific metrics devised to determine the value of the natural resources that are expected to be impacted by the development?

Response: To offset identified impacts that could not be fully mitigated by avoidance and minimization measures, ConocoPhillips agreed to contribute \$8 million dollars to BLM to establish a compensatory mitigation fund to provide for the development and implementation of a landscape-level regional mitigation strategy (RMS) and to finance mitigation projects as identified by that strategy.

The primary impacts to subsistence resources were identified through rigorous anthropological analysis in the NEPA process. As development of Federally managed oil and gas in the NPR-A is new, and therefore this impact and mitigation need is new, we consulted with agency experts and coordinated with ConocoPhillips to estimate the mitigation contribution

- ii. I understand that BLM is using part of the \$8,000,000 to develop its landscape-level Regional Mitigation Strategy. Is this accurate? If so, under what circumstances is it appropriate for a private party to bear the burden of paying for BLM to develop its strategy? If yes, please provide your reasoning and please articulate how the Department is using part of

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that \$8,000,000. Please also explain how the Department tracks those dollars, and applies those dollars. (See related Question 22 below.)

Response: Yes, your understanding is correct. The Regional Mitigation Strategy is being developed with a small proportion of the \$8,000,000, will determine how best to allocate compensatory mitigation funds to address the impacts to subsistence and other resources that will be impacted by the GMT1 project. The impacts that the BLM seeks to mitigate are the direct result of the economic pursuits of a private party, and the BLM believes that it is reasonable to assign these costs to the private party rather than to the American taxpayer. By developing a Regional Mitigation Strategy to assess impacts and mitigation opportunities through a stakeholder-driven process, the BLM will also be able to better and more rapidly respond to future permit applications from those private parties and at the same time reduce the risk of litigation.

The BLM has established a specific account for the \$8,000,000 and is tracking the spending closely, as done with all finances that the BLM manages.

Question 12: Given that public comment, coordination, and collaboration are so fundamental to FLPMA, what is the BLM’s process for determining whether policy or guidance rises to the level of requiring formal public comment and coordination in the context of a rulemaking versus administrative, unilateral formulation of instructions and guidance, etc.?

Response: In determining whether notice and comment rulemaking procedures are necessary for a given policy, the BLM, with counsel from the Department of the Interior’s Office of the Solicitor, carefully considers the requirements of section 553 of the Administrative Procedure Act (APA).

Question 13: “Best available science” is a metric referenced by multiple agencies as a tool to determine appropriate mitigation measures. How does the Department define “best available science”? Please provide citations for this definition.

Response:

The term “best available science” is undefined in statute, e.g. the Endangered Species Act, and the Department has not issued a formal definition of the term. Pursuant to Congressional direction, the Department has implemented information quality guidelines to ensure and maximize the quality, objectivity, utility and integrity of information disseminated by its bureaus and offices. In order to ensure the accuracy and integrity of its published scientific information, The Department follows a robust peer review process

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wherein the information undergoes internal peer review and is subject to public scrutiny. The Department maintains the highest standards possible for published information to ensure integrity and transparency.

Question 14: The Memorandum and resulting dialog with various stakeholders has provided few assurances to Alaskans that federal actions resulting from the Memorandum will not impose new federal mitigation policies affecting state, private, Native Corporation, or tribal lands. Please specify how the Memorandum, and federal mitigation policies generally, may impact non-federal land.

Response: The Service's draft revised Mitigation Policy will not alter the relationship between the Service's activities and non-federal lands. Currently, the Service applies certain authorities to make mitigation recommendations that do cover non-federal lands. For example, if a private landowner proposes to construct a project involving their authorized discharge of dredged or fill material into jurisdictional waters under section 404 of the Clean Water Act, the Service has the statutory authority under section 404(m) to make recommendations to mitigate the impact. This example of a process involving the Service's federal authority related to mitigation and non-federal lands has been in place for decades and is unchanged by the Presidential Memorandum or the Service's draft revised Mitigation Policy.

Question 15: Please articulate how the Department plans to incorporate and account for the Alaska Native Settlement Claims Act (ANCSA) and the Alaska National Interest Lands Conversation Act (ANILCA) in its policy, guidance, regulation, and directives that relate to mitigation.

Response: Mitigation requirements by the Department are considered on a case-by-case basis based on the impacts to resources that are anticipated and the requirements of applicable law, including, where applicable, ANILCA and ANCSA. For example, the Department must comply with the provisions of ANILCA when considering a proposed undertaking that that may affect access to subsistence resources in Alaska.

Question 16: To the full extent of your knowledge, what state and local government consultation occurred in the drafting of the Memorandum? What state and local government consultation, coordination and collaboration will the Department undertake as it develops policies and guidance in response to, and to incorporate, the policies and principles outlined in the Memorandum?

Response: Questions concerning the development of the Presidential Memorandum should be directed to CEQ.

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Mitigation policies developed by the Department's bureaus and offices have been or will be improved by input from the public, including opportunities for input by state and local governments. The FWS's proposed mitigation policy was published in the Federal Register and is open for review and comment. The BLM has been developing its forthcoming mitigation policy while considering the comments it received on its interim mitigation manual, issued in January, 2013.

Question 17: Will National Environmental Policy Act review be conducted to fully understand the cumulative social and environmental impacts that are expected to result from the multiple federal agencies directed in the Memorandum taking a major federal action to develop additional requirements for compensatory mitigation?

Response: Questions concerning the applicability of the National Environmental Policy Act (NEPA) to the Presidential Memorandum should be directed at CEQ. The FWS intends to prepare an environmental assessment under NEPA as it works to finalize the proposed revised mitigation policy. We anticipate that agencies may identify, recommend, or require mitigation for certain actions that are subject to NEPA reviews.

Question 18: Will the Department or the Executive Branch conduct a regulatory cost analysis to understand the additional cost burden developers are required to pay for additional compensatory mitigation fees imposed directly as result of Departmental mitigation policies or indirectly as result of the Memorandum?

Response: The establishment of BLM's forthcoming final mitigation policy and FWS's proposed mitigation policy do not require regulatory cost analyses. Certain actions in the field that may identify, recommend, or require mitigation, such as the establishment of plans or issuance of permits or authorizations, may trigger NEPA reviews, which can (and typically do) include an economic impacts analysis.

Question 19: How will implementation of the Memorandum lead to Federal policies that are clear, work similarly across agencies, and be implemented consistently within the agencies?

Response: A main objective of work by CEQ and the Department in updating mitigation policies is to promote more consistency across and within bureaus and offices as to how the steps of the mitigation hierarchy are implemented and in the development of mitigation recommendations and requirements. These documents create consistency in how bureaus and offices implement mitigation in a number of important ways, including the use of a compensatory mitigation goal; use of standardized definitions and terms, and; adherence to a consistent set of standards to ensure equivalency among compensatory mitigation providers.

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Question 20: As I mentioned in my opening statement, I am troubled by the Memorandum, as are many Americans, including many Alaskans. What specific assurances can you give us today on behalf of your Department to show us we are wrong to be concerned?

Response: Bureau mitigation policies have been worked on in a transparent fashion. The proposed FWS mitigation policy was published in the Federal Register and is open for review and comment from the public and other agencies. The BLM has been developing its forthcoming mitigation manual and handbook while considering the comments it received on its interim manual, issued in January 2013.

Question 21: Mr. Bean, my staff who attended your briefing to the Senate staff came away with the understanding that, in your view, minerals constitute or could constitute an “irreplaceable natural resource” as defined in the Memorandum. Is that understanding accurate? And, if not, why not? When Ms. Goldfuss testified before the House Natural Resources Committee, she did not answer the question of whether minerals constitute “irreplaceable natural resources.” Does the Department interpret minerals as “irreplaceable natural resources” for which avoidance of impact should be sought pursuant to the Memorandum?

Response: The DOI does not generally consider leasable, salable, and locatable minerals to be “irreplaceable natural resources” in the context of the Memorandum, in that DOI does not generally apply the mitigation hierarchy for impacts to these minerals.

However, in some rare cases a mineral resource might indeed be determined, though a public process and consistent with our legal authority, to be an irreplaceable natural resource. For example, I can imagine a scenario where a rare, above-ground geological formation may be considered sacred by Tribal members and valued for its aesthetic beauty by the general public, and therefore it might be identified as a resource to be avoided through a land use planning or other decision-making process.

Question 22: The Miscellaneous Receipts Act (MRA) provides that “an official or agent of the Government receiving money for the Government from any source shall deposit the money in the Treasury as soon as practicable without deduction for any charge or claim.” 31 U.S.C. § 3302(b). As a general matter, once money is deposited in the Treasury’s general fund, it cannot be withdrawn without a congressional appropriation. Thus, the MRA protects the constitutional principle of separation-of-powers and prevents executive branch agencies, such as those to which the Memorandum is addressed, from using money that has not been appropriated by Congress.

- a. How are funds generated as a consequence of mitigation payments treated by the Department today?

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Response: The BLM believes that funds generated as a consequence of mitigation payments constitute contributed funds that the Department may accept under applicable authorities that include the provisions of 43 U.S.C. § 1737(c).

b. How does the MRA apply to these funds?

Response: Section 1737(c) instructs the Department to credit receipts under that authority to a separate account in the Treasury. Accordingly, the Department is not required to deposit these funds in the General Fund pursuant to the Miscellaneous Receipts Act. Section 1737(c) further authorizes these funds to be appropriated and made available until expended. The BLM’s appropriations acts routinely include a provision appropriating the funds for expenditure by the BLM.

c. How, if at all, will these practices change as a consequence of the Memorandum? Please provide citations to support your answer.

Response: The Presidential Memorandum does not change these practices.

d. Has the Department or any of its constituent agencies prepared a legal analysis of the application of the MRA to mitigation payments received?

Response: Yes, the Office of the Solicitor has been consulted.

Questions from Senator John Barrasso

Question 1: When questioned whether the Department regards finite natural resources to be irreplaceable, you were unable to provide a clear response. As such, please provide a clear answer regarding the Department’s definition of “irreplaceable natural resources” and whether finite natural resources would be deemed “irreplaceable” under that definition.

Response: The DOI interprets “irreplaceable natural resources” as it is defined in the Presidential Memorandum, which states “resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced.”

We take the assumption that by “finite natural resources” you mean “leasable, salable, and locatable minerals.” The DOI does not generally consider leasable, salable, and locatable minerals to be “irreplaceable natural resources” in the context of the Memorandum.

However, in some rare cases a mineral resource might indeed be determined, though a public process and consistent with our legal authority, to be an irreplaceable natural

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resource. For example, I can imagine a scenario where a rare, above-ground geological formation may be considered sacred by Tribal members and valued for its aesthetic beauty by the general public, and therefore it might be identified as a resource to be avoided through a land use planning or other decision-making process.

Question 2: Please provide the Department’s interpretation of “scarce or sensitive natural resources” and how those may compare or overlap with the Department’s interpretation of “irreplaceable” resources.

Response: One area where standardization was not intended is when determining what resources require mitigation. Under different laws and authorizations, the bureaus and offices of the Department are responsible for managing different resources and for different uses. The use of terms such as “importance,” “scarcity,” “sensitivity,” or “irreplaceable” are meant as parameters to guide bureaus and offices in making similar decisions about what types of resources may require mitigation, not what specific resources should be targeted. Certainly, resources that are “irreplaceable” may also be those that are “scarce” or “sensitive.”

Where multiple bureaus and offices have responsibility in managing a particular resource, the utilization of a landscape-scale approach to planning and permitting better allows for more integrated and consistent management, including in the application of mitigation.

Question 3: The Fish and Wildlife Service recently announced a revised mitigation policy which will substantively change current conservation practices. Since the agency’s own press release touts new policies and new goals, it seems clear that the Fish and Wildlife Service will be revising and implementing new policy. It seems obvious that other agencies will do the same. The Memorandum does not call for collaborative development of new policies, only that new policies be shared. In your opinion, when conflicts among agencies arise as a result of new or reformed mitigation policies, which agency will make the final determination?

Response: The Department is working to ensure all mitigation policies developed by bureaus and offices are not in conflict with one another, apply consistent principles, and clarify rules for mitigation implementation, particularly when multiple bureaus and offices have responsibility in managing a particular resource.

Question 4: Under the terms of various agencies’ mitigation procedures, how is the “durability” of mitigation for current projects assessed? How does the Department intend to assess the concept of “durability” under new policies and procedures prompted by the Memorandum?

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Response: The Department will require, as appropriate, mitigation that is durable for the duration of the impacts resulting from the associated permit or authorization. The Department generally assesses durability in three ways.

To be considered durable, mitigation measures must achieve and maintain their required outcomes, including being resilient to changing circumstances (e.g., climate change, fire, invasive species), for the duration of the impacts. Mitigation measures must include protection from actions that are incompatible with mitigation measures, such as those required by permit terms and conditions, land use planning, or legal designations. And lastly, durability requires financing mechanisms sufficient to maintain, monitor, and adaptively manage mitigation measures for the duration of the impact.

As appropriate, the Department will ensure that the responsible party is obligated to maintain the mitigation's durability and correct any loss of durability, unless the outcome is not achieved due to a force majeure event (i.e., an event that cannot be reasonably anticipated or controlled, such as natural disasters outside of a predicted range of disturbance, additional governmental restrictions, etc.). If the loss of durability is not corrected, the Department will take appropriate follow-up actions, consistent with applicable law.

Question 5: In each of the agencies under the purview of the Department, at what level is "durability" currently assessed (i.e., field staff, regional staff, etc.)? How will this change under the new policies prompted by the Memorandum?

Response: As is currently the case, the responsibility to determine the durability of a mitigation measure lies with the line officer or authorizing official responsible for all other aspects of the project. Depending the scope and scale of a project, this individual can be located at different parts of a bureau's organization. Implementation of new mitigation policies does not change this structure.

Question 6: Mr. Bean, since you were unsure whether the President will request your input during the response to the letter dated February 24, 2016 regarding the Memorandum, please answer the following:

1) to what extent does the Department's legal authorities prohibit or modify the application of the principles and mandates outlined in the Memorandum?

Response: We have not found programs that will be in conflict with any of the provisions of the Memorandum. However, there will be appropriate differences in mitigation implementation as the Department's bureaus and offices operate under different laws and authorizations, and are responsible for managing different resources and for different uses. For example, the BLM has limited discretion for decisions with

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regard to locatable minerals and therefore in considering actions under the Mining Law, the BLM will likely limit or modify the application of the Memorandum”

2) Given the differing legal authorities of the agencies, how does the Memorandum, with terms that CEQ noted are at times by design subject to interpretation, result in an umbrella of “consistent standards and guidance” for landscape-scale conservation while simultaneously affording “right tailored approaches” in individual instances?

Response: A main objective of work by CEQ and the Department in updating mitigation policies is to promote more consistency across and within bureaus and offices as to how the steps of the mitigation hierarchy are implemented and in the development of mitigation recommendations and requirements. These documents create consistency in how bureaus and offices implement mitigation in a number of important ways, including the use of a compensatory mitigation goal; use of standardized definitions and terms, and; adherence to a consistent set of standards to ensure equivalency among compensatory mitigation providers.

3) How does the Department define “best available science”?

Response: The term “best available science” is undefined in statute, e.g. the Endangered Species Act, and the Department has not issued a formal definition of the term. Pursuant to Congressional direction, the Department has implemented information quality guidelines to ensure and maximize the quality, objectivity, utility and integrity of information disseminated by its bureaus and offices. In order to ensure the accuracy and integrity of its published scientific information, The Department follows a robust peer review process wherein the information undergoes internal peer review and is subject to public scrutiny. The Department maintains the highest standards possible for published information to ensure integrity and transparency.

Question 7: CEQ has testified that some terms were left intentionally vague to allow for individual agencies to develop their own interpretation. Will DOI personnel develop Department-wide definitions for all agencies under your purview, or will each of the agencies be left to devise their own, individual definitions and implementation strategies?

Response: In November, 2015, the Department released a Departmental Manual Chapter on Implementing Mitigation at the Landscape-scale (600 DM 6). The Manual included definitions for key terms that will be used by forthcoming bureau and office mitigation policies. Bureau and office policies will also identify and define other key terms as needed and as appropriate. In doing so, however, the Department will work to limit conflicts between terms to ensure consistency and standardization wherever possible in the implementation of mitigation.

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Question 8: The Memorandum requires that mitigation principles, and general approaches, will be shared amongst agencies. At what stage during development or implementation will guidance documents, definitions, and other key principles be shared with other agencies?

Response: Bureau mitigation policies have been worked on in a transparent fashion. The FWS proposed mitigation policy was published in the Federal Register and is open for review and comment from the public and other agencies. The BLM has been developing its forthcoming mitigation manual and handbook while considering the comments it received on its interim manual, issued in January 2013.

Questions from Senator Steve Daines

Question 1: Please provide the listing of resources that will be included in the Department of the Interior's definition of "irreplaceable natural resources". If resources such as timber, coal, oil and natural gas are to be included, please provide details on how the agency's actions will avoid such resources as provided for in Section 3(a) of the Memorandum.

Response: The DOI does not generally consider leasable, salable, and locatable minerals to be "irreplaceable natural resources" in the context of the Memorandum.

Question 2: The Department of the Interior has already released Department Manual 600 DM 6, Implementing Mitigation at the Landscape-scale, on the implementation of mitigation policy. This policy requires the department's bureaus and offices to consider greenhouse gas emissions from projects and activities, methods of protecting resources that store carbon, and changing wildlife behaviors. How are the agencies and bureaus of the Department implementing this guidance in relation to leases for coal mining or oil and gas production?

Response: Secretary Sally Jewell recently announced that the Interior Department will launch a comprehensive review to identify and evaluate potential reforms to the federal coal program in order to ensure that it is properly structured to provide a fair return to taxpayers and reflect its impacts on the environment, while continuing to help meet our energy needs. Consistent with the practice during two programmatic reviews of the federal coal program that occurred during the 1970s and 1980s, the Interior Department will also institute a pause on issuing new coal leases while the review is underway. Any leases for coal mining conducted by bureaus and offices of the Department will be consistent with conditions and permits of existing leases and the outcomes of this review. Likewise for oil and gas production, the DM manual does not require the analysis of greenhouse gas emissions in project or permit decisions. It only suggests such consideration, where appropriate, to better understand project impacts to climate change.

**U.S. Senate Committee on Energy and Natural Resources
Hearing on March 15, 2016: The Presidential Memorandum Issued on
November 3, 2015 entitled "Mitigating Impacts on Natural Resources
from Development and Encouraging Related Private Investment"
Questions for the Record Submitted to Mr. Michael Bean**

Question 3: In Section 2(f) of the Memorandum, the definition of "mitigation" includes compensating for impacts on natural resources. Although compensatory mitigation is not a new concept to the Department of the Interior, does the department expect an increase in the amount of projects being approved with the use of compensatory mitigation? If so, how will the department account for compensatory mitigation within its budget? Will the department request a specific budget line item to cover potential compensatory mitigation or will this potential expense be charged against existing programs?

Response: A stated goal of the Department in the establishment of new mitigation policies is the transparency, efficiency, and consistency such guidance will bring to the permit process. Although a multitude of factors play a role in successful permitting and project development, mitigation principles espoused by these policies, such as efforts to produce better avoidance and the consideration of mitigation measures early in the permitting process, are intended to reduce permit times and could feasibly lead to more project determinations.

Efficiencies in permitting timelines however will not be advanced solely by the proper and effective use of compensatory mitigation, but rather the application of the full mitigation hierarchy (avoidance, minimization, compensation) at relevant scales and as early as possible in the permit process.

While there may be limited situations where actions initiated by the Department's bureaus and offices could require compensatory mitigation, the Department's mitigation policies seek to establish more effective mitigation framework for third parties requiring permits and authorizations. When such permits and authorizations require compensatory mitigation, costs would be borne by these third parties.

Question 4: Please provide the listing of resources that will be included in the Department of the Interior's definition of "irreplaceable natural resources". If resources such as timber, coal, oil and natural gas are to be included in this listing, please provide details on how agency actions will avoid such resources as provided for in Section 3(a) of the Memorandum.

Response: The DOI does not generally consider leasable, salable, and locatable minerals to be "irreplaceable natural resources" in the context of the Memorandum.

Question 5: Have you identified any authorizing statutes for your programs or other land management agencies' programs that will be in conflict with any of the provisions of the Memorandum? If so, please provide a listing of those statutes along with details on how the Memorandum causes a conflicts.

**U.S. Senate Committee on Energy and Natural Resources
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Response: We have not found programs that will be in conflict with any of the provisions of the Memorandum. However, there will be appropriate differences in the implementation of mitigation as the Department's bureaus and offices operate under different laws and authorizations, and are responsible for managing different resources and for different uses. For example, the BLM has limited discretion for decisions with regard to locatable minerals and therefore in considering actions under the Mining Law, the BLM will likely limit or modify the application of the Memorandum.

Question 6: Section 3(a) of the Memorandum states that agencies should take advantage of large-scale plans and analysis to assist in identifying how proposed projects potentially impact natural resources and to assist with mitigation. Will the Bureau of Land Management interpret this section to include resource management plans, and if so, will the agency require revisions to all existing plans to account for its newly developed mitigation framework?

Response: Yes, the BLM will consider resource management plans, in addition to other available Federal, State, tribal, local, or non-governmental large-scale plans and analysis to inform these analyses.

No, the BLM is not going to revise resource management plans to specifically account for the newly developed mitigation framework. As resource management plans are revised or amended, under ordinary processes, the BLM will consider the new guidance during those processes.

Question 7: Will the Bureau of Land Management and other agencies be able to meet the timeframes set forth in Section 4(a) of the Memorandum for developing and implementing manual and handbook guidance as well as for publishing regulations concerning mitigation? If these timeframes are not adhered to, what actions may the Council on Environmental Quality take against the agency, if any?

Response: Section 4(b) of the Memorandum states: "Within 1 year of the date of this memorandum, the Department of the Interior, through the Bureau of Land Management, shall finalize a mitigation policy that will bring consistency to the consideration and application of avoidance, minimization, and compensatory actions or development activities and projects impacting public lands and resources."

Yes, the BLM will meet the timeframes set in this section to finalize the BLM's mitigation policy. However, the BLM will not be drafting a regulation on this topic during this administration.

Questions from Senator Joe Manchin III

**U.S. Senate Committee on Energy and Natural Resources
Hearing on March 15, 2016: The Presidential Memorandum Issued on
November 3, 2015 entitled “Mitigating Impacts on Natural Resources
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Questions for the Record Submitted to Mr. Michael Bean**

Questions: On March 1, I joined the Chairman and others members of this Committee in sending a letter to the President regarding the “Presidential Memorandum: Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment.” That letter requests clarification on the practical implications of the mandates and guidance that the Memorandum sets forth and I look forward to the Council on Environmental Quality’s response.

Additionally, I remain unconvinced that the new policies set forth in this Memorandum are necessary. The stated intent of the Presidential Memorandum is to ensure federal regulations are consistent across federal agencies. The desired result is to increase private investment and streamline federal permitting while allowing these agencies to maintain the ability to tailor mitigation efforts in their specific location.

This begs the question, is the current process for mitigation on public lands deficient? Is your agency experiencing challenges when negotiating and working to achieve mitigation solutions with private sector developers? If so, please provide examples.

Response: In short, we do think that the current process for mitigation public lands was, in some cases, causing unnecessary delays in permitting and unsustainable outcomes for resources.

We have developed a great partnership with some private sector developers, and thus, we have seen efficient and effective permitting and mitigation for their projects. However, the inconsistent approach to mitigation across the agency merited some internal guidance in order to be able to re-create those great partnerships with all proponents seeking development of the public’s resources on public lands.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 03 2016

The Honorable Lisa Murkowski
Chairman, Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Murkowski:

Enclosed are responses prepared by the Department of the Interior in response to questions received following the February 23, 2016, hearing before your Committee regarding the Department's Fiscal Year 2017 budget request.

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional
and Legislative Affairs

Enclosure

cc: The Honorable Maria Cantwell
Ranking Member

**SENR Hearing on
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Questions for Secretary Jewell**

Questions from Chairman Murkowski

Question 1: The Budget Brief for 2017 notes “(r)esource management plans provide the basis for every BLM management action and are *necessitated* by changes in resource use and demands...” (emphasis added)

A) What, specifically, are the changes in resource uses and demands that necessitate potential management of:

a. 715,000 acres of the Fortymile and Mosquito Flats Areas of Critical Environmental Concern (ACECs) in the Eastern Interior Management Plan;

Response: The Fortymile ACEC is proposed for the purpose of protecting caribou calving and post-calving habitat and winter range for the Fortymile caribou herd, in addition to critical Dall sheep habitat. The Fortymile caribou herd is a highly important subsistence opportunity in east central Alaska and a valued resource to all Alaskan hunters. The population and range of the herd is currently depressed compared to its historical extent. Estimated at more than 500,000 animals in 1920, it currently includes 50,000 animals. Calving and post-calving habitats were identified as the most sensitive habitats by the Fortymile Caribou Herd Planning Team in its 2000 habitat needs assessment. The team recommended protection of calving and post-calving habitats from additional disturbance, including development. Focusing on limiting impacts to the most critical habitat areas for the herd is the most efficient strategy for maintaining this important resource. Designation of the Fortymile ACEC would help ensure a healthy population for the herd.

The Mosquito Flats ACEC proposes to protect a unique high elevation wetland area with uncharacteristic natural features that serves as an important moose calving area. The wetland supports BLM sensitive species, including nesting trumpeter swans and a dense population of short-eared owls. Mosquito Flats also supports most of the wetland obligate waterfowl in the Fortymile planning subunit. The surface hydrology of the Mosquito Flats wetland area is sensitive to damage by summer use of Off-Highway Vehicles (OHV). OHV tracks through the wetlands alter surface water flow paths to the Mosquito Fork as well as substantially increase input of silt and organics to the stream. BLM has documented damage of repeated OHV use in the wetlands.

BLM is currently reviewing comments received on both the Draft RMP/Draft Environmental Impact Statement (EIS) and the January 2015 Federal Register notice providing additional information on the potential ACECs.

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b. Nearly 700,000 acres in the Sheefish Bering Sea-Western Interior ACEC;

Response: While developing the Bering Sea-Western Interior (BSWI) RMP, BLM received input from the Georgetown Tribal Council, the Western Interior Subsistence Resource Advisory Council, and the public regarding increased importance of non-salmon species, specifically sheefish, considered a culturally significant fish species along the Kuskokwim River and harvested for subsistence use. Sheefish are often caught before salmon in the spring and offer an opportunity for fresh fish early in the season. In recent years, salmon have been in decline and there has been a shift in harvest patterns away from salmon and more toward whitefish and other salmon species.

Sheefish spawning grounds have very specific needs and occur in limited areas on the Kuskokwim River. The Alaska Department of Fish and Game issued a 2012 report on these spawning grounds that identified three locations on the Kuskokwim River, including BLM-managed lands. As a result of the local importance expressed in public comment and the findings of the State's report, BLM proposed the Sheefish ACEC to protect these sheefish spawning areas.

c. Any of the over 6 million proposed acres in the Central Yukon Management Plan; and

Response: There are approximately 1.8 million acres of existing ACECs in the Central Yukon Planning Area that were designated in 1986 by the Central Yukon RMP and in 1991 by the Utility Corridor RMP. During scoping and public outreach in 2013 and 2014, BLM received numerous nominations for new ACECs (approximately 3.7 million acres) and expansions of existing ACECs (approximately 1 million acres). Many of the nominations identify habitats of important subsistence species such as caribou, Dall sheep, and salmon.

The Central Yukon interdisciplinary team members reviewed all ACEC nominations and BLM-managed lands in the planning area to determine whether any areas should be considered for designation as an ACEC. Team members also reviewed all existing ACECs and research natural areas to determine if the designations are still relevant. The interdisciplinary team determined that approximately 5.2 million acres met the relevance and importance criteria for potential ACEC designation.

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BLM will further analyze potential ACECs during development of draft alternatives and in the Draft RMP/EIS, and will allow for public comment on both the preliminary alternatives and the Draft RMP/EIS.

- d. Some of the proposed ACECs would result in the closure of the public lands to mining or other activities. Please articulate how the Department would satisfy its multiple-use, sustained yield mandate in the Federal Land Policy and Management Act if any of the ACECs proposals that contemplate a form of closure are finalized.**

Response: Congress mandated the designation of ACECs through the Federal Land Policy and Management Act (FLPMA) to manage areas containing truly unique and significant resource values. ACEC designations highlight significant resources or hazards where special management measures are needed to prevent irreparable damage. The ACEC designation enables land managers to specifically address the relevant and important value or hazard and formulate a prescription to manage it. In the event that some ACECs are closed to mining, BLM will meet FLPMA's multiple use mandate by continuing to administer mining of federal minerals on lands outside of the those ACECs, consistent with applicable law.

- B) Please tell me when and how the Department has informed Alaskans generally, and specifically Fortymile placer miners, of developing management plans, individual obligations and new enforcement approaches? Please provide a timeline detailing these efforts. And please elaborate concerning the Department's policy in the interim while new policies, enforcement approaches, management plans and the like are being developed. For example, is it the Department's position that miners may continue to operate under existing policies while a new policy is being drafted? Please explain.**

Response: For many planning efforts, BLM is required to publish notices in the Federal Register, but generally creates many more opportunities for public outreach. BLM is currently revising its planning regulations to include more robust public outreach and collaboration.

Specific outreach efforts for the Eastern Interior Resource Management Plan/Environmental Impact Statement EIRMP/EIS, which are typical for BLM planning efforts in Alaska, included:

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- ***Pre-planning, 2007 – 2008:*** BLM notified the public of pending planning efforts and identified interested parties. Outreach efforts included participation in local events and discussions with both groups and individual permit holders and mining claimants.

- ***Scoping, April – June, 2008:*** Fortymile placer miners were invited to a scoping meeting held in Chicken in June 2008. Additional scoping meetings were held in Anchorage, Tok, Delta Junction, Fairbanks, Central, Chalkyitsik, and Eagle. BLM invited federally recognized tribes in the region to participate in government-to-government consultation.

- ***Review of the Draft RMP/EIS, March 2012 – April 2013:*** A Notice of Availability of the Draft RMP/EIS was published in the Federal Register with letters sent to interested parties about the publication and public comment period. Nineteen public meetings were held, including one in Chicken, and BLM consulted with interested tribal governments. Presentations were provided to interest groups, including the Alaska Miners Association, Eastern Interior Regional Advisory Council, and the Alaska Wilderness League. BLM accepted public comment on the Draft RMP/EIS for more than a year.

- ***Additional ACEC, January – February 2015:*** A Notice of Availability was published in the Federal Register, initiating a 60-day public comment period for a potential new ACEC (Mosquito Flats). BLM issued a news release which generated media coverage in local newspapers, and over 500 postcards were sent to interested parties. Presentations were given to various groups, including the Alaska Miners Association. Informal discussions were held with Fortymile Placer Miners.

- ***Post Draft:*** BLM met with the Fortymile Miner's Association (FMA) to discuss Cooperating Agency Status for the FMA. Planning issues were further discussed during Director Kornze's visit to Chicken in 2015. Most recently, Assistant Secretary Janice Schneider traveled to Chicken and met with miners during the week of May 16, 2016. BLM will publish a Federal Register notice announcing the availability of the Proposed RMP/Final EIS for 30-day protest and 60-day governor's consistency review.

In 2013 and 2014, BLM staff began discussions with miners and mining organizations on current practices that were not meeting reclamation performance standards. BLM sent a letter with associated information to every mining claimant in Alaska, provided presentations at State and industry meetings, and met with individual miners to go over the regulations and how it would be measuring reclamation. In Summer 2015, BLM

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implemented the Jack Wade Demonstration project in the Fortymile Wild and Scenic River Corridor to test new reclamation techniques for placer mined streams in Alaska.

When the new RMP is completed, the stipulations in the plan will only affect new or modified mining plans of operation. Miners operate under existing policies until new or revised policy is implemented.

Question 2: Once covering 160 million acres, Public Land Orders reserving lands throughout the State of Alaska were put in place after 1971 to guarantee that Alaska Natives could select their claims settlement act selections. The Department itself reported in 2004 that there was no need for any more than 6.7 million acres still to be encumbered – and that number has since been further reduced over the past dozen years with the completion of revised Bureau of Land Management plans. Moreover, it is my understanding that Natives have now filed all their selections.

A) Please provide specifics about the actions your agency is taking to lift the remaining PLOs throughout the State of Alaska.

Response: BLM is continuing to use the land use planning process to make recommendations to either lift or retain Public Land Orders. PLOs specify which lands are or are not available for selection by either an Alaska Native Claims Settlement Act corporation or the State of Alaska. They further state that any lands not conveyed to an ANCSA corporation would remain reserved for study and review for the purpose of classification or reclassification. Balancing the demands of multiple resource users and stakeholders to determine what is in the public's best interest, the Secretary is authorized to classify and reclassify the lands withdrawn, and to open the lands to appropriation. BLM's land use planning process satisfies the requirement for such study, review, and classification and is the appropriate mechanism for recommending a withdrawal be lifted.

B) I would like your commitment to lift all the remaining PLOs as soon as possible, and kindly provide a timeline by which you commit to abide.

Response: BLM is committed to continuing an expeditious use of its planning process to make recommendations to lift or retain PLOs. Those recommendations are a long-term commitment.

Question 3: The Alaska Land Conveyance has been a long-standing priority for me. The State of Alaska has serious reservations about the accuracy of the surveying methodology the Department proposes to use to advance the land conveyances.

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- A) Will you commit to engage the State of Alaska in an open and transparent manner to enable the State of Alaska and the Department to come to a mutual agreement regarding the survey methodology selected to complete the outstanding surveys?**

Response: BLM began meeting with the State of Alaska on the proposed Direct Point Positioning Survey in the summer of 2013 and will continue to engage the State to increase cooperation to meet acceleration goals of the land transfer program.

- B) Given that there are approximately 21 million acres of survey work to complete; 300 Native allotments to convey, some of which I understand have been pending since 1906; and approximately 80 village corporation surveys to complete, why did you advance a 20% reduction in funding from last year's levels?**

Response: As indicated at the hearing, BLM has identified a faster, more accurate, and more cost-effective survey method that would provide a higher quality survey record than currently available. This would allow BLM to more efficiently complete the survey and conveyance work for all remaining State land selections, saving time and money for both the Federal government and the State of Alaska while supporting economic development within the State.

- a. If this reduction is a result of the Department's assumption that a new survey methodology will provide savings, but the Department and the State of Alaska are unable to come to agreement on the use of the methodology currently proposed by the Department, what will be the result? And what contingency plans do you have in place in that event?**

Response: BLM believes the proposed survey methodology will realize a significant time and cost savings in finalizing survey of the entitlement owed to the State of Alaska. The agency is ready to consider any contingency plan that representatives from the State bring to the table so that a mutually agreed upon path forward can be realized.

- b. If the methodology the Department proposes to use proves ineffective in Alaska, or for whatever reason, another methodology mutually agreed upon by the Department and the State of Alaska costs more than the Department has budgeted in the 2017 brief, what results? How does the Department propose to pay any potential additional costs related to surveying?**

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Response: If the survey work planned for 2017 exceeds what the Department has budgeted, BLM will continue to prioritize its efforts to ensure maximum accomplishment within this field season.

Question 4: The Department released a draft Five Year OCS Plan for 2017-2022 for offshore oil and gas development over a year ago – in January 2015.

A) With 2017 now just 10 months away, when does Interior plan to release its final Five Year Plan?

Response: The Proposed Program and accompanying Draft Environmental Impact Statement (EIS) were published on March 15, 2016. Following publication, the Bureau of Ocean Energy Management held public meetings for areas included in the proposal and opened a 90 day public comment period on the Proposed Program and 45 days on the Draft Programmatic EIS.

Following this opportunity for public comment and environmental review, the Department will prepare a Final Programmatic EIS with the Proposed Final Program (PFP). It is expected that the Proposed Final Program and EIS will be released in Fall 2016.

B) When the final Plan is released, will you commit to coming back before our Committee, to testify about what it includes, should we decide to hold an oversight hearing on it?

Response: Yes, the Department would participate in such a hearing.

Question 5: The FY 2017 Land and Water Conservation Fund budget request is \$900 million: \$400 million in discretionary funding and \$500 million in permanent funding for Department agencies and the Forest Service. For 2018, the President's budget request proposes that all \$900 million would be mandatory funding.

A) Please explain to me why, with such an enormous maintenance backlog at the Bureaus you oversee, that the Department of the Interior would continue to focus in this budget on acquiring more land?

B) More generally, how do you reconcile additional federal land acquisition at this time of staggering national debt and maintenance backlogs?

Response: The Department's land acquisition proposals address the nation's most urgent needs for recreation, species and habitat conservation, and the preservation landscapes and historic and cultural resources. We believe that addressing these needs and reducing

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the maintenance backlog on lands the Department manages are both vitally important goals, and the FY 2017 budget reflects both priorities.

We want to note that 99 percent of the proposed funding for land acquisition targets inholdings within the boundaries of existing park units, refuges, or conservation areas. Acquisition of inholdings can greatly simplify land management for federal managers and neighboring landowners. Eliminating checkerboard ownership within federal units simplifies nearly every aspect of land management:

- Wildland fire managers can apply appropriate fuels reduction, planned burns, and fire suppression treatments more easily across an unfragmented landscape; fire management is more challenging and costly when private inholdings and developed properties are intermixed with federally-managed forests and public lands.
- Law enforcement and public safety personnel can more easily patrol and respond to emergencies when public ownership is consolidated. An unfragmented unit allows unified signage, road networks, and other infrastructure that will best enable safe public access and allow for the efficient movement of emergency personnel and vehicles to locations frequented by visitors.
- Recreation managers can more easily provide access for the public to enjoy their public lands. In some cases checkerboard ownership can cause confusion among the public about acceptable land uses, and can restrict the public's ability to access some areas of public land.
- Natural resource management is simplified in an unfragmented landscape. When checkerboard ownership is eliminated, biologists, geologists and other natural resource professionals can move freely across the land that they are responsible for surveying, and natural resource management actions can be applied more efficiently across a landscape in single ownership.

Question 6: The comment period is closed on rules recently proposed separately both by the National Park Service and the U.S. Fish and Wildlife Service that would apply to the development of oil and gas pursuant to rights that pre-existed the designation of the producing lands either as Parks or as Wildlife Refuges. I have serious concerns about both of these proposed regulations.

- A) Your budget makes no mention of increased capacity of these two agencies to implement the regulations. However, the Bureau of Land Management, which has considerable experience with the regulation of oil and gas production, acknowledges that attracting and retaining qualified personnel**

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to meet that Agency's responsibilities in this area has been a challenge and requires more money.

B) Assuming that the proposed Park Service and Fish and Wildlife Service regulations achieve final status, how will these agencies administer the new rules and what will it cost for them to do so?

Response: This proposed rule will allow for the responsible extraction of oil and gas, but require closer adherence to industry best management practices – especially with respect to abandoned infrastructure and debris. As highlighted in the proposed rule, there would be additional responsibilities involved in processing operations permit applications and monitoring operations. The FWS currently has dedicated staff that manages oil and gas development on National Wildlife Refuge System lands, and believes the activities required by this rule can be effectively staffed with the reallocation of refuge staff and resources. The proposed rule also contains cost recovery provisions that would help ensure FWS has the necessary resources to implement a final rule effectively and efficiently.

The FWS's oil and gas program is managed by employees with skills and expertise in: wildlife and habitat conservation, oil and gas operations, and partnership development. The FWS has not experienced problems with retention of employees with this unique skill set.

The NPS proposed updates to its existing regulations managing non-federal oil and gas development on lands administered by the NPS would require some reallocation of existing staff and resources. The NPS does not anticipate requesting additional funds for the implementation of this rule. The NPS currently has dedicated staff in Washington, regional offices, and other field offices that manage oil and gas development on lands administered by the NPS including: petroleum engineering, petroleum geology, compliance, planning, and policy. The NPS has not experienced problems retaining employees with these unique skill sets.

As highlighted in the proposed rule, there would be additional responsibilities involved in processing operations permit applications for previously exempt operations, and also to monitor additional operations in NPS units. The NPS believes implementation of this rule can be effectively accomplished with the reallocation of either Washington, regional office, or field staff and resources to meet this temporary increase in need.

Question 7: The U.S. Geological Survey recently released its Mineral Commodity Summaries report for 2016, and it shows that the United States imports made up

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more than one-half of the apparent domestic consumption of 47 non-fuel mineral commodities. The report states that the estimated value of U.S. metal mine production was 15% less than in 2014 and 27% less than in 2011. Additionally, the report notes that our country is 100% reliant on 19 non-fuel commodities, and China is the largest supplier of those foreign sourced minerals.

A) Do you believe the proposals in Interior's budget request – which would impose new taxes and fees on top of an already-slow permitting process – will somehow increase our nation's mineral security and by consequence economic and national security?

Response: The President's FY 2017 budget request includes a suite of legislative proposals that aim to achieve a fair return to the American taxpayer from the sale of Federal resources and by reducing unnecessary spending. The proposal to institute a leasing program under the Mineral Leasing Act would apply to gold, silver, lead, zinc, copper, uranium, and molybdenum. These minerals are not the type of rare earth elements that comprise the 19 non-fuel commodities referenced in your question. Although mining claims for major commodities are experiencing a decline in conjunction with the decline of major commodity prices, BLM continues to experience interest from the mining industry to locate and discover domestic supplies of "technology metals", which include these rare earth elements. These types of rare earth elements would not be covered by the proposed leasing program.

Question 8: Once again the Department assumes that Congress will enact the 2010 U.S.-Palau Compact assistance agreement in its budget for the Office of Insular Affairs.

A) What offset(s) has the Administration identified to pay for this Agreement?

Response: Approving the results of the September 3, 2010, Compact Review Agreement between the United States and the Republic of Palau is of critical importance to the national security of the United States, to our bilateral relationship with Palau, and to our broader strategic interests in the Asia Pacific region. On February 22, 2016, the Administration transmitted legislation to the Congress that would approve the Agreement. The Administration has proposed several mandatory savings proposals that could be used to offset the proposed legislation, including: terminating payments to states who have certified as completing the reclamation of abandoned coal mines, and production incentive fees on non-producing Federal oil and gas leases. The Administration stands ready to continue to work with Congress to approve legislation relating to this critically important issue.

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Question 9: Last year in testimony before us the Department indicated it knew it has to decide how to provide additional lands to the Villages of Kaktovik and Canyon Village, their lands inside the Arctic National Wildlife Refuge, and the Village Group of Nagayagat (Nagamut alternative spelling), located inside the Togiak Wildlife Refuge.

A) How does the Department now propose to meet the remaining conveyances?

Response: The land desired by these villages to fulfill entitlement is not available under existing BLM authority and, as such, there are no administrative remedies to resolving the final entitlements for these villages. As indicated at the hearing before your Committee on S. 872, the Department would like to work with the Committee to find solutions.

B) Are you proposing to allow new inholdings or only provide deficiency lands elsewhere?

Response: BLM does not have authority to propose new inholdings as the lands are either owned by the State of Alaska (Nagamut) or managed by another federal agency (Kaktovik, Canyon Village).

C) How can deficiency lands many, many miles away from traditional hunting areas possibly work for the villagers of the three communities/ groups?

Response: BLM agrees that deficiency lands would likely not address the desires of each corporation.

Question 10: The proposed budget seeks a \$2 billion coastal climate resilience program, with \$400 million targeted to cover the “unique circumstances confronting vulnerable Alaskan communities, including relocation expenses for Alaska Native villages threatened by rising seas, coastal erosion and storm surges.” While I oppose your funding source, I was pleased to see the inclusions of village-related issues. But let me focus on the problems of one of those villages.

Shishmaref, in Northwest Alaska, is facing severe coastal erosion issues. To fight that erosion the town needs to use rock to build up its coastal defenses. But its only rock source is at Ear Mountain, south of the village, and unfortunately on the south side of the Bering Land Bridge National Preserve boundary. The village is seeking a road to be built across the panhandle of the preserve so that it can get to its only viable rock source. Under Title 11 of ANILCA, theoretically, the village is guaranteed transportation access across the CSU to gain its rock. The rock is urgently needed.

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- A) In light of the Administration's decision to provide funding for a coastal climate resilience program, will the Administration also provide an expedited approval process under Title 11 of ANILCA, or preferably other less time-consuming and costly administrative avenues, for the road needed by Shishmaref to gain rock to fight its coastal erosion problems?**

Response: The National Park Service (NPS) is aware of the proposed relocation of the village of Shishmaref, and the Bering Land Bridge National Preserve superintendent has been in communication with village representatives on this important matter. When the relocation occurs there will be a need for gravel/rock material. It remains to be determined what the best options are for obtaining these materials. One option would be to build a road from a new village site to Ear Mountain, which would cross approximately six miles of Bering Land Bridge National Preserve. Another option would be to obtain rock from an existing or new quarry and barge it to the new village. There is an operating quarry at Nome that may be the best and least expensive alternative. The various alternatives will need to be investigated as the village relocation project progresses. If it is determined that the best option for obtaining rock for the village relocation is construction of a road to Ear Mountain and development of a quarry there, the NPS will work with Shishmaref and others on the ANILCA Title 11 requirements for that project.

Question 11: The Cook Inlet Region Native Corporation in Alaska is about 42,000 acres shy of receiving its promised land entitlement under the Alaska Native Claims Settlement Act – an estimate your Department largely agreed with. CIRI has been seeking for well over a year for the Department to decide if it could make deficiencies lands in the Yukon Flats National Wildlife Refuge open for selection, since other lands in the refuge already have been conveyed to the Doyon Native Regional Corp. Apparently this issue has been awaiting a solicitor's opinion for more than six months.

- A) When will the Department decide on whether CIRI can select oil and gas lands inside Yukon Flats to settle most, if not all of its under conveyances?**
- B) If the Solicitor rules that such a selection is not currently legally possible, will the Department ask Congress to pass legislation to permit the selections, and if not, how does the Department intend to solve CIRI's under conveyance, whether by land or by other financial compensation? How soon will you decide?**

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Response: Decisions on matters related to this issue will be made after the legal analysis has been finalized by the Solicitor's Office, which we expect in the coming months, and reviewed by the Department.

Question 12: Federal land planning and management in Alaska is tenuous and never-ending process, and as I see it, specifically ignores ANILCA. The process results in outcomes that are biased against development. In addition, few Alaskans have the time, energy, and expertise to participate in these plans. Example: Bering Sea/Western Interior RMP contained 56 maps, 1,200 pages, and 63GB of data. Furthermore, this plan and similar plans exclude multiple use through ACECs, RNAs, others proposed closures.

A) What assurances will you provide to me that there will be balance for conservation and economic opportunity intended by ANILCA especially with respect to land management plans?

Response: It is BLM's obligation to facilitate responsible economic development on public lands while protecting natural and cultural resources. In Alaska, BLM manages approximately 72 million acres of public lands on behalf of the American people under the dual framework of multiple use and sustained yield. This framework supports the balanced stewardship of resources to support economic opportunity, innovation, and conservation, all areas core to the Department's mission.

Question 13:

A) Is the Department or any of its services engaged in any other new initiatives relating to the Arctic?

Response: The Department proposed an initiative to address the coastal resilience needs of villages in the Arctic that are threatened by coastal erosion and inundation. This initiative was approved by the Arctic Executive Steering Committee and DOI is the co-chair, with the Department of Housing and Urban Development, of a working group that is working closely with the Denali Commission to coordinate State and federal efforts to address not only the most acutely threatened villages – Kivalina, Newtok, Shaktoolik, and Shishmaref – but also other Alaska Native villages threatened by the rapid changes currently underway due to coastal and riparian erosion, melting permafrost, increased storm surge, and other climate-affected drivers.

The President's FY 2017 Budget includes \$3 million in the Bureau of Indian Affairs' Tribal Climate Resilience program to support Alaska Native Villages in the Arctic and other critically vulnerable communities to improve the long-term resilience of their

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communities. The funding will provide competitive awards to these communities to support critically vulnerable coastal Arctic communities and to help sustain tribal ecosystems supporting fish, wildlife, timber, and other natural resources, and critical subsistence and cultural resources. In addition, the Budget includes \$2 million in the BIA's Tribal Management/Development program to support and expand projects in targeted areas across Alaska that promote tribal cooperative management of fish and wildlife and improve access to subsistence resources on Federal lands and waters.

DOI is leading the climate resilience program of the US Chairmanship of the Arctic Council (<http://www.state.gov/e/oes/ocns/opa/arc/uschair/248957.htm>).

In 2015, the Administration announced the Arctic Youth Ambassador program to bring together Alaskan youth from urban and rural areas, including Alaska Natives, to share their perspectives, learn together, and prepare to become young stewards of the Arctic way of life. A joint project of the U.S. Fish and Wildlife Service, Alaska Geographic and the Department of State, the Arctic Youth Ambassador program provides 22 young Alaskans with both a chance to participate firsthand in U.S. Arctic diplomacy and a platform to share with the world their experiences of living at the top of the globe. Secretary Jewell met with the first four Arctic Youth Ambassadors during the GLACIER Conference, held in Anchorage, Alaska in August 2015. Since then the program has expanded to its intended 22 participants.

During March 2016, the Arctic Youth Ambassadors attended the Arctic Science Summit in Fairbanks. During this time they honed their vision for the future of the Arctic and collaborated with Model Arctic Council member peers from across global Arctic, including Canada, on relevant issues. Throughout the summer the Arctic Youth Ambassadors will be engaged in unique learning opportunities as well as video and radio projects with Alaska's Fish and Wildlife Refuges, the University of Alaska and the Wildlife Conservation Society.

Refuge Information Technicians and Student summer employment - The Fish and Wildlife Service, in cooperation with the National Fish and Wildlife Foundation, the Alaska Native Science and Engineering Program (ANSEP) of the University of Alaska Anchorage, and the Rasmuson Foundation, established a 3-year program of advisor positions (known as "Refuge Information Technicians" or "RITs") and summer employment for ANSEP students. This program will help bridge the gap between Alaska Native communities, conservation science, and natural resource management. The first RIT was selected in March 2015 and the goal is to employ five RITs annually. In

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addition, 10 ANSEP students were selected in 2015, and an additional 16 students are expected to be employed in 2016.

DOI is also leading an interagency effort to develop a strategy for the prevention and management of invasive species in the Arctic. The interagency effort includes several representatives from the State of Alaska. The group is working to identify risks associated with human activity and to identify and map invasive species pathways. The interagency group is also evaluating activities and policies for managing invasive species and identifying best practices.

B) Similarly, is the Department or any of its services currently considering or drafting any new regulations specifically related to the Arctic?

Response: The Department's most recent agency rule list is contained in the Administration's Regulatory Plan and Unified Agenda, which can be found at http://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST¤tPub=true&agencyCode=&showStage=active&agencyCd=1000&Image58.x=48&Image58.y=16&Image58=Submit. In addition, long-term regulatory actions proposed to be taken by the Department are found here: http://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST¤tPubId=201604&showStage=longterm&agencyCd=1000&Image58.x=33&Image58.y=12&Image58=Submit.

Question 14: Recently, U.S. Fish and Wildlife Service and National Marine Fisheries Service finalized to regulations relating to designating critical habitat.

(Adverse Modification rule:

http://www.fws.gov/endangered/improving_ESA/pdf/20160201%20AdMod%20Final%20to%20OFR.pdf ; Clarifying criteria for designating critical habitat:

http://www.fws.gov/endangered/improving_ESA/pdf/20160201%20424.12%20rule%20final%20to%20OFR.pdf ; Policy on 4(b)(2):

http://www.fws.gov/endangered/improving_ESA/pdf/20160201%204%28b%29%282%29%20policy%20to%20OFR.pdf)

These new regulations allow the Services to designate unoccupied critical habitat without first exhausting occupied critical habitat and to designate unoccupied critical habitat that currently lacks essential habitat features on the expectation that those features will develop in the future.

A) Do these regulations represent a new policy approach to designating critical habitat?

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Response: As a result of numerous court decisions regarding the designation of critical habitat, the Services have gained considerable experience related to this process. As indicated in the published final rule, among other things, the revised regulations clarify the criteria and procedures for designating critical habitat and are intended to clarify expectations regarding critical habitat and provide for a more predictable and transparent designation process. Nothing in these final revised regulations is intended to require that any previously designated critical habitat be reevaluated.

Question 15: Former Deputy Secretary David Hayes issued a report titled “Managing for the Future in a Rapidly Changing Arctic – A Report to the President,” Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska.” That report provided several recommendations to advance an integrated and transparent approach to resource management in Alaska. Specifically, the recommendations were to: adopt an Integrated Arctic Management approach when making stewardship and development decisions affecting the U.S. Arctic; ensure ongoing high-level White House leadership on Arctic issues; strengthen key partnerships; promote better stakeholder engagement; and coordinate and streamline federal actions.

A) What is the Department doing to implement these five recommendations?

Response: The Arctic Report’s recommendations were for the federal government, not just the Department, and are being implemented as follows:

- *Adopt an Integrated Arctic Management (IAM) approach when making stewardship and development decisions affecting the US Arctic.* As a result of extensive Departmental engagement and effort, IAM was formally adopted in the National Strategy for the Arctic Region (NSAR), Line of Effort 2.
- *Ensure ongoing high-level White House leadership on Arctic issues.* Subsequent to the release of the Arctic Report, the Department worked closely with the White House to advance the NSAR and the NSAR implementation plan. The NSAR was soon followed by an Executive Order that established the Arctic Executive Steering Committee, upon which the Department sits (Chief of Staff Tommy Beaudreau) and plays a substantial role, particularly as relates to energy exploration and community resilience issues. Former Ambassador Mark Brzezinski is the Executive Director of the Steering Committee.
- *Strengthen key partnerships.* The Department has worked very closely with State of Alaska agency personnel and the Governor’s and Lieutenant Governor’s

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offices on community resilience issues, establishing new relationships and funding State efforts as they relate to vulnerable Arctic communities. The same is true for Alaska Native partners, who are deeply engaged in the same resilience issues being led by the Department and the State. The Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, led by the Department, has continued to ensure that State representatives are at the table and fully engaged for interagency permitting discussions in the region.

- *Promote better stakeholder engagement.* While agencies have given priority to improving relationships with the State and the Native community, there are several actionable milestones for this recommendation with 2016 due dates in the newly released revision to the NSAR Implementation Plan.
- *Coordinate and streamline federal actions.* There were 2 specific components of this recommendation – Linking Science and Management, and Environmental Evaluations. For the former, the Interagency Arctic Research Policy committee (IARPC), on which the Department serves, is in the process of revising its 5-year research plan to focus more on management needs, including enhancing the well-being of Arctic residents and advancing stewardship of the Arctic environment. On the latter, EPA is leading an informal interagency group consisting of EPA, the Department, and the National Oceanic and Atmospheric Administration that will develop common criteria for development and use of risk assessments for National Environmental Policy Act reviews in the Arctic in the coming months. This is also an actionable milestone in the newly released revision to the NSAR Implementation Plan.

Question 16: According to the Department’s Fact Sheet: Modernizing the Federal Coal Program, dated January 16, 2016, one of the questions reportedly discussed in listening sessions regarding the Department’s coal program was how does the Department “manage the program in a way that is consistent with (DOI’s) climate change objectives.”

A) Were these objectives passed by Congress or an Executive Order?

Response: The Administration has made, and is continuing to make, unprecedented efforts to reduce GHG emissions through numerous measures. All actions taken by the Department and its bureaus must and will be consistent with applicable statutory authorizations.

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- B) The “temporary pause” to coal leasing was said to be done so the Department could study fiscal terms and leasing mechanisms. Will these studies now be done, and will industry participate?**

Response: The Secretarial Order directed BLM to conduct a robust Programmatic Environmental Impact Statement that will identify, evaluate, and potentially recommend reforms to the Federal coal program. The scope of the review will be informed by robust public participation opportunities, including hearings and the solicitation of comments and proposals from the public and all stakeholders, including industry.

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Questions from Ranking Member Cantwell

Question 1: The proposed FY2017 budget for the Office of Insular Areas does not recommend any increase in funding assistance to the affected areas of Hawaii, Guam, the CNMI and American Samoa in response to the increased demand on local services by Compact migrants.

If the Administration is not willing to request additional funding, then does it support the enactment of legislation that would restore the treatment of these compact migrants under Medicaid as had been provided under federal law in 1986, at the time the Compact went into effect, but which was terminated under the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996? Would you please provide a drafting service of legislation to restore this Medicaid eligibility?

Response: There is no question that the impact of the Compact of Free Associations on the affected jurisdictions Guam, Hawaii, the Northern Mariana Islands and American Samoa, is significant. The \$30 million in mandatory funding and the \$3 million in discretionary funding in the President's FY 2017 budget request is a positive step toward defraying some of the costs borne by affected jurisdictions. Any modification of the \$30 million in mandatory funding would require legislative action.

The Administration has not taken a position on legislation that would restore the treatment of Compact migrants under Medicaid, e.g., S. 1301, the Restoring Medicaid for Compact of Free Association Migrants Act of 2015. We would be pleased to consult with the Department of Health and Human Services and other relevant agencies about developing an Administration position on the bill at the appropriate time, and would be happy to work with you to provide any additional technical assistance you may need.

Question 2: The two fish processing facilities in American Samoa constitute nearly all of the private sector economic activity in American Samoa. However, the operators of these facilities have met with Committee staff to say that their future economic viability is in doubt because of high wage rates, foreign competition, lack of tax incentives, lack of access to fish, and other factors.

Would you please provide a summary of the factors that you believe are putting the economic viability of these canneries at risk, and provide your recommendations for addressing them in a way that restores their viability?

Has the Department or the American Samoa Government made any specific plans on what economic activity would replace fish processing if these two canneries were to depart American Samoa within the next few years?

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Response: A number of factors threaten the economic viability of the canneries in American Samoa. The global price of tuna has declined, reducing the value of the duty free advantage that the American Samoa-based StarKist and Tri-Marine canneries have had over their Asian competitors.

Both the American Samoa Government and the private sector have expressed concern about competition with the American Samoan canneries by those in Southeast Asia, where wages and the costs of production are much lower.

We have heard concern about access to fishing waters, for example, due to a dispute involving the South Pacific Tuna Treaty (SPTT), the American tuna fishing fleet was prohibited from fishing in a vast area of the Pacific during the beginning of 2016. Only recently, on March 3, 2016, did the impasse finally clear with an amendment to the interim treaty. Further negotiation will be necessary for the U.S. fishing fleet to continue fishing beyond 2016.

The Office of Insular Affairs has supported the American Samoa Government's development of tourism to diversify its economy through its various funding programs. In fiscal year 2015, OIA awarded \$270,000 in technical assistance program (TAP) funding to the American Samoa Visitor's Bureau for tourism marketing support and the demolition of the defunct Rainmaker Hotel, and \$105,000 to solicit investors interested in building a replacement luxury hotel. In fiscal year 2013, OIA also awarded \$350,000 for the development of the inner harbor in Pago Pago.

In assisting the ASG on the transportation front, OIA has awarded \$9 million in Capital Improvement Program funding to construct a new Service Wharf for smaller passenger vessels. OIA also awarded \$9 million for designing and building of a new passenger and cargo multi-purpose vessel to be used between the islands of Tutuila and Manu'a that will improve surface transportation and encourage economic development in Manu'a. Other projects include the design and construction of the Ofu Wharf in Manu'a, and the relocation of the airport tank farm, a mandate by the Federal Aviation Administration and the Department of Homeland Security.

Question 3: Representatives of the Judicial Training Program have met with Committee staff expressing their concern about OIA's continued commitment to and funding for the Judicial Training Program.

How long has OIA been funding judicial training under the Compacts and the Technical Assistance Program?

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Would you please provide a summary of the number of judicial officials from each Pacific jurisdiction who have been trained under this program?

Would you please assure the Committee of your continued funding and support for this program in the future? Or, describe, specifically, where these jurisdictions would obtain this vital training without OIA support?

Response: OIA has been funding judicial training under the TAP program since 2001 and under the Compact of Free Association since 2004. Under this program, approximately 169 judicial officials are trained each year. Based upon 2015 records, training included ten for American Samoa, seventeen for the Northern Mariana Islands, twenty-four for Guam, eight for Palau, sixteen for the Marshall Islands, forty for the Federated States of Micronesia Supreme Court, seventeen for Chuuk, sixteen for Pohnpei, eight for Kosrae, and thirteen for Yap.

Funding for the FSM and RMI are statutorily required under the Compact agreement. Under the reimbursable support agreement with the Judicial Training Program, OIA will continue to consider funding based on prioritization of funding needs by the jurisdictions. Individual jurisdictions could also consider utilizing local funding to support judicial training needs. As an example, American Samoa Governor Lolo Moliga included a budget item for \$200,000 for judicial training in the supplemental budget that was recently passed by the Fono, the American Samoa legislature.

Question 4: The proposed FY2017 budget for the Office of Insular Affairs shows that the USVI is expected to receive \$209 million in rum excise taxes in FY2017. However, as an incentive to locate in the U.S. Virgin Islands, the government there offered to pass 45 percent of this revenue through to the local rum producers. This policy effectively reduced revenues to the Virgin Island by about \$100 million per year.

Would you please tell the Committee how much money was paid by the Government of the Virgin Islands to producers in FY2016?

Does the Department recommend that Congress enact legislation requiring that all federal rum excise tax payments be deposited into and retained in the Treasury of the US Virgin Islands?

If so, please provide a drafting service of legislation that would require that all federal rum excise tax payments shall be deposited into and retained in the Treasury of the US Virgin Islands.

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Response: The Department of the Interior does not receive information on how much the Government of the Virgin Islands pays producers each year. The Department was not involved in the U.S. Virgin Islands' negotiations or decision to provide incentives to the producers. The Department receives reports on the actual monthly rum excise tax collections from the U.S. Department of the Treasury, Alcohol, and Tobacco Tax and Trade Bureau.

We would be pleased to work with appropriate federal agencies to develop an Administration position on such legislation at the appropriate time.

Question 5: On page 103, the budget request for the Office of Insular Affairs presents the schedule of mandatory payments to be made to Micronesia and the Marshall Islands under the Compacts of Free Association. These payments are scheduled end after fiscal year 2023 and I am concerned by articles in the press that many people apparently believe that the Compacts themselves also terminate after fiscal year 2023.

Would you please reaffirm that the Compacts do not terminate at the end of fiscal year 2023 with the end of the annual mandatory payments, but that the Compacts can only be terminated pursuant to the terms for termination as set forth in Article IV of Title Four of the Compacts?

Would you please describe the effect that termination of the Compacts would have on Title One, Article IV of the Compacts regarding immigration?

Would you please describe how economic relations set forth under each section of Title Two of the Compacts will change at the end of fiscal year 2023 including a description of the movement of funds from the Trust Fund established under section 215 into the several sector grants, the continued role of the respective joint economic management committees, and any planning and oversight mechanisms for both U.S. financial and program assistance?

Response: The Compacts of Free Association may only be terminated by mutual agreement between the U.S. government and the FSM and RMI governments, respectively, in accordance with their respective constitutional processes; the U.S. government in accordance with its constitutional processes not earlier than six months following delivery of notice; or the respective FSM or RMI governments in accordance with their constitutional processes if their respective peoples, through plebiscite process, vote to terminate the Compact. Whether by mutual agreement or unilateral action by either the FSM or the RMI governments, neither action shall enter into force until after the U.S. Congress has incorporated it in an Act of Congress.

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Termination of a Compact for Free Association, as amended, would result in the termination of that Compact, as amended, entirely, including any privilege for an FSM or RMI citizen to be admitted lawfully to engage in occupations, and to establish residence as a nonimmigrant in the United States and its territories and possessions without regard for visa.

The Administrative Provisions, Trade and Finance and Taxation Articles of Title Two of the Compacts of Free Association (PL 108-188) will not be affected by changes occurring after the end of fiscal year 2023. The changes in Grant Assistance (Article I) and Services and Program Assistance (Article II) following the end of fiscal year 2023 will be dictated by Title Two of PL 108-188. For example, after fiscal year 2023, no new U.S. sector grant assistance will be available for education, health care, private sector development, the environment, public sector capacity building, and public infrastructure under Compact section 211.

Unique to the RMI, the terms of the Military Use and Operating Rights Agreement require that funding under sections 211(b)(1), 211(b)(2), 211(b)(3) and section 212 will continue until the end of fiscal year 2066 to provide funding for Kwajalein Atoll, Kwajalein special needs, environmental studies at Kwajalein and for Kwajalein impact and use.

With regard to the role of the joint economic management committees, to the extent that any section 211 grant funding remains unspent in fiscal year 2023, the provisions of the Fiscal Procedures Agreement will remain in effect unless terminated by mutual agreement. The Administration is reviewing the extent to which the joint economic management committees will be utilized in the post-2023 era.

As for the Trust Fund for the People of the Federated States of Micronesia and the Trust Fund for the People of the Republic of the Marshall Islands the issue of future distributions to the respective governments is under discussion within the Administration in accordance with the trust fund agreements.

Question 6: Last summer, Tribes in Washington State experienced one of the worst wildfire seasons ever. Tribes across the West have asked for \$55 million for post-fire rehabilitation over 5 years (FYs 2016-2020) to salvage some value from the fires, stabilize the soils, and get new trees planted in the ground. However, only 6% of this request is being funded by the Department's Burned Area Rehabilitation program. The Colville Reservation, in particular, did not have enough staff or funding directed to it. Though the dead trees still hold monetary value for the Tribe for a short time, there is an insufficient amount of Bureau of Indian Affairs (BIA)

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staffing to organize the contracts to get the dead trees cut and brought to a sawmill. Again, there is a short timetable for this work, and failure to act will negatively impact Tribes, like the Colville, for a generation to come. The Usk sawmill (one of the nearby mills, owned by Vaagan Bros.) had to close last month because of an insufficient supply of logs.

These fires have cost lives, destroyed homes, threatened communities, and devastated the livelihood of thousands. I am deeply concerned about the future of the communities affected, and of particular concern is the Colville Reservation. They are an entity that we both share a responsibility toward.

I am deeply concerned that funds for the recovery of the areas burned on the Colville Reservation have been insufficient given the enormity of the restoration task ahead. The Tribe lost almost a quarter of its forests—that's almost \$1 billion in dead trees still standing but losing value every week.

I saw that the Administration is proposing a substantial increase in the Department of the Interior's Burned Area Recovery Program—a 17% increase. I assume that increase was proposed because of the shortfall we experienced last year. I know the Burned Area Recovery program helps communities the first couple years after they experience a wildfire. Would some of that proposed increase be made available to help places that burned in last year's fires, like the Colville Reservation?

The Department of the Interior is working on a "Risk-Based Wildland Fire Management Model," which is great. But I need to ensure that the model treats Tribes fairly and recognizes tribal sovereignty and federal trust responsibilities. Can you commit to personally taking steps to improve how this model accounts for tribal lands, as well as to improving consultation with Tribes and tribal organizations in the development of the model?

Response: The FY 2017 budget request proposes an increase for the Burned Area Rehabilitation program of \$1.5 million above the 2016 enacted budget. Funding is intended to address greater post fire rehabilitation needs caused by the 2015 and 2016 fire seasons. The additional funds will enable treatments to commence more quickly after damage occurs. This can help reduce project costs, as post-wildfire conditions can degrade, and are therefore more expensive to treat, the longer treatment initiation is delayed.

The BIA-Division of Forestry and Wildland Fire Management has been working with the Office of Wildland Fire (OWF) on this issue since the end of the 2015 fire season, and BIA allocates Burned Area Rehabilitation funding it receives from OWF, \$3.6M in FY16, to impacted tribes, including to the Colville Tribe. The FY 2017 budget request also proposes additional funding for tribal firefighting vehicles.

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Regarding the Risk-based Wildland Fire Management model, the OWF conducted both formal consultation and informal engagement with Tribes on the approach, including:

- Formal Consultation October 14, 2014 - January 9, 2015; teleconference on November 14, 2014
- Formal Consultation July 20 - August 3, 2015; field meetings in Albuquerque, NM - July 21, 2015; Spokane, WA - July 23, 2015; Webinar - August 13, 2015
- Informal updates on quarterly calls with Intertribal Timber Council Fire Subcommittee (November 14, December 9 - 2014; February 10, , April 21, September 15, December 8 - 2015)
- Day-long session at National Indian Timber Symposium (June 8, 2015)

Comments from the consultations were summarized and responses to commenting tribes were provided and posted on BIA's website. Additional background information about Risk-Based Wildland Fire Management was also made available on the same website, which can be accessed here: <https://www.doi.gov/wildlandfire/government-government-consultations>.

The Department remains committed to recognizing tribal sovereignty, promoting tribal self-determination, and fulfilling its federal trust responsibility, and will continue to consult with Tribes as it develops the Risk-Based Wildland Fire Management Model.

Question 7: There is tremendous support in the Tri-Cities communities in my state for the recent designation of the Manhattan Project National Historical Park. The communities want to ensure that a National Park Service presence is in place as soon as possible to provide educational and public interpretation for visitors to the site and to work with the local communities to develop a robust visitor experience. The requested budget for the Manhattan Project National Historical Park is \$691,000 for FY 2017 – an increase of \$350,000 from FY 2016.

Is this increase sufficient to provide adequate staffing for the Hanford unit of the park?

Would you please tell the Committee when there will be a site manager assigned to the Hanford unit?

Response: The FY 2017 budget request of \$691,000 would provide sufficient funding for appropriate initial staff at each of the three park locations. This level of funding would allow for a Superintendent, three site managers, and additional interpretive staff.

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Assuming full funding of the FY 2017 request, we expect to have site managers in place at all three locations in 2017. We are also providing interpretive training to tour docents at Hanford this year, which began with a workshop on March 29 led by several experienced NPS interpreters.

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Questions from Sen. Barrasso

Question 1: Last September, your agency published landscape-scale conservation plans for sage grouse habitat across 11 western states. These plans are controversial in light of the successful conservation work already undertaken by states like Wyoming. We have seen repeated failures when the federal government attempts to manage wildlife. We are now five months into the Fish and Wildlife's decision to unnecessarily restrict millions of acres of public lands in the name of sage grouse conservation, and yet your agency has still not issued guidance documents directing how—or when—local BLM staff should implement conservation. When will your agency issue these guidance documents and will these guidance documents ensure flexible and geographically unique conservation?

Response: The BLM Resource Management Plans were developed in coordination with the USDA Forest Service and the US Fish and Wildlife Service and collaboration with the states within the remaining range of the Greater sage grouse. The federal plans provide a consistent framework for conserving the Greater sage grouse by addressing threats to the species identified by various studies and reports including the Report of the Conservation Objectives Team (COT). The COT report was developed in response to direction from the Sage Grouse Task Force (SGTF) which is co-chaired by Governor Meade, Governor Hickenlooper and the Director of the BLM. At the same time, the BLM RMPs were built on the foundation of individual state plans for sage grouse conservation to reflect different resource conditions, threats, and strategies for protecting sage grouse habitat devised by each state.

As a result, the BLM Oregon plan uses an all lands approach while the Idaho plan identified three distinct categories of habitat for the Greater sage grouse as opposed to the two adopted by all other states. The Wyoming BLM plan incorporated, with minor changes, the core area strategy that was adopted by Governor Meade by Executive Order and built on the strategy that was originally developed by Governor Freudenthal.

The federal plans largely incorporate the measures for habitat conservation that were developed by the states but add certain measures to further strengthen the rangewide strategy that was ultimately found to be adequate to determine that listing the Greater sage grouse under the Endangered Species Act was not warranted at this time. The BLM and the Forest Service are responsible for land and resource management on the lands that they administer and, in so doing, are responsible for habitat management for the Greater sage grouse and other wildlife species that utilize federal lands.

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With regard to guidance for implementation of the plans, consistent with the Records of Decision (ROD) for the RMPs, the BLM is preparing guidance for various aspects of plan implementation. We have shared draft guidance on key aspects of plan implementation with our state partners and, after having the benefit of their recommendations, expect this guidance to be made more broadly available. We expect that this guidance will recognize site-specific conditions consistent with the flexibility that was built into the BLM RMPs.

Question 2: The Department has proposed a budget cap adjustment to increase funds for wildfire suppression and a \$5 million increase in implementing the National Seed Strategy, yet there is little attention paid to factors under your control that cause widespread harm and lead to prime wildfire conditions. In Wyoming and many other states, overstocked wild horse and burro populations cause considerable damage to land and water resources under your care. I wrote to your agency in November about this very issue. Other than your legislative proposal which effectively abdicates the Department's responsibility for management of these horses, can you tell me what action the Department will take this year to decrease wild horse populations and halt resource degradation?

Response: BLM faces many challenges in managing wild horse and burro populations on public rangelands, including a rapid population growth rate and no natural predators.

Because of the extraordinary growth rate of wild horse and burro herds, as well as the dramatic reduction in horse adoption rates, the BLM is now managing more than twice as many horses on the western rangelands as is recommended for a healthy balance between horses, wildlife, cattle and other resources. Nearly the same number of horses -- around 47,000 -- have already been removed from the rangelands due to the harmful effects of overpopulation on the health of both the animals and the rangelands. These off-range animals are now being fed and cared for on leased pastures or in corrals. Horses that are removed from the range but remain in the care of the agency typically cost the American taxpayer nearly \$50,000 per animal over the animal's lifetime; put simply, the costs of this program are substantial and unsustainable.

To reduce the need for off-range pastures and corrals, the BLM is broadening its efforts to increase adoptions, including seeking new authority to more efficiently transfer animals to local, State, and other Federal agencies that use them for official purposes. For instance, the U.S. Border Patrol has adopted nearly 300 horses over the past decade. While contraceptive birth control methods currently in use can be improved upon (and BLM is working to develop new tools for better wild horse and burro management), given the severity of the current situation, BLM is committed to taking more aggressive

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action to expand their use, and will also increase the application of spay and neuter treatments. Much of this direct action will begin in 2016, and will continue to be supported by the agency's on-going general research efforts to improve the available tools for population control.

In 2016, BLM anticipates removing about 3,500 wild horses and burros from the range. Removals are prioritized due the limited corral space and will be for public health and safety (i.e., animals on the highway, in agricultural fields); private land encroachment; emergencies; Greater Sage-Grouse Focal Areas; and court orders. As part of the priority removals, a gather was completed in November 2015 in Oregon's Beaty Butte HMA where 1,070 horses were removed to reduce impact to the range.

Question 3: The President has made it clear that he intends to unilaterally designate numerous new national monuments comprising hundreds of thousands of acres of land in the West. Mike Connor, Deputy Secretary of the Interior, has stated in response to a question for the record from me about federal versus state water rights that the Bureau of Reclamation would comply with state water law "unless state laws are inconsistent with clear Congressional directives." If the President designates all these new national monuments unilaterally, meaning Congress gave no clear directive to create these specific monuments, does that still mean that these monuments will have reserved federal water rights that can trump state water rights?

Response: The designation of a national monument by Presidential Proclamation does not alter or affect the valid existing water rights of any party, including the United States. While there are often no federally reserved water rights associated with monument designations, through the establishment of a national monument, the federal government may reserve unappropriated waters appurtenant to the land to the extent necessary for the requirements and purposes of the monument. Water appropriated through state law that has an earlier priority date to the national monument would retain that priority.

Question 4: Has your agency looked at the impact to western water law of potential national monument designations if these designations come with reserved federal water rights?

Response: As indicated in the previous response, in instances where land owned or controlled by the U.S. has perfected federal reserved water rights, those water rights and associated priority date would continue upon the establishment of the monument. In instances where a national monument comes with a federal reserved water right, the United States would seek to secure those rights through procedures set forth by the law of

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the state in which the monument is located, or in certain circumstances through federal procedures.

Question 5: Mike Connor, Deputy Secretary of the Interior, has stated in response to a question for the record from me about federal versus state water rights that the Bureau of Reclamation would comply with state water law “unless state laws are inconsistent with clear Congressional directives.” What is a clear Congressional directive in your mind?

Response: One example is section 5 of the Boulder Canyon Project Act. In 1963, the Supreme Court held “that it is the [Boulder Canyon Project] Act and the Secretary’s contracts, not the law of prior appropriation, that control the apportionment of water among the [Lower Basin] States. Moreover...we hold that the Secretary in choosing between users within each State and in settling the terms of his contracts is not bound by these sections to follow state law. Thus, the Supreme Court upheld congress’ authority to apportion water in certain circumstances in *Arizona v. California*, and this principle has determined Lower Colorado River allocations for over 50 years.

Question 6: Congress enacted the Tribal Law and Order Act of 2010 to improve public safety in Indian Country. One of the requirements was for the Department of the Interior to submit to Congress an annual spending and unmet needs report for law enforcement in tribal communities. In the five and a half years since the Act was passed, we have only received one report. Your acting Assistant Secretary for Indian Affairs testified last December before the Indian Affairs Committee, which I chair, that the second report is still under review. It is unacceptable to both Congress and Indian Country that this information continues to be withheld from us. What will you do to ensure that report gets delivered to Congress immediately?

Response: We are working diligently to provide a report with solid methodology and accurate data as soon as possible. The draft report currently under review expands the scope from the last report to include cost estimates for all 566 federally-recognized tribes, including those tribes in states subject to full or partial (concurrent) State criminal jurisdiction under P.L. 83-280, recognizing that TLOA expanded tribal responsibilities in public safety and justice programs regardless of P.L. 280 designation. The Tribal Law and Order Act recognizes that accurate data is essential for the development of effective public safety strategies. The ongoing review is intended to ensure the quality of data in the report, the validity of the methodologies used to calculate the unmet need estimates, and the presentation of data in an appropriate context. This information will potentially enable more informed decision-making, although the full scope of “unmet needs” cannot be addressed without considering non-BIA sources of funding, such as Department of Justice funding on the federal side.

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Question 7: In June 2015, the Government Accountability Office issued a report on Indian energy entitled “Poor Management by the Bureau of Indian Affairs Has Hindered Energy Development on Indian Lands”. In October 2015, the GAO testified before the Indian Affairs Committee that a consequence of the BIA’s mismanagement is that numerous energy development projects languish for months or even years without proper review and without appropriate communication or explanation for such delays. The GAO further testified the BIA employees responsible for reviewing these projects have not received the support they need from the BIA headquarters or the Department of the Interior to build the capacity needed to perform these required tasks.

More recently, a February 2016 Report by the Department’s Inspector General found rather troubling records of mismanagement in at least one BIA agency responsible for significant energy activities. All of these problems add up to losses to the tribes – in one case to the tune of nearly \$95 million. When will these issues, identified in the reports, be definitively addressed so tribes may develop their resources unimpeded by Departmental bureaucracy or mismanagement?

Response: The Department is in the process of opening the Indian Energy Service Center (IESC). The IESC will provide critical assistance within the Department for the purpose of encouraging energy development and providing the necessary resources to ensure timely development, review, and processing of energy related projects. The IESC will provide additional resources for BIA, BLM, ONRR, and OST to ensure the Department fulfills its duties in the development of energy projects on Trust lands.

The Center co-location of participating Bureaus and Offices will benefit not only individual tribes and individual land owners, but also the federal government by streamlining the workload that may otherwise be delayed at the local level due to critical staffing shortfalls and the absence of technical assistance. The most significant benefit to all participating organizations is the ability to engage the existing or prospective mineral estate owners more efficiently throughout the mineral development process.

The Indian Energy Service Center was funded at \$4.5 million in the FY 2016 budget. This funding is critical to implementation of the IESC’s objectives and hiring the staff required to meet all the commitments to oil and gas and renewable energy development on Indian lands. It is anticipated the IESC will be fully operational by the end of FY 2017. The Department has again requested \$4.5 million for the IESC in the FY 2017 budget request.

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With regard to the IG report related to Agency Records, significant progress has been made in addressing the corrective action plan associated with the report's recommendations. For example, the BIA took actions to improve the condition of the land records. These actions included classifying labeling files with the correct General Records Schedule series number, creating file maintenance plans, establishing safe-guarding procedures for property records access, and providing training to appropriate personnel on Records Management. In addition, protocols have been established for Tribal requests for records.

Question 8: In your written testimony, you discussed the President's so-called "POWER+ Plan". You stated that: "The budget proposes to allocate a portion of the remaining unappropriated balance of the Abandoned Mine Lands Fund to target the cleanup and redevelopment of AML sites and AML coal mine polluted waters in a manner that facilitates sustainable revitalization in economically depressed coalfield communities."

You go on to say that: "The proposal will provide \$1.0 billion over five years to States based on AML program and economic eligibility factors—such as the unemployment rate of coal mining regions—and remaining priority coal problems, including abandoned mine drainage, where reclamation linked to job creating economic development strategies will help revitalize impacted communities." Has the Department made any preliminary estimates concerning how this money would be distributed among "coalfield communities", states, or regions of the country? If so, please provide these estimates.

Response: The goal is to distribute \$200 million per year for five years to states and tribes based on their historic coal production. The proposal would target funds to projects based on existing AML Program criteria, including treatment of abandoned mine drainage, that are located in economically distressed communities and that facilitate economic and community development.

While there are no specific estimates for how the funds would be distributed under the Administration's proposal, OSMRE developed the attached estimates of potential funding associated with H.R. 4456, the RECLAIM Act of 2016.

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Questions from Sen. Wyden

Question 1: Madame Secretary, as you know, the Klamath Basin has been struggling over the last decade or more to manage its scarce water resources. Several years ago I brought together a diverse group of stakeholders to find a path forward, and in a great showing of compromise and good-faith efforts, they did just that. The Klamath Basin Agreements represent true collaboration, and I was disappointed that Congress didn't pass my Klamath bill last year. Now that the Klamath Basin Restoration Agreement, the KBRA, has expired, the stakeholder groups are concerned about their future, and so am I. There are several components of the bill that need to move forward in order to provide the Basin with the certainty it deserves – land for the Klamath Tribes, water certainty for irrigators, and sufficient water for fish and wildlife. The Bureau of Reclamation is moving forward with dam removal through the Federal Energy Regulatory Committee (FERC) process, but I would like an update on how the Department of Interior is assisting to resolve all the issues facing the Klamath Basin, not just dam removal, and how you plan to continue working in the Basin and with Congress to resolve these thorny issues.

Response: Following the expiration of the Klamath Basin Restoration Agreement at the end of 2015, the Department remains focused on working to identify a comprehensive solution for water, fishery, and power issues in the Klamath Basin. Parties to the Klamath Hydroelectric Settlement Agreement, along with the Department, have since convened discussions to find a path forward in the Basin. These discussions recently culminated in the signature of a new Klamath Hydroelectric Settlement Agreement, which establishes a new process to decommission four dams on the Klamath River, and the 2016 Klamath Power and Facilities Agreement that would avoid potentially adverse financial and regulatory impacts associated with the return of fish runs to the Upper Klamath Basin.

The Department continues to pursue consensus on elements of the restoration agreement. Specifically, the new agreements acknowledge that additional work is necessary to fully restore the Klamath Basin, advance the recovery of its fisheries, uphold trust responsibilities to the tribes, and sustain the region's farming and ranching economy. The Department remains committed to actively cooperate with all Klamath Basin stakeholders – Members of Congress, tribes, farmers and others – to identify comprehensive solutions to these issues.

Question 2: As you may know, there is an effort underway in Oregon to build a 500 kilovolt (kV) transmission line that will run from Boardman, Oregon to Hemingway, Idaho, known as the Boardman to Hemingway, or "B2H," line. The

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line is currently undergoing NEPA review by the Bureau of Land Management, and some community members have expressed concern about the effects of this project on their communities. Secretary Jewell, are you confident the BLM has adequately assessed the impacts of this project on the Oregon communities it passes through? Can you provide me with information on how you believe this transmission line will help or harm these communities?

Response: As indicated in your question, the project is currently undergoing a comprehensive environmental review and no final determinations have been made. BLM is now reviewing comments received during the public comment period, including comments submitted from local stakeholders, landowners, counties, and municipalities, and is developing responses to the issues raised. BLM has also been collaborating with the formal cooperating agencies, and the preliminary agency preferred alternative will reflect those collaborative efforts.

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Questions from Sen. Risch

Question 1: The National Science Foundation (NSF) currently operates a network of 25 Long Term Ecological Research (LTER) Sites. According to NSF, "LTER research is located at specific sites chosen to represent major ecosystem types or natural biomes and it emphasizes the study of phenomena over long periods of time based on data collection in five core areas: 1) patterns and controls of primary production, 2) spatial and temporal population dynamics and food web interactions, 3) patterns and controls of organic matter accumulation and decomposition, 4) patterns of inorganic inputs and movements of nutrients and 5) patterns and frequency of disturbances. Research at LTER sites must...significantly advance understanding of the long-term dynamics of populations, communities and ecosystems." In view of the scientific research on sagebrush steppe and the many questions that are likely to present over the upcoming years, would it be useful to have an LTER for sagebrush steppe or a similar effort through a DOI agency?

Response: LTER sites have provided a mechanism for developing and maintaining the sustained effort necessary to understand long-term changes in ecosystems, and Departmental agencies, in coordination with state agencies, are currently discussing locations across the sagebrush steppe to monitor sagebrush-associated wildlife and vegetation conditions that could serve some functions of an LTER. While a broad-based effort that covers the range of unique features of the sagebrush steppe would advance understanding of long-term changes, LTER sites have traditionally collected information at a representative location for the ecosystem of interest. The broad range of conditions that are indicative of the sagebrush steppe in the 11 western states would make it difficult to have only a single site in this system.

Question 2: What is your plan to collect and manage data on scientific research conducted on the sagebrush steppe and what are your plans in terms of modelling that data?

Response: The USGS in collaboration with the other federal and state agencies, developed a national research strategy for greater sage-grouse and sagebrush steppe. This strategy is helping guide Departmental research and modeling needed to address the scientific needs for the sagebrush steppe. These research efforts are guided by standards for data collection, management, analysis, and peer review prior to publication and release. Several ongoing research efforts are modeling and synthesizing data to understand current and future conditions that can be incorporated into conservation, management, and restoration of the sagebrush steppe.

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Questions from Sen. Lee

Question 1: The Bureau of Land Management (BLM) has required some of Utah's ranchers to share its water ownership interest. The described purpose of this order is to guarantee that water remains on grazing allotments, which will supposedly guarantee future livestock grazing. Livestock grazing permits require permittees to maintain their water developments and facilities to assure proper use of their allotment. Conditional permits, where the BLM requires an ownership interest in the livestock water right, creates a tremendous conflict. Either the grazing permittee acquiesces to the BLM requirements, or in saying no understands that he will likely not meet the maintenance obligation and will be found in "non-compliance" of permit requirements. This policy runs contrary to federal and Utah state law:

- a. The federal land management agencies have a defined legal obligation to honor state law under Title VII Sec. 701 of the Federal Land Policy Management Act (FLPMA) states:**

(g) Nothing in this act shall be construed as limiting or restricting the power and authority of the United States or-
(2) as expanding or diminishing Federal or State jurisdiction, responsibility, interests, or rights in water resources development or control.

- b. Under Utah state law, and as prescribed by the Idaho Supreme Court (Joyce Livestock vs United States - 2007) it is determined that livestock water cannot be put to beneficial use by the federal agency. Utah law, in the Livestock Water Rights Act explicitly defines that the permittee, authorized to graze livestock on the prescribed allotment holds the ownership right to water. In addition, the federal land management agencies cannot meet the beneficial use standard, therefore cannot possess a livestock water right, even on public lands.**

How does the BLM justify its requirement of an ownership interest in livestock water rights in violation of FLPMA and Utah state law?

Response: BLM grazing regulations, which were developed under statutory authorities including FLPMA, specify that new livestock water rights shall be applied for in the name of the United States to the extent allowed by state law. Prior to Utah Senate bill 274, enacted in 2014, Utah state law required BLM to jointly file for water rights. In response to that State law, BLM in Utah no longer applies for livestock water rights, but may still file water right applications for other beneficial uses identified by the State.

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Question 2: How does the BLM justify placing livestock ranchers in the difficult situation of giving the BLM an ownership interest in private property or potentially violating the terms of the grazing permit when the rancher is denied by BLM the opportunity to maintain the water infrastructure associated with the allotment?

Response: Since 1995, BLM grazing regulations require that any new infrastructure necessary to transport water from its source to another site on public land be authorized by a Cooperative Rangeland Improvement Agreement (CRIA) and that title to the permanent structures be held by the BLM. A CRIA documents the contributions made in the improvement by all parties and assigns maintenance responsibility. If the grazing permit holder is assigned maintenance responsibility, the responsibility is also included as a term and condition on the grazing permit. Maintenance should be occurring in accordance with the terms and conditions of the CRIA and grazing permit and should not affect water rights, whether they were granted prior to passage of Utah Senate Bill 274 or after. Structures existing prior to 1995 should not be affected by the title requirement, but would have had maintenance assigned by a CRIA and should be maintained accordingly until the structure is abandoned or removed, or the CRIA is modified.

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Questions from Sen. Stabenow

Question 1: The Great Lakes ecosystem has been severely damaged by more than 180 invasive and non-native species. Unfortunately, the damage caused by invasive species often goes beyond ecological. A study found the total economic impact of invasive species in the Great Lakes region to be as high as \$5.7 billion per year. The Great Lakes' sport and commercial fishing are the most impacted industries with losses estimated at \$4.5 billion annually.

As you know, it is extremely difficult to control invasive species once they become established. That is why I am working to make sure measures are taken to prevent the destructive Asian Carp from invading the Great Lakes. The Fish and Wildlife Service and the US Geological Service are important partners in this effort, and I applaud both for their valuable contributions.

Can you please share how funding provided to the Fish and Wildlife Service and the U.S. Geological Service will be used to combat Asian Carp in the Great Lakes basin, and how these control efforts benefit the region?

Response: The spread of Asian Carp toward the Great Lakes is one of the most acute threats facing this key natural resource and its multi-billion dollar fishery industry. Since 2010, the Administration has aggressively focused on preventing Asian Carp from invading the Great Lakes with the U.S. Geological Survey and the Fish and Wildlife Service playing key roles in coordinating across Federal agencies and with State and local partners. In 2017, the Department has requested \$5.6 million, through the USGS, and \$7.9 million, through the FWS, for a total of \$13.5 million to support cooperative efforts to prevent the spread of Asian Carp in the Great Lakes Basin and the upper Mississippi and Ohio rivers. Funding will support sampling waters for traces of Asian Carp using eDNA techniques and with traditional gear as part of a comprehensive surveillance and monitoring program under the 2015 National Asian Carp Management and Control Plan. Funds will also support early detection, rapid assessment, containment, response, and control outside the Great Lakes in high-risk ecosystems, such as the Mississippi and Ohio rivers.

Question 2: Secretary Jewell, I commend the Department for seeking higher funding levels for the National Parks System in celebration of its centennial. Our national parks are magnificent examples of America's natural and scenic heritage, and they attract more than 11 billion visitors a year and generate millions of dollars in economic activity.

It is my understanding that thanks to the increase for the National Park Service in the FY16 omnibus, the FY2017 budget included small base funding increases at a number of parks. For example, the Keewenaw National Historical Park in

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Michigan's base funding increased by \$150,000. It seems that when even a more sizeable funding bump is spread across the park system, the increases can be relatively modest. Can you provide us with a sense of how some of those increased FY16 funds will be used and why even small increases can be important?

Response: The FY 2016 enacted appropriation included increased funding of \$16 million to support new parks and critical responsibilities. This funding supported targeted needs at individual national parks. For example, it included at least \$180,000 for several of the newest units, including Tule Springs Fossil Beds National Monument, Manhattan Project National Historical Park, Pullman National Monument, Blackstone River Valley National Historical Park, Waco Mammoth National Monument, and Honoliuli National Monument. A funding level of \$180,000 provides start-up operations, including a site manager and basic support costs.

The FY 2017 request for increased funding of \$10.7 million would build on the funding provided in FY 2016, supporting the next incremental operational step for new units. At Tule Springs Fossil Beds National Monument, the FY 2017 request includes \$310,000 to support primarily law enforcement and facility maintenance needs, as well as visitor services. While \$180,000 in FY 2016 and \$310,000 in FY 2017 may seem inconsequential in the larger federal budget environment, this funding is critical to getting the Tule Springs Fossil Beds National Monument established as a site ready to welcome visitors. The same is true for the other newly authorized parks.

Question 3: The need for comprehensive reform to the fire suppression budget is imperative and I have long supported efforts to alter the funding mechanism through legislation such as S.235, the Wildfire Disaster Act of 2015. That said, it is also important for the Interior Department to increase the reduction in hazardous fuels on our public lands through thinning, prescribed burn and timber sales. Acknowledging that the Forest Service has a key role to play in this arena, how does the President's budget for the Interior Department reflect the comprehensive strategy necessary to reduce the risk of catastrophic wildfires?

Response: The FY 2017 request funds fire prevention, readiness, wildfire response, fuels management, fire resilient landscapes, post-fire rehabilitation, policy, planning, and oversight activities performed by the Department's land management agencies and the Office of Wildland Fire. The program strives to achieve a cost-effective, technically efficient, and scientifically-grounded fire management program that safely meets resource management goals.

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The Department of the Interior's FY 2017 Wildland Fire Management budget proposes to amend the Balanced Budget and Emergency Deficit Control Act to establish a new budget framework to support the significant cost of wildland fire suppression activity. Under this proposed framework, 70 percent of the 10 year inflation-adjusted average of suppression expenditures would be funded within the discretionary spending cap, and the remaining need funded with emergency funding provided outside the cap. As requested in the Budget, for DOI this includes \$394.7 million in discretionary appropriations, and \$290.0 million via cap adjustment. The FY 2017 budget's proposed cap adjustment will minimize the risk of resource transfers from among other Departmental programs and priorities to cover wildfire disaster response costs, thus providing greater stability and certainty of funding to other programs to invest in critical forest and rangeland management needs.

Question 4: The Department of the Interior has put forward a proposal to advance a fee on onshore operators to pay for oil and gas inspections, similar to what is being done offshore. The proposed inspection fees are expected to generate \$48 million in 2017. How will this new source of revenue help the Department's budget flexibility? If this proposal does not get passed by Congress, what challenges will the Department face?

Response: Funding inspections through fees would reduce the net cost to taxpayers of operating BLM's oil and gas program and allow the BLM to be more responsive to industry growth and associated increases in inspection workload in the future. Inspection fees would also reduce the need for current discretionary appropriations that could otherwise be directed toward other priority programs. Failure to enact the proposal would mean the public will not gain these benefits.

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Questions from Sen. Flake

Question 1: At a hearing last June I asked Deputy Secretary Connor to follow up on several issues surrounding the ability to withdraw and transport stored groundwater in Arizona. Having these wheeling agreements with the Central Arizona Project in place to access the millions of acre-feet of water that Arizona has stored underground is critical to the State's long-term water planning. Please provide an update on the status and timeline of the tribal consultations required to complete the agreements.

Response: An initial Wheeling consultation took place on June 25, 2015. At that time, the Tribes expressed concern that all uses of the canal, including delivery of water in existing/Federal capacity (Article 8.17 of the Contract Between The United States and The Central Arizona Water Conservation District (CAWCD) for the Delivery of Water and Repayment of the Costs of the Central Arizona Project (CAP)), were not included in the CAWCD Staff Proposal for Wheeling.

At that time, Reclamation and CAWCD agreed to reevaluate the process and have since developed a more comprehensive CAP System Use Agreement that attempts to address all uses of the canal including delivery of project water, wheeling, firming and exchanges. Reclamation and CAWCD co-hosted a stakeholder workshop focused on the CAP System Use Agreement on February 1, 2016 and Reclamation has met with each of the CAP tribes to outline and get feedback on the Agreement.

CAWCD and Reclamation agree that additional input will be solicited from stakeholders and the Agreement will be further refined prior to final approval.

Question 2: There is a proposal for the President to bypass Congress and designate over 1.7 million acres of land in northern Arizona as the Grand Canyon Watershed National Monument. A designation could significantly limit many of the uses of public, private, and state trust land in Northern Arizona. Within Arizona the potential new monument designations have been opposed by elected officials at all levels, numerous local municipalities, sportsmen's groups, and conservation organizations. In our neighboring states we have seen troubling Presidential designations over the past year. A 700,000 acre monument was designated in Nevada last summer and three monuments totaling nearly 1.8 million acres in California were created this month. Many in Arizona are increasingly worried that we are next. Because nearly half of the land proposed for the monument is managed by the BLM I would expect the Department of the Interior to play a role in any upcoming designation.

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a) What actions, if any, has the Department taken in regard to a possible designation of a new National Monument in Arizona?

b) Are you aware of any plans by the President to designate a new National Monument in Arizona?

Response: Designation of monuments under the Antiquities Act is a Presidential, not Departmental, action. When examining whether to recommend particular monuments for Presidential action, the Department engages in consultation with national, state, local, and tribal stakeholders, in keeping with the President's commitment.

Question 3: In a December 2015 letter to Arizona Governor Doug Ducey, the U.S. Fish and Wildlife Service notified the Governor of a Mexican gray wolf recovery planning workshop to be held in Arizona from December 14-17, 2015. Please provide an update of the result of that planning session, as well as the status of and anticipated publication date of the updated plan.

Response: The December 2015 Mexican wolf recovery planning workshop in Arizona was attended by the Service; the Mexican government; the states of Arizona, Colorado, New Mexico, and Utah; and independent scientists in both countries, all of whom have been invited to participate in the recovery planning process to revise our 1982 Mexican Wolf Recovery Plan. The attendees at that workshop reviewed and updated the scientific information that will be used to develop recovery criteria for the Mexican wolf.

Subsequent workshops include one held this month in Arizona, and one is planned for April in Mexico. Information being reviewed at these workshops includes published literature, gray literature (agency reports and files), and biological data from the reintroduced and captive populations of Mexican wolves, as well as information on other wolf populations where applicable.

Development of the recovery criteria is ongoing. Applicable information for determining areas suitable for Mexican wolf recovery includes suitable habitat features, adequate prey, and low human density. FWS will use the best available scientific information to evaluate appropriate areas for Mexican wolf recovery, and intends to have a final recovery plan by the end of 2017.

Question 4: In response to a November 2015 letter to Fish and Wildlife Service Director Dan Ashe regarding the proposed rule to list the Headwater Chub and a Distinct Population Segment of the Roundtail Chub, Senator John McCain and I were informed of the Service's intent to hold at least one public hearing in Arizona and account for all public comments until closing of the second comment period.

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Please provide information on the anticipated date and location of this public hearing, as well as the steps the Service is taking to incorporate the additional comments in their rule-making process.

Response: If the FWS continues to pursue the proposed listing rule, we will reopen the public comment period and hold a public hearing in Arizona. When that decision is made, we will share that information with your office and the public. In the interim, we continue to accept public comments on the proposed rule by mail.

Question 5: In western Arizona the wild burro situation has grown out of control. As of March 1, 2016 the Arizona population within Herd Management Areas was 291% of what the Bureau of Land Management (BLM) has determined is the maximum Appropriate Management Level, and it continues to grow. Burros cause extensive damage to public and private lands and pose a public safety hazard. In a letter last November to BLM Director Kornze, I and several other Senators asked for information on a path forward for the management of wild horses and burros. I am concerned that the resources BLM dedicates to the wild horse and burro program are focused predominately on horses and ignore the burro issues facing western Arizona. What efforts will the BLM undertake this year to control the growing burro population and bring it down to acceptable management levels? Specifically, what is being done to research sterilization and contraceptive techniques in wild burros?

Response: Because of the extraordinary growth rate of wild horse and burro herds, as well as the dramatic reduction in horse adoption rates, the BLM is now managing more than twice as many horses on the western rangelands as is recommended for a healthy balance between horses, wildlife, cattle and other resources. Nearly the same number of horses -- around 47,000 -- have already been removed from the rangelands due to the harmful effects of overpopulation on the health of both the animals and the rangelands. These off-range animals are now being fed and cared for on leased pastures or in corrals. Horses that are removed from the range but remain in the care of the agency typically cost the American taxpayer nearly \$50,000 per animal over the animal's lifetime; put simply, the costs of this program are substantial and unsustainable.

To reduce the need for off-range pastures and corrals, the BLM is broadening its efforts to increase adoptions, including seeking new authority to more efficiently transfer animals to local, State, and other Federal agencies that use them for official purposes. For instance, the U.S. Border Patrol has adopted nearly 300 horses over the past decade. While contraceptive birth control methods currently in use can be improved upon (and BLM is working to develop new tools for better wild horse and burro management, discussed further below), given the severity of the current situation, BLM is committed to

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taking more aggressive action to expand their use, and will also increase the application of spay and neuter treatments. Much of this direct action will begin in 2016, and will continue to be supported by the agency's on-going general research efforts to improve the available tools for population control.

BLM intends to initiate the following burro-specific research projects in 2016:

1. Burro PZP vaccine feasibility project, BLM Arizona Kingman Field Office. This summer, BLM plans to begin a 4-year feasibility project with the Humane Society of the United States to test the practicability of darting burros with the 1-year contraceptive porcine zona pellucida (PZP) vaccine, commonly used for wild horses. As part of the project, about 100 wild burros from the desert surrounding the project area near Oatman, Arizona, will be captured, marked, and injected with an initial dose of PZP. Humane Society staff will attempt to shoot a booster dose into some burros with a pneumatic dart, and will monitor and compare foaling rates for PZP-treated burros and control (non-treated) burros. If this project proves effective, BLM could begin wider use of this type of vaccine.

2. U.S. Geological Survey (USGS) research study – Burro contraception pasture trails.

USGS is developing a multi-year research study to test the effectiveness and practicality of several contraceptive methods for wild burros. The preliminary proposal calls for USGS to test four methods in the wild burro corrals in Axtell, Utah: the PZP vaccine Zonastat-H; Gonacon-Equine, a different contraceptive vaccine approved for use in wild horses and burros; Silicone O-ring Intrauterine devices (IUDs); and possibly a drug under development that relates to burro fertility. BLM expects to receive and review the USGS proposal in Spring 2016, and the project could begin by Fall 2016.

Starting in the fall of 2015, BLM is funding contraception research projects for wild horses that could also lead to applications in wild burros, including studies to analyze four surgical sterilization methods and studies that will test, develop, or refine contraceptive drugs in horses. More details are available at:

http://www.blm.gov/wo/st/en/prog/whbprogram/science_and_research/usgs_partnership.html

Question 6: Because Arizona contains over 500 square miles of land managed by the Department of Defense the Integrated Natural Resources Management Plans

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(INRMP) directed by the Sikes Act (P.L. 86-797) play an important role in state wildlife management. As you are aware, the Sikes Act directs the cooperation with the U.S. Fish and Wildlife Service (FWS) and the appropriate State fish and wildlife agency in developing an INRMP. Please describe the cooperative roles the FWS and the Arizona Department of Game and Fish have played in developing INRMPs in Arizona, including the INRMP development processes for Davis Monthan Air Force Base, and Ft. Huachuca.

Response: The FWS and the Arizona Game and Fish Department partner with DOD on INRMPs. For Davis Monthan AFB, FWS participates in annual meetings to review the INRMP. FWS continues to collaborate with Fort Huachuca and provides comments on periodic updates (5-year intervals). The Fort's INRMP guides all of their natural resource management and forms the basis for section 7 consultation. Due to the success of this coordination and collaboration across the federal government, and with private landowners, the Department, with our partners, designated the Fort Huachuca a Sentinel Landscape in April 2015. FWS participated in the development of the draft Barry M. Goldwater Air Force Range (BMGR) INRMP and recently nominated BMGR (Air Force and Marines) for the FWS Military Conservation Partnership Award for the exceptional work done to conserve listed and at-risk species.

Question 7: In 1989 the City of Tucson and the BLM agreed to exchange two equal-value parcels of land. In the exchange the City of Tucson received land that became Udall Park. Because the exchange was done under the Recreation and Public Purposes Act, Udall Park has several restrictions on its use including a Federal reversionary interest. However, shortly after the land exchange the State Director of the BLM sent a letter to the City and committed that the BLM would support efforts to eliminate the reversionary interest. I have introduced S.2379, the Udall Park Land Exchange Completion Act to finally complete this land exchange that started 27 years ago. Will the Department keep its commitment to the City of Tucson and support this legislation?

Response: BLM supports the conveyance of the reversionary interest in the land at issue, which is currently held by the United States. Such a conveyance would eliminate the applicable restrictions on the title and use of the property identified in the City of Tucson's Recreation Public Purpose Act patent. Under section 203 of the Federal Land Policy and Management Act, BLM has authority to sell public land at not less than fair market value. Thus, BLM could sell the reversionary interest in the public lands at issue to the City of Tucson at fair market value.

Question 8: In Arizona and throughout the West a number of state and local governments have acquired land from the BLM to use as parks. Restrictions placed

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on these lands under the Recreation and Public Purposes Act (RPPA) ensure that the land is used for the intended purposes. On lands that they manage the BLM may allow some commercial recreation concessions such as bike rentals, a zipline, or horseback riding. However, due to the RPPA restrictions a state or local entity cannot put in place those exact same recreation-enhancing concessions. I have introduced S.2380, the RPPA Commercial Recreations Concessions Pilot Program to allow a limited number of commercial recreation pilot projects on RPPA lands. The bill is supported by the National Association of State Park Directors, the National Association of County Park and Recreation Officials, and the National Recreation and Park Association. Will the Department support this pilot program to allow increased recreational opportunities on public lands?

Response: The Department strongly supports recreational opportunities on public lands. The Department also must ensure that the resources we manage are administered in a responsible way to help meet the Nation's needs while ensuring taxpayers receive a fair return for the sale of public resources. Under the Recreation and Public Purposes (R&PP) Act, the BLM leases and patents public lands to states, local governments, and not-for-profit organizations at no or significantly reduced cost if these entities plan to use the lands for certain recreational and public purposes. As a result, R&PP Act lease and patent holders cannot use the lands they receive under the R&PP Act to engage in many commercial activities. When R&PP Act lease and patent holders want to use such lands for profit, the Department generally supports the sale of any remaining Federal interest the lands at fair market value to the lease and patent holders. In addition, while the BLM allows certain commercial recreation activities on the public lands, the agency, unlike other Federal land management agencies, lacks commercial recreation concessions authority.

Question 9: I received a letter from National Park Service Associate Director Stephanie Toothman on February 5th (H32(2280)) announcing a 30 day extension of the nomination period for the proposed listing of the *Chi'chil Bildagoteel* Historic District as a Traditional Cultural Property. The letter stated that the extension would be announced in a new Federal Register Notice that also identified the district by its common name (Oak Flats). The extended nomination period will close in less than two weeks and I am unaware of any new Federal Register Notice announcing to the public that they have additional time to comment on the proposed designation. This seems to defeat the intent of the extension. Does the Department intend announce the extension before the end of the nomination period? Does the Department intend to further extend the nomination period based on the lack of public notice for the current extension?

Response: The Department published a new Federal Register Notice. The notice was officially dated February 29; however, because of the Keeper's request to expedite

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publication, the Federal Register "pre-published" the entire notice on Thursday, February 25th, indicating its intent to formally publish the notice on February 29th. The notice was then published and publicly available on the internet by the early morning of Saturday, February 27th. There is no further extension of the comment period beyond the 30-day extension already provided.

Question 10: I am still awaiting answers to the Questions for the Record (QFRs) that I submitted to the Department following two hearings before the Energy and Natural Resources Committee last year. Please provide written responses to QFRs that were submitted after the following hearings: DOI Assistant Secretary Schneider, October 27, 2015; NPS Director Jarvis, December 8, 2015.

Response: Director Jarvis's responses were transmitted to the Committee on February 26, 2016; Assistant Secretary Schneider's responses were transmitted on May 4, 2016.

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Questions from Sen. Franken

Question 1: Almost one hundred years ago, President Woodrow Wilson established the National Park Service when he signed into law the “Organic Act”. According to the Act, the National Park System was established, “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

The impacts of climate change are, and will be, far-reaching. To conserve the scenery and ensure its enjoyment for future generations—as the Organic Act instructs—we must also address climate change. Protecting our parks and reducing harmful emissions go hand-in-hand. Can you describe the threat of climate change to the conservation of our National Parks? And can we guarantee that our Parks will be left “unimpaired for the enjoyment of future generations” without tackling climate change head on?

Response: As with the nation as a whole, the national parks are experiencing a changing climate. Nearly all lands (96%) administered by the National Park Service are located in areas that warmed during the 20th century, on average by 1.1 °F. Many parks (24%) also experienced changes in precipitation during that time. Projections for individual parks under different CO₂ emissions scenarios generally indicate such changes will continue, often at increasing rates. These changes in temperature and precipitation produce well-documented secondary effects like increased storms, reduced snowpack, glacier loss, earlier spring streamflow, and increased erosion. Coastal parks are experiencing increased storm surges, changing ocean chemistry, and rising sea levels. For example, a tide gauge in Golden Gate National Recreation Area recorded a sea level rise of 5 ½ inches per century from 1854 to 2010, a change that has been attributed by scientists to climate change¹.

These changes present multiple kinds of threats to the conservation of national parks. For example, increased winter temperatures in Rocky Mountain National Park have promoted park beetle infestations that are causing widespread tree mortality and reduced overall forest health². On Jamestown Island, sea level rise, compounded by sinking land and rising groundwater, threatens the archaeological integrity of the first permanent English settlement in America³. At Biscayne and Virgin Islands National Parks, extreme ocean

¹ Gonzalez, P. 2011. Climate change impacts and carbon in U.S. national parks. *Park Science* 28: 10-15.

² *Ibid.*

³ Babson, A.L. 2014. Overview of climate change adaptation needs, opportunities and issues: Northeast Region coastal National Parks. Natural Resource Report NPS/NER/NRR—2014/789. National Park Service, Fort Collins, Colorado.

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temperatures have become more frequent and led to coral bleaching, stress, disease susceptibility, and mass mortality⁴. In Concord, Massachusetts, home to Minute Man National Historical Park, warming has contributed to the loss of 27% of plant species over the past 170 years; Acadia National Park in Maine has lost 18% of its plant species over the past 120 years, also consistent with warming during that time⁵. Other effects attributed to climate change include an increase in conifer tree mortality in Mount Rainier, Olympic, and Yosemite National Parks, a shift of the forest biome into tundra in Noatak National Preserve, and a northward shift in winter ranges of bird species in 54 parks across the U.S.⁶

Many observed changes affect the very resources that inspired the creation of the parks and are explicitly referenced in the parks' enabling legislation. To meet its mission as described in the Organic Act, the NPS is implementing, and must continue to implement well-informed actions to adapt to the impacts of climate change on national park resources, and to reduce our own emissions. These steps are part of the NPS's intentional strategy for responding to climate change. Simultaneously, the NPS is working in numerous landscape scale partnerships to foster adaptation of resources both within parks and on adjacent lands, providing corridors, and supporting conservation of resources we are charged to protect.

Question 2: Our national parks are truly national treasures and we should do everything we can to protect and enhance them. In Minnesota, Voyageurs National Park receives more than 200,000 visitors per year. However, we are categorically underfunding our National Parks. The parks are facing an \$11.9 billion deferred maintenance backlog, including almost \$18 million in Minnesota. How would the National Park Service Centennial Act—as outlined in DOI's budget proposal—help reduce this backlog?

Response: The FY 2017 budget request for the National Park Service reflects a mandatory funding proposal of \$300 million over three years to address the NPS deferred maintenance backlog contained in the National Park Service Centennial Act. In addition, the budget includes increased discretionary funding of \$150.5 million for FY 2017. The mandatory and discretionary funding proposed would ensure the NPS could restore and

⁴ Lunz, K.S., 2016. Investigator's Annual Report Summary: Biscayne National Park, Florida Fish and Wildlife Research Institute.

⁵ Primack, R.B., A.J. Miller-Rushing, and K. Dharaneeswaran, 2009. Changes in the flora of Thoreau's Concord. *Biological Conservation*, 142: 500-508. Willis, C.G., et al., 2008. Phylogenetic patterns of species loss in Thoreau's woods are driven by climate change. *Proceedings of the National Academy of Sciences*, 105: 17029-17033. Greene, C.W., et al., 2005. Vascular flora of the Acadia National Park region, Maine. *Rhodora*, 107: p. 117-185.

⁶ Gonzalez, P. 2011. Climate change impacts and carbon in U.S. national parks. *Park Science* 28: 10-15.

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maintain its existing highest priority non-transportation assets to good condition over ten years. This subset of assets has a deferred maintenance backlog of \$2.4 billion out of the total \$11.9 billion backlog.

Question 3: Given the National Park Service's severe maintenance backlog, it seems to me that we should be doing everything we can to leverage private donor funding to support our parks. Could you address what is holding back donors from giving, and what the National Park Service Centennial Act does to encourage them to give?

Response: Throughout 2015, the NPS and the National Park Foundation tested new funding models to supplement federal discretionary appropriations as we prepare the national parks for the next 100 years. Through this process, we developed a better understanding of the types of projects that are most attractive to foundations, non-profit organizations, individuals, and corporate partners. We saw first-hand how providing incentives to donors can be critical in attracting both small and large gifts.

As proposed, the National Park Service Centennial Act has three components whose purpose is to help generate more private donations:

First, the Centennial Act would establish a National Park Centennial Challenge Fund of up to \$100 million per year for three years to match private donations. Matching a federal investment provides donors with a level of certainty they need to make a gift and motivates giving as donors can see the larger impact their gift can make. It is also an important tool for engaging more and diverse individuals and organizations in park philanthropy. For many of our smaller philanthropic partners, a federal match presents the opportunity to accomplish important park projects that would otherwise be beyond their reach. For our larger partners, a federal match allows them to work with a park to complete increasingly ambitious and challenging projects.

Second, the Act would establish within the U.S. Treasury the National Park Service Second Century Fund. This would be an ongoing fund which would provide federal funds (generated by a park lodging fee and Senior Pass increase) to match nonfederal donations to the National Park Service for specified projects and programs.

Third, the Act would establish the Second Century Endowment within the National Park Foundation. Funds deposited in the endowment would be used for projects and activities that further the mission and purposes of the NPS. Although Americans currently have the ability to make direct donations to the National Park Service and individual parks, it is our experience that donors are often reluctant to make a gift directly to a government

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agency, whether at the national or park level. However, they are drawn to supporting our nonprofit partners, including the National Park Foundation. The Congressionally chartered Foundation has the staff, expertise, and time to work with potential donors to structure and steward their gifts and explore the tax implications. The nonprofit partner is also able to combine their donation with other gifts for greater impact. The proposed endowment would allow the Foundation to create incentives for donors to have their gift leveraged for maximum benefit to the parks. The Foundation could also seed new and more ambitious projects to benefit groupings of parks or parks with similar meanings and introduce new audiences to park philanthropy.

Question 4: Right now in Minnesota our farmers and ranchers are concerned, and rightfully so, about losing their livestock—their livelihood—to wolves. The 2014 court decision returning the Great Lakes gray wolf's listed status under the Endangered Species Act has resulted in the loss of state wolf management programs, and highlights the need for Federal funding to prevent these wolf-livestock conflicts. Why is it then that the Fish and Wildlife Service has proposed to discontinue funding for the Wolf Livestock Loss Demonstration Program in its FY17 budget—at a time when it is needed most? Other available programs may provide indemnity payments, after a loss has been incurred; however, this valuable program—which is zeroed out in the budget—allows livestock producers to be proactive and employ strategies to help prevent wolf attacks from occurring in the first place.

Response: The goal of the Recovery Program is to minimize or remove the threats that led to a species listing so that it can be delisted or downlisted. In 2011 and 2012, the FWS determined the gray wolf to be biologically recovered in the Northern Rocky Mountains and Western Great Lakes. FWS proposes to discontinue funding in FY 2017 for the Wolf Livestock Loss Demonstration Program within the Recovery subactivity because FWS is focusing limited Recovery Program funding on preventing extinction and improving the status of species through on the ground conservation actions and there are other programs that are better suited to deliver this funding.

For example, USDA Wildlife Services provides a number of operational activities aimed at controlling wolf-livestock interactions through their predation management program, including providing predation management information and technical assistance to livestock producers. In FY16, USDA Wildlife Services and the State of Minnesota each committed \$100,000 toward wolf-livestock predator management in MN.

Question 5: I would like to thank the BLM for the recently released methane rule. I am very pleased to see a rule that will help us reduce emissions from one the most potent greenhouse gases. Under the new rule, companies will now be able to capture

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methane and send it to market, and states will be able to receive royalties from gas that would have normally been wasted. What are your estimates for the cost savings to industry as they implement these new rules, as well as to states that will now be paid royalties for its production?

Response: Benefits of the rule include revenues for operators from sale of recovered natural gas and environmental benefits of reducing methane emissions and other air pollutants. Details of the cost and benefits of the proposed methane and waste reduction rule are provided in the Regulatory Impact Analysis for the proposed rule. Using conservative assumptions, BLM estimates that net benefits for the BLM proposed rule would be \$115 – \$188 million per year (costs and costs savings calculated using a 7% discount rate). Of that amount, we estimate cost savings to the industry of about \$74 – \$95 million per year and additional royalties of \$9 – \$11 million per year that would be shared with states (if Federal revenues) or paid to tribes (if tribal revenues). If EPA's Standards are not finalized, the net benefits and additional royalties may be slightly higher.

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Questions from Sen. Portman

Question 1: What was the match from private entities over the last two years from the \$25 million appropriated from Congress for the Centennial Challenge? Can you provide in detail the benefits and interest from the private sector for this program?

Response: In FY 2015 and FY 2016, Congress appropriated a total of \$25 million for Centennial Challenge projects; these funds were matched nearly 2:1 with a projected total partner match of \$45 million.

In FY 2015, Congress appropriated \$10 million, which the NPS leveraged with \$12 million in non-federal funds, for a combined impact of \$22 million. There were more than 100 projects at over 70 parks supported by 90 partners. In FY 2016, Congress appropriated \$15 million, which is matched by nearly \$33 million in partner donations. There are 69 projects in more than 60 parks supported by more than 90 partners; more than half these projects have a match greater than 1:1.

The private sector has supported such projects as youth engagement, deferred maintenance, and other infrastructure improvement needs in parks across the country. FY 2015 projects included installation of a mountain biking trail at Cuyahoga Valley National Park (\$183,000 federal; \$199,000 partner); providing in-park education programs to diverse Miami youth at Everglades National Park (\$78,000 federal; \$99,000 partner), and rehabilitation of Cemetery Ridge at Gettysburg National Military Park (\$600,000 federal; \$700,000 partner).

FY 2016 projects include the restoration of the Mariposa Grove at Yosemite National Park (\$1.2 million federal; \$9.2 million partner), addressing deferred maintenance and accessibility issues at Lily Lake in Rocky Mountain National Park (\$109,000 federal; \$125,000 partner), and supporting urban youth spring break programs at Kenilworth Aquatic Gardens (\$7,500 federal; \$7,800 partner).

Question 2: I understand that when this Centennial Challenge program was first introduced almost a decade ago that the Department received pledges exceeding \$300 million from non-federal partners. If we are able to increase the federal contribution for the Centennial Challenge, do you believe there is enough interest from the private sector to match the federal government investment?

Response: Yes, the NPS believes there is enough interest from the private sector to match federal investments. For example, in FY 2016, requests for Centennial Challenge funding far exceeded available federal appropriations; and the NPS expects the level of

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interest to grow as the program approaches its third consecutive year of federal appropriations. The FY 2017 President's Budget Request includes a discretionary increase of \$20 million for the Centennial Challenge program, for a total discretionary funding level of \$35million, as well as a mandatory proposal for \$100 million annually for three years, which would be authorized through the National Park Service Centennial Act.

The FY 2016 Centennial Challenge list reflects the diversity of NPS partnerships, from local and national friends groups and non-profit organizations, to companies in the private sector, to state and local governments. The increased funding requested in FY 2017 demonstrates the Administration's commitment to this innovative and successful program; continued Congressional support and appropriations, both discretionary and mandatory, will ensure partners can continue to fundraise and plan for projects in the future.

Question 3: Given so many states publicly expressed disappointment with OSM's lack of engagement with them thus far, will OSM re-engage states, such as Ohio, in the rule-making process to ensure any final rule is practical and reasonable? If so, how?

Response: Yes. The rulemaking process began with an Advance Notice of Proposed Rulemaking, stakeholder outreach meetings, nine public scoping meetings and two public comment periods on the scoping for the draft environmental impact statement (DEIS). The scoping process generated over 50,000 comments, including input from the states. A number of state agencies, including state SMCRA regulatory authorities, participated as cooperating agencies in the early development of the DEIS for the stream protection rule. These states provided meaningful input and comments that were used to prepare the DEIS. In addition, the DEIS was made available for all cooperating agencies and the public to review and provide input on during the public comment period. The public comment period was extended to provide interested parties, including the states, more time to review and comment on the DEIS. OSM conducted six public hearings in Colorado, Kentucky, Missouri, Pennsylvania, Virginia and West Virginia during the public comment period. Ultimately, OSM received about 95,000 comments, including hundreds of pages of comments from state SMCRA regulatory authorities, on the DEIS and the proposed stream protection rule. Also, on October 8, 2015, OSM offered all former cooperating state agencies the opportunity to reengage as cooperating agencies in the development of the final EIS.

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We have continued to engage in discussions with the state SMCRA regulatory authorities to better understand their comments regarding the proposed stream protection rule. In addition to meetings with the state SMCRA regulatory authorities in conjunction with Interstate Mining Compact Commission meetings, we have either met with or held telephone or video conferences with Wyoming on November 20, 2015, and January 8, 2016; Ohio and Maryland on December 2, 2015; Oklahoma on December 3, 2015; Indiana and Pennsylvania on December 10, 2015; Virginia on December 11, 2015; Illinois on December 16, 2015; North Dakota, Utah and Montana on December 17, 2015; Alaska on January 14, 2016; and West Virginia on February 10, 2016. Additional opportunities to meet and collaborate were scheduled in Spring 2016.

Question 4: The Omnibus that was signed into law in December directs OSM to re-engage states in a “meaningful manner” prior to the final SPR, if requested by the states. If states request more information from OSM, how will OSM carry out, in a meaningful manner, providing the documents and data in a timely fashion?

Response: OSM began responding to state requests for documents and information on March 2, 2016, and continues to engage with the states on the proposed rule.

Question 5: The Omnibus also requires OSM to meet with any primacy state, such as Ohio, following that state’s review of the documents and data provided by OSM. Do I have your commitment that OSM staff will meet with the State of Ohio Department of Natural Resources if they request such a meeting?

Response: The Department is committed to meeting with the states as review of comments submitted on the proposed rule moves forward. OSM Director Pizarchik has communicated with the Chief of the Division of Mineral Resources Management of the Ohio Department of Natural Resources. In addition, the Department’s Assistant Secretary for Land and Minerals Management, Director Pizarchik, and other OSM officials remain available for engagement and discussion with the states and have continued to meet with representatives of states since the close of the comment period.

Question 6: With respect to the USGS 3D Elevation program (3DEP), it is my understanding that there is no lidar data for Ohio that meet 3DEP requirements for quality level 2 or better. When was the last time that Ohio was mapped using lidar data, and how do you plan on updating and replacing the older, lower quality data? How much of Ohio still needs to be mapped using lidar data?

Response: Statewide coverage was obtained in 2006 - 2007 as part of the Ohio Statewide Imagery and Elevation Program (OSIP). Currently no publicly available,

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3DEP-quality data exist in the State, although USGS stands ready to refresh Ohio's existing data coverage with current, higher quality 3DEP data in collaboration with the State. 3DEP is identified in the FY 2017 President's Budget for a total increase of \$4.9M, which will be applied to data acquisition partnerships.

The Ohio Department of Administrative Services, Geographically Referenced Information Program was selected to receive 3DEP funding to support lidar acquisition for an area of about 2,500 square miles in the Lower Maumee and Cedar-Portage sub-basin in northwest Ohio. This project will provide updated 3DEP quality data for approximately 6% of the state. The project includes contributions from Federal partners (FEMA, NRCS and USGS) and 3 Ohio counties (Lucas, Sandusky and Wood Counties). Data Acquisition is scheduled for Spring 2016.

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Questions from Sen. Hoeven

Question 1: Congress passed the BLM Permit Processing Improvement Act of 2014 to improve the Application for Permit to Drill (APD) application processing times in the Field Offices. To help improve permit turnaround times, the oil industry agreed to step up and pay more in APD fees. The fee was changed from \$6,500 to \$9,500 per APD. The increase in fee was meant to remain in the field offices to process protests, leases, and permits.

Unfortunately, we heard some very disturbing news from your field offices that the BLM in DC decreased general funding to the field offices to offset the increased revenue from the fees. This shifting of money is contrary to congress's intent and raises very serious issues about how we can trust the DOI and BLM moving forward.

- Please send a detailed statement of how much revenue was generated through these fees in the Montana/Dakota office and please detail how much money was distributed to the Montana/Dakota Office through other funds before and after these fees went into effect.**

Response: The BLM Permit Processing Improvement Act instituted a \$9,500 Application for Permit to Drill (APD) fee, effective October 1, 2015, and a new mandatory funding source for APD processing starting in FY 2016. Under this new funding system, budget authority is generated through collection of APD fees, instead of by the prior method of annual offsetting collections provided in BLM's annual appropriations acts.

Unfortunately, the change in funding methods for FY 2016 coincided with a period of declining APD submissions. As of March 31, 2016, the BLM has collected approximately \$6.2 million in APD fees during FY 2016. This is in contrast to the \$16 million received in the same time period in FY 2015, when the APD fee was \$6500.

For the Montana/Dakotas state office, the BLM is projecting slightly over \$2 million in APD receipts in FY 2016, which is comparable to the office's APD receipts in FY 2015. The BLM anticipates the Montana/Dakotas state office will receive approximately \$14 million dollars in funding for oil and gas activities in FY 2016, which is approximately \$2 million above amounts available to it in FY 2015.

Since 2007, BLM's North Dakota Field Office has doubled the size of its staff. In fact, in recent years, it has become one of BLM's largest APD permitting offices. Despite the fact that fewer applications are being submitted by industry, BLM remains focused on

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providing the North Dakota Field Office with funding to reduce its backlog of drilling permit applications.

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Questions from Sen. Warren

Question 1: The Department of the Interior recently initiated a comprehensive review of the federal coal program, and in conjunction with the review, placed a three-year moratorium on new coal leasing. This decision follows reports by the GAO, the Department's Inspector General, and others that have raised serious concerns about how the federal government values coal. Additional concerns have been raised that the federal coal program does not reflect all of the costs of coal, particularly its climate effects.

The decision to place new leasing on hold while you review the coal program is a necessary and appropriate response to these critical questions. I want to thank you and your Department for your leadership on this issue, and in particular, your attention to addressing the climate change impact of fossil fuel production on federal lands.

As the Department considers leasing areas off the Atlantic Coast for oil and gas drilling, as was proposed in the Administration's Draft Proposed Program for OCS leasing for 2017-2022, I urge you to exercise similar caution. Such drilling would jeopardize both marine and coastal environments and the economies that depend on them, and it would exacerbate our dangerous national reliance on fossil fuels.

- a. What method does the Department of the Interior use to consider the climate change impacts of offshore oil and gas leasing?**

Response: The Department currently considers climate change impacts of proposed OCS oil and gas leasing and activities in several different ways:

- Consistent with the Council on Environmental Quality's (CEQ) draft guidance:
 - BOEM estimates the greenhouse gas emissions that may result from OCS activities over the 40-70 year life of leases issued pursuant to a Five Year Program. BOEM does a complementary analysis from a cumulative perspective, considering all ongoing and future OCS oil and gas activities (not just those that may result from a single program). Those methods have been published and subject to public comment.
 - BOEM addresses the global direct and indirect impacts of OCS oil and gas exploration, development, production, and product transport/handling on climate change in its assessment documents. These assessments recognize the influence that climate change has on environmental resources and communities, as well as the potential for increased vulnerability and susceptibility to oil and gas impacts due to climate change. BOEM describes other cumulative actions that may be contributing to climate

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change and considers emissions and impacts in that global context. BOEM also estimates greenhouse gas emissions that would occur absent OCS oil and gas leasing – the emissions that would occur from developing substitute energy sources as demand for energy would not substantially decrease absent a new OCS leasing program.

- BOEM invests a significant fraction of its environmental research portfolio in environmental monitoring relevant to understanding climate change related-impacts on ecosystem health. For example, BOEM conducts a systematic inventory of all air emissions from OCS oil and gas activities every three years, including greenhouse gases emitted by operators on the OCS.

At this time, BOEM does not monetize the potential costs of greenhouse gases in its analysis, or analyze the range of potential impacts of downstream consumption of produced oil and gas.

b. Does the Department believe this current method accurately reflects all of the climate change risks of oil and gas leasing?

Response: The Department believes its current approach is rigorous and consistent with CEQ's draft guidance. The current method meets the guidance's proportionality standard, where assessment is commensurate with the amount of projected emissions. The approach is also consistent with recent decisions of the United States Circuit Court of Appeals for the District of Columbia related to OCS oil and gas leasing.

c. How is the Department incorporating the climate effects of expanded leasing in its decisions about the 2017-2022 OCS leasing program, particularly the potential expansion of leasing into any of the Atlantic planning areas?

Response: Climate change is a factor fully considered in the decision framework. A rigorous treatment of climate change effects in all OCS areas under consideration for leasing is included in supporting analyses. It should be noted that the Five Year Program is a proposed schedule of lease sales and does not represent an irretrievable decision to hold any specific lease sale. Additional analysis will take place before a lease sale is held that will include more region-specific assessment and consideration of climate change impacts. We also note that the Proposed Program, made available on March 15, proposes no sales for the Atlantic Program Area.

d. Does the Department assess climate change risks when deciding whether to authorize geological and geophysical activities, such as seismic airgun surveys, that are intended to facilitate offshore oil and gas production? If so, how?

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Response: The principal sources of greenhouse gases associated with geological and geophysical activities are vessels, specialized equipment, and necessary support infrastructure. Analytical considerations and approaches are similar to those described above.



**Potential Funding under the RECLAIM Act of 2016¹:
Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More**

States/Tribes	Historical Coal Prod Tonnage (x 1000)	Percentage of Total	Potential Funding for Uncertified States (source Historic Coal Balance)	Total Potential RECLAIM Funding 2017-2021 ²
Alabama	1,254,440	0.028935	\$ 5,642,290	\$ 28,211,450
Alaska	13,536	0.000312	60,883	304,415
Arkansas	104,296	0.002406	469,108	2,345,540
Colorado	611,350	0.014101	2,749,764	13,748,820
Illinois	4,647,256	0.107193	20,902,686	104,513,430
Indiana	1,513,001	0.034899	6,805,260	34,026,300
Iowa	367,329	0.008473	1,652,193	8,260,965
Kansas	297,779	0.006869	1,339,367	6,696,835
Kentucky	4,554,605	0.105056	20,485,956	102,429,780
Maryland	295,137	0.006808	1,327,484	6,637,420
Missouri	359,548	0.008293	1,617,195	8,085,975
New Mexico	148,627	0.003428	668,503	3,342,515
North Dakota	190,256	0.004388	855,744	4,278,720
Ohio	2,848,828	0.065711	12,813,617	64,068,085
Oklahoma	214,174	0.004940	963,324	4,816,620
Pennsylvania	15,022,237	0.346502	67,567,852	337,839,260
Tennessee	526,185	0.012137	2,366,704	11,833,520
Utah	353,866	0.008162	1,591,638	7,958,190
Virginia	1,397,951	0.032245	6,287,782	31,438,910
West Virginia	8,633,592	0.199142	38,832,650	194,163,250
Uncertified Subtotal	43,353,993		\$ 195,000,000	\$ 975,000,000
Certified States/Tribes and Minimum Program States			5,000,000	25,000,000
Total		1.000000	\$ 200,000,000	\$ 1,000,000,000

¹The potential funding is based on the existing AML Funds Distribution formula in SMCRA and the proposed RECLAIM Act.

²This column assumes that the amount allocated to each Uncertified State is fully committed.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUN 29 2016

The Honorable Lisa Murkowski
Chairman, Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Murkowski:

Enclosed are responses prepared by the U.S. Geological Survey to the questions for the record submitted following the April 7, 2016, oversight hearing before your Committee on the U.S. Geological Survey.

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional and
Legislative Affairs

Enclosure

cc: The Honorable Maria Cantwell, Ranking Member
Committee on Energy and Natural Resources

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Questions from Chairman Lisa Murkowski

Question 1: Growing Mineral Dependence: The USGS has collected data on our nation's foreign mineral dependence for close to 40 years now. How has that changed over that time? What are the drivers of our deepening foreign mineral dependence? Do you believe that dependence exposes our nation to any strategic vulnerabilities?

Response: There are a variety of factors that go into explaining why U.S. net import reliance has changed over time. Most all relate to global trade and market economics. Examples of such are provided in the USGS Fact Sheet on *Comparison of U.S. net import reliance for nonfuel mineral commodities—A 60-year retrospective (1954–1984–2014)*¹.

Analysis of 79 nonfuel mineral commodities showed that in 1954 the United States was greater than 50% net import reliant for 28 of those commodities and 100% net import reliant for 8. In 1984, the total number of commodities analyzed had increased to 91; the United States was greater than 50% net import reliant for 38 of those commodities and 100% net import reliant for 11. In 2015, 94 nonfuel mineral commodities were analyzed by the USGS; the United States was greater than 50% net import reliant for 47 of those commodities and 100% net import reliant for 19.

Although net import reliance alone does not necessarily equate to supply risk, the types of commodities, as well as their sources, are important factors used to evaluate risk. Domestic reserves and resources, governance risk, and trade restrictions, among others, are additional factors that should be considered when calculating supply risk and developing mitigation strategies.

Question 2: America right now is completely dependent on imports of graphite, for example, which is one of five commodities that we have on U.S soil, but do not currently produce. However, I know there is a huge deposit of graphite north of Nome, Alaska near Pilgrim Hot Springs.

- a. Why are we unable to open domestic mines despite having significant mineral deposits?

¹ Fact Sheet 2015-3082, available at pubs.er.usgs.gov/publication/fs20153082

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Response: Exploration for and development of mineral resources in the U.S., and in most of the western industrialized world, is conducted by the private sector. Thus, the decision to explore for or develop a mineral resource is a business decision that must factor in the time and cost to find a viable resource, to explore in more detail to define an economic reserve, to comply with local, state and federal regulatory requirements, to build a mine and supporting infrastructure, to operate the mine at a profit, and to close the mine and reclaim the property. Because the minerals industry is a global industry, these business decisions are made in a global context. In some parts of the world the exploration and development of mineral resources are subsidized by governments or in some cases owned outright by state-owned enterprises. This can affect mineral commodity markets which impact private sector business decisions on what resources to pursue for development.

Question 3: In a November 2005 USGS Mineral Resources Program Planning document, your agency said it needed a budget of \$52.5 million a year for the next five years through FY 2010 to conduct adequate mineral resource assessments in America. With inflation, that is 32 percent less than today's proposed budget for mineral resource work.

- a. Why are your current budget proposals not a significant reduction in what is needed for this nation to really know what its mineral resources are?

Response: Given changes in technology since 2005, which have created a dependence on a new suite of critical minerals, especially rare earth elements, the President's budget puts a strong emphasis on understanding new critical minerals. The President's FY 2017 budget for the USGS Mineral Resources Program provides funds to support research on identifying and evaluating new sources of critical minerals. The budget also funds collection, analysis and dissemination of data that document production and consumption for about 100 mineral commodities, both domestically and internationally, for 180 countries.

- b. In your testimony on April 7, you said that a deputy assistant secretary would be appointed for minerals. When is this expected to happen?

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Response: The selection for Associate Director for Energy and Minerals was approved by the Department of the Interior and the Office of Personnel Management on April 22 and will be announced as soon as an entry on duty date has been established.

Question 4: Mineral Prioritization: The USGS releases a Mineral Commodities Summary report each year which provides a detailed summary of various mineral commodities over the past 5 years. To help better understand and the demand for these commodities, the USGS uses the following criteria; 1) How important is the commodity to our present economy and standard of living?; 2) How much of it do we have and to what extent is it economically, environmentally, and technologically available?; and 3) How and where can more be found both in the United States and elsewhere?

- a. I'm trying to understand the extent of the USGS's vision when it comes to critical minerals needed for economic and strategic security. Is the USGS only examining a handful of select commodities through this identification process or is it being done on an industry-wide or even economy-wide basis?

Response: The work required to identify critical materials needed for U.S. industries and the U.S. economy in general was recently outlined in an NSTC interagency report entitled "Assessment of Critical Minerals: Screening Methodology and Initial Application." This report was authored in large part by scientists from the USGS National Minerals Information Center (NMIC), relies heavily on NMIC data, and provides a framework for identifying materials of interest. This early-warning screening assesses potential criticality (*C*) using a uniform methodology that results in a single value for each mineral commodity on a common 0 to 1 scale, where increasing values signal higher potential criticality. The assessment is based on the geometric mean of three fundamental indicators: supply risk (*R*), production growth (*G*), and market dynamics (*M*). These indicators were selected because they capture different aspects of availability and because of their complementary nature: *R* is a measure of the risk associated with geopolitical production concentration, *G* incorporates changes in the mineral's market size and reliance on geological resources, and *M* tracks the mineral's price sensitivity to changes in its market.

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The early-warning screening has been applied to 78 mineral commodities for years 1996-2013. Results from this initial assessment reveal heterogeneity in the *C* indicator values across the minerals evaluated and over time. Certain minerals including bauxite, copper (Cu), and gold (Au), for example, have consistently low *C* values. In contrast, minerals such as germanium (Ge), the rare earths (Y, La-Lu), ruthenium (Ru), rhodium (Rh), and antimony (Sb) have some of the highest *C* indicator values. Most of the other minerals have moderate *C* indicator values, which, however, have mostly been increasing over the time period examined. Indeed, an overarching trend has been the overall increase in the *R* indicator, suggesting that production has become much more concentrated in countries with higher governance (geopolitical and regulatory) risk in year 2013 as compared to year 1996.

- b. The USGS website states that it will provide updates for selected critical mineral commodities. Can you please tell me which selected critical mineral commodities the USGS plans to provide updates on and what are the Survey's criteria for selecting the specific critical mineral commodities?

Response: The USGS expects to soon release Professional Paper 1802, *Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply*, a timely publication that updates information published in 1973 in U.S. Geological Survey Professional Paper 820, *United States Mineral Resources*.

This publication presents domestic resource and geologic information on the following 23 mineral commodities currently viewed as important to the national economy and national security of the United States (in alphabetical order): antimony (Sb), barite (barium, Ba), beryllium (Be), cobalt (Co), fluorite or fluorspar (fluorine, F), gallium (Ga), germanium (Ge), graphite (carbon, C), hafnium (Hf), indium (In), lithium (Li), manganese (Mn), niobium (Nb), platinum-group elements (PGE), rare-earth elements (REE), rhenium (Re), selenium (Se), tantalum (Ta), tellurium (Te), tin (Sn), titanium (Ti), vanadium (V), and zirconium (Zr).

These commodities have historically been important for US manufacturing and defense industries and share supply vulnerabilities, either due to geographic

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concentration of supply, or to being a by-product of some other commodity production.

- c. How can we broaden the USGS' activities to provide updates on a wider range of commodities needed in current and future manufacturing processes?

Response: There are several areas of interest that the USGS would like to increase capacity to pursue. These include:

Exploration-- Because critical and strategic minerals are often very small volume commodities or are produced principally as byproducts, these materials often "fly under the radar" in such domestic and global analyses of major mineral exploration projects that are conducted by USGS NMIC. However, the Department is taking steps to explore the location of additional commodities. One example is the Department has granted awards to two Tribes in New Mexico to evaluate REE exploration on tribal lands, which could lead to future opportunities.

Byproduct potential from current major commodity production -- Quantifying the volume of potentially recoverable critical materials from byproduct streams which are currently not being recovered because of economic or technological constraints would be very useful in informing potential mitigation strategies to reduce supply chain risk. This kind of information is not currently being collected or analyzed in any systematic way.

Key downstream supply chain materials -- There are large gaps in information on metals, oxides, and other key precursor compounds which feed manufacturing processes to produce components for products such as electronics, automobiles, aircraft, and a whole host of defense applications. Collecting this information further down the supply chain could be accomplished using the same processes and procedures currently employed by the NMIC for mining and concentrate production.

Secondary Mining (Recycling)-- The USGS NMIC does some limited reporting of recycled mineral commodities. Much more could be done in this area and it will become increasingly important as above ground inventories (which are

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poorly quantified) continue to grow and as increasing quantities of embedded materials become available as products reach the end of their useful life and become available for recycling.

Question 5: Resource Assessments: In the most recent Mineral Commodity Summaries report, for 2016, USGS notes that our nation now imports more than 50 percent of its supply of some 47 different mineral commodities.

- a. Generally speaking, to what extent have we surveyed our lands to determine the extent of our own domestic mineral base?

Response: Although the USGS has completed a significant amount of work on inventorying known mineral resources and estimating the mineral resources that have yet to be discovered, there still remains much to be done to maintain an up-to-date understanding of our Nation's mineral resources, particularly critical mineral resources. Assessments for undiscovered mineral resources are dynamic and must be periodically updated to incorporate advances in knowledge and technology. Thus, even for regions or elements that have been previously assessed, there is an ongoing need for new data and analysis.

The first and only nationwide probabilistic (quantitative) assessment of undiscovered mineral resources in the U.S. for copper, lead, zinc, gold, and silver, was completed in 1996. Future assessments of domestic undiscovered mineral resources will focus on geologic provinces known to have permissive geology for critical mineral resources, rather than a nationwide assessment.

The USGS is currently doing the necessary foundational data collection and research that could lead to such assessments for:

- Rare Earth Elements (REE) and cobalt in the St. Francois terrane of SE Missouri;
- Copper, nickel and platinum group metals in concealed portions of the mid-continent rift;
- REE in clay-rich material in the Blue Ridge and Piedmont region of the southern Appalachians; and
- Critical minerals across multiple regions in Alaska

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- b. Do we know what we have in places like Alaska, or are we still a long ways from having useful data to show the full picture?

Response: The USGS, in collaboration with the Alaska Division of Geological & Geophysical Surveys, is improving our understanding of the known mineral resource inventory of Alaska. There remains, however, considerable work to be done to better understand Alaska's potential for undiscovered mineral resources. Alaska is a vast region that is difficult to access; consequently the state is poorly mapped at scales necessary to fully evaluate mineral resource potential. The USGS has recently completed geophysical surveys to assist with on-going and planned geologic mapping efforts.

Question 6: Sage Grouse Withdrawals: The USGS cites the limited amount of exploration activity over the last few decades as a Critical Minerals Resource problem that must be addressed. Since exploration and new mining development are already either restricted or banned on more than half of all federally owned public lands, please tell me how the Department of the Interior's new 10-million-acre mineral withdrawal to protect sage grouse habitat will impact USGS's work of identifying key commodities necessary for existing and emerging technologies?

Response: At the request of the Bureau of Land Management (BLM), the USGS is currently conducting a mineral resource assessment, for all mineral commodities with known resources, in the 10-million acres of land being proposed for withdrawal from mineral entry to conserve sage grouse habitat. This work will inventory known mineral resources and assess the potential for undiscovered mineral resources. This information will be available to the Department of the Interior (as well as to the general public) for making informed decisions on the management of these Federal lands.

Question 7: In your response to my December 18 letter, you said that the USGS has recently produced a mineral resource assessment of six selected deposit groups in the Central Yukon Planning Area in Alaska. While I appreciate that the Survey has released the latest version of the agency's U.S. Mining Directory, I still find it odd that the USGS

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last year released a report mapping 96% of Afghanistan using hyperspectral imaging, while Alaska is still largely unmapped.

- a. What will it take in the future for all the prospective mineral zones in Alaska to receive the same level of mapping that USGS has performed for Afghanistan? What is the likely cost and how long will it take at current funding levels?

Response: Conducting a hyperspectral survey of Alaska, with similar parameters as used for the USGS Afghanistan hyperspectral survey, would cost approximately \$50M, or about the equivalent of the annual budget of the USGS Mineral Resources Program, for data collection alone. An additional \$15M-\$20M would be required for data processing. This would be a multi-year effort, as data can only be collected under cloud-free conditions, and data collection would likely be required over multiple summer field seasons.

Question 8: Earthquakes in the Arctic: This is a question that I asked Secretary Jewell, but since I haven't received a response yet, let me ask you directly. The President's 2013 Arctic strategy document emphasizes cooperative efforts with the State of Alaska to respond to natural and man-made disasters. In the last two years there have been significant swarms of earthquakes in the Bering Sea, Northwest Alaska, and the Arctic National Wildlife Refuge.

- a. Does your agency have a plan to engage with the State to develop earthquake mitigation strategies for the Arctic region?
- b. If not, will you commit to developing one?

Response: These questions would be most appropriately directed to Director of the National Earthquake Hazards Reduction Program (NEHRP) at the National Institute of Standards and Technology. Within the Department of the Interior, the USGS is a member of the four-agency NEHRP partnership but USGS does not have responsibility for developing earthquake mitigation strategies; that is the responsibility of NIST and FEMA.

The USGS responsibilities under NEHRP are to: conduct and support targeted

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geoscience research investigations on earthquake causes and effects; produce national and regional seismic hazard maps and assessments; monitor and rapidly report on earthquakes and their shaking intensities in the United States and abroad; work to improve public understanding of earthquake hazards; and coordinate post-earthquake reconnaissance carried out and supported by NEHRP agencies and other organizations.

Question 9: Unconventional Oil and Gas: Is it fair to say that vast “in-place resources” – that is, irrespective of prices – of heavy oil, viscous oil, shale, tight gas, coalbed methane, methane hydrates, hydrocarbon gas liquids, and conventional crude oil and natural gas remain untapped in Alaska?

Response: The USGS Energy Resources Program (ERP) focuses assessment work on undiscovered, technically recoverable resources. Current USGS estimates of mean Alaska North Slope oil and gas resources from conventional, shale, coalbed gas, and gas hydrate reservoirs total about 18 billion barrels of liquids (oil plus natural gas liquids) and about 255 trillion cubic feet of natural gas. These large volumes of oil and gas that are considered technically recoverable using current technology suggest the existence of much larger “in-place resources.” Estimates of heavy oil and viscous oil have not been completed because data necessary for making such estimates are not accessible for analysis because they are industry-proprietary information.

Question 10: Unconventional Oil and Gas: It is sometimes pointed out that most of the estimated shale resources in the United States exist under state and private land, not federal lands. But is that true of conventional resources on federal land in Alaska, per USGS estimates?

Response: The USGS has estimated that the largest assessed resources onshore Alaska are located in the Arctic National Wildlife Refuge (ANWR) 1002 Area. Estimates provided by BOEM suggest that the largest assessed resources overall are located in the Chukchi Sea and Beaufort Sea areas of the Outer Continental Shelf (OCS). Both are located on federal acreage.

Question 11: Unconventional Oil and Gas: Based on your assessments, which basin has the highest prospectivity in Alaska?

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Response: The USGS has estimated that the North Slope Basin contains the highest oil and gas prospectivity in both conventional and unconventional reservoirs in Alaska.

Question 12: Would the USGS be willing to partner with the State of Alaska to conduct a survey on very low oil permeability formations on the North Slope of Alaska?

Response: Yes, the USGS would be receptive to partnering with the State of Alaska to conduct a survey on very low oil permeability formations on the North Slope, subject to the availability of funds and other priorities. In fact, the USGS has a long history of collaboration with the State. We should note, however, that a critical element in such a partnership will be data accessibility – access to three-dimensional seismic and rock samples from cores (as well as the corresponding petrophysical data) will be essential in order to complete a proper assessment of these reservoirs.

Question 13: Soil Metal Mapping: The USGS recently released a series of maps showing soil metal values across the contiguous United States. These maps are very useful for land-use planning and mineral development. Currently no such maps exist for Alaska. Does USGS have any plans to complete a similar product set for Alaska?

Response: A soil geochemical landscapes project in Alaska would be the next step in establishing nation-wide up-to-date soil characterization. The USGS has heard from stakeholders about the usefulness of such a map.

Similar sampling density and protocol would be applied to be consistent with the CONUS data collection. With landscape changes underway due to climate change and land use, we look forward to working with the State of Alaska to provide soil baseline data to calibrate future change. Because Alaska is a vast region that is difficult to access, such an effort would require significant resources above what is currently appropriated.

Question 14: 3DEP in Alaska: I know USGS has entered into a partnership with the State of Alaska and some private firms to conduct the Alaska Mapping Initiative. Alaska desperately needs better elevation mapping. Many of the aviation charts are more than 50 years old and dangerously inaccurate in the state's mountain ranges for private aviation pilots, and also inaccurate for land use planning and development, flood forecasting, wetland protection, and basic scientific research. Oil companies have funded LIDAR

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mapping of the entire corridor of the Trans-Alaska Pipeline, and the proposed route of a pending companion natural gas pipeline.

The Alaska Mapping Executive Committee is doing a wonderful job of obtaining and producing moderate resolution IfSAR elevation data for the state. After this summer, I'm told just under 70% of the state will have been flown, with the hope being that the remaining 30% of the project can be completed within the next 2 to 3 years. But after the raw data is collected, then it has to be processed and formatted into different maps and data layers.

- a. Please outline your vision for completing the next steps of the process, namely the hydrography layer and subsequent production of updated 1:25,000 scale topographic map series for the state.

Response: At current funding levels for the National Geospatial Program (NGP) along with contributing Federal partners, it will take 6 years (2022) to complete statewide coverage of ifsar elevation data and 7 years (2023) to complete the statewide topographic maps for Alaska. If the \$1.5 million proposed additional funds in the 2017 President's budget are enacted, it will take an estimated 5 years (2021) to complete the ifsar coverage and 6 years (2022) to complete all 11,243 Alaska US Topos. Under current funding, only major errors in the hydrography data set are being corrected for the majority of Alaska map production. Approximately 10% of the State's hydrography has been fully updated to meet the higher specifications, where funding contributions have supported such efforts.

- b. What long-term plans and strategies are there to ensure essential geospatial data will be updated and maintained to remain current and accessible for the states?

Response: The NGP updates and maintains national databases of foundational geospatial data layers and delivers them through The National Map (nationalmap.gov). These data support the creation of US Topo products as well as other derived mapping products and services. NGP will continue to investigate potential adoption of technologies that may positively augment our ability to provide national scale, current geospatial data. NGP will also

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continue to be judicious with our program funds and seek collaborative leveraging wherever possible with other Federal, State, and local agencies whose missions rely on up-to-date geospatial data. This is done over multiple years with decadal strategies to make the data as useful as possible.

- c. What support is planned for ongoing collaborative funding and cost sharing efforts to obtain and maintain essential geospatial framework data in Alaska and nationwide?

Response: The Alaska Mapping Executive Committee has a prioritized list of data layers needed to create a robust mapping foundation, and USGS will continue actively working with the AMEC to seek collaborative funding and support for the full suite of mapping needs. With regard to foundational geospatial data and services, USGS/NGP provides support in a number of ways. Through the Alaska Mapping Initiative the USGS is providing funding and technical support for acquisition, processing, and delivery of ifsar data in Alaska. The USGS has also provided funding, technical support, software tools, and training for the update and improvement of hydrography data in the State. Once ifsar acquisition has been completed, the intention is to support the improvement and maintenance of hydrography data. The NGP will also continue to work with data stewards for other key base geospatial layers in the State to ensure the best available data for each theme is incorporated into The National Map and derived products and services.

- d. I know the President's FY 2017 budget proposes to increase funding by \$1.5 million for Alaska, bringing the USGS funding for Alaska, so far, to \$6.7 million. At that rate, how long will it take to publish updated elevation maps for all of Alaska?

Response: Alaska has many broad mapping needs that are not limited to topographic maps. For example, geologic maps are required to characterize critical minerals deposits, natural hazards, water resources, coastal erosion, oil and gas resources, and permafrost throughout Alaska. To date, the USGS National Cooperative Geologic Mapping Program and its STATEMAP partner the Alaska Division of Geological and Geophysical Surveys has produced detailed geologic maps for 17 percent of the state.

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The \$1.5 million proposed increase relates to topographic mapping which is supported/implemented by the USGS National Geospatial Program (NGP). With the proposed increase and continued funding from our Federal partners, we estimate that it would take 5 years (2021) to complete statewide coverage of ifsar elevation data and 6 years (2022) to complete the statewide topographic maps for Alaska.

- e. And will the maps be as accurate as the topographic maps that you are producing for the Lower 48 states and Hawaii?

Response: All Alaska topographic maps are compiled to meet the same National Map Accuracy Standards enjoyed by the rest of the nation, though the overall accuracy of any map depends in large part on the accuracy of the data sources used to generate the map. While the Alaska Mapping Initiative is dramatically modernizing key data themes across the State, many data sources used to compile topographic maps in Alaska are not comparable to data sources used in the Lower 48. Ifsar, for example, is a tremendous improvement over legacy elevation data in Alaska. Although it is ideal for Alaska in part because of its ability to observe through cloud cover, ifsar does not equal the fidelity of lidar data used elsewhere in the nation for acquiring elevation data. As a result, the accuracy of individual elevation points used to generate contours in Alaska is not equal to the accuracy, or density, of elevation points derived from lidar in the Lower 48. For other data themes NGP harvests the best available data sources to add other map layers - such as transportation, buildings, trails, and boundaries - to the topographic maps. Many of these datasets come from State and Federal partners, who continuously improve and update their contributed data layers for the project. While this follows the same procedure used for map compilation in the Lower 48, the availability, resolution, currency, and accuracy of the data provided in Alaska may not be equal to data used for topographic map compilation in other states. However, opportunity exists to continue modernizing map data across Alaska. For example, in areas where lidar is well suited for critical applications and terrain, such data would increase the positional accuracy of elevation data and other key data themes (e.g., hydrography) in those areas.

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Question 15: STATEMAP: Within the National Cooperative Geologic Mapping Program (NCGMP), the USGS has a valuable and highly productive cooperative geologic mapping program with the states called STATEMAP. STATEMAP leverages federal funding by requiring states to match federal grant dollars 1:1. This year \$5.5 million, or roughly 20% of this program's funding was made available to the states. However, this year, as in most years, the states left a roughly equal amount of funding on the table as the USGS did not make sufficient funds available to fully leverage the available state funding.

- a. Within the current budget constraints, can USGS increase the amount of funding available to the states under this program to fully leverage the available state funding?

Response: Over the past 20 years, the NCGMP has served as a valuable State-Federal partnership that has greatly accelerated the production of critically needed geologic map information for our Nation. The reauthorization of the NCGMP in 2009 stipulates that, of any appropriated amount over that of FY 2005, half would be reserved for STATEMAP. The appropriated level of NCGMP, however, has remained at about \$25 million since 2005.

- b. During the 23 years of the NCGMP the states have produced almost 4,000 geologic maps covering over 500,000 square miles with only 20% of this program's funding. The bulk of the remaining funds are allocated to the federal portion of this program called FEDMAP. How many maps has the USGS published under FEDMAP during this time with its share of the funding?

Response: A direct comparison of map production under STATEMAP and FEDMAP can be misleading. Federal funding for the STATEMAP component of NCGMP must by law be directed entirely to cost-sharing for preparation of geologic maps. All other activities that a State geological survey must address in its role as the State's geologic authority (including publication of those maps) are necessarily borne by other funding sources. In contrast, funds for geologic investigations under the FEDMAP component are not entirely directed to the preparation of geologic maps. In addition to the compilation and preparation of geologic maps, FEDMAP funds also are

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directed to: (1) publication costs for those maps, (2) applied studies that require fieldwork, geophysical data collection, and three-dimensional geologic modeling (often resulting in scientific publications rather than maps), (3) geologic studies in cooperation with other Federal agencies, (4) paleontologic and geochronologic investigations and age-dating (which support geologic mapping), (5) development of the Congressionally-mandated National Geologic Map Database, as well as (6) the duties and responsibilities connected with managing a national program.

Maps produced under STATEMAP are typically prepared at the most detailed mapping scale (1:24,000). In contrast, projects funded under the FEDMAP component tend to be of large regional scope. While fewer maps are produced, the area of coverage is substantial. For example, in 2012, 213 maps were published by state geological surveys covering about 73,000 square miles, while 22 maps were published by the USGS, covering about 50,000 square miles. For the time period 1996-2005, approximately 1,150 geologic maps were prepared with FEDMAP funding, covering an area of roughly 430,000 square miles.

Question 16: In the FY 2016 USGS budget, the Appropriations Committee rejected the USGS's proposed deletion of \$2 million for mapping activities, and directed the Survey to continue geologic mapping activities in areas of the country where high mineral and energy resources remain unmapped at a reasonable scale. While you talked about this in your letter to me, could you describe in more detail how these funds are being utilized, and what parts of the country are being mapped as a result.

Response: The \$2 million in funding supported ongoing mineral resource investigations, such as the hyperspectral surveys in Alaska.

Question 17: The National Geological and Geophysical Data Preservation Program (NGGDPP) is a very important collaborative program for the states that leverages federal funds, yet this program has been funded far below its authorized level since passage. In my home state of Alaska, the state for years was seeking funding to build a new storage facility for drilling cores. It finally gave up on federal funding and just paid for a new storage facility totally from state dollars.

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- a. Why has the USGS not proposed more funding for larger projects, in addition to small data preservation projects?

Response: Annually, the NNGDPP awards approximately \$800k to competing state geological surveys for preservation of geoscientific materials (for example, samples, logs, data, maps, photographs). Per Section 351 of the Energy Policy Act of 2005, which established the NNGDPP, the Federal share of project costs cannot exceed 50%. The minimum Federal to state 1:1 match requirement and limited federal funds prevent states from proposing larger projects.

Question 18: Alaska Volcano Observatory: Does USGS have plans to fund more maintenance of the analog seismic network that AVO is operating in Alaska? If so how much will be going to the system this year and next?

Response: To address public safety concerns, the USGS used funding received in 2015 to bring defunct and severely impaired networks back on line. This required some maintenance of existing analog telemetry links that USGS cannot use past 2020. The USGS will continue to maintain the existing analog telemetry until the networks are transitioned to digital or regulation prohibits use. The amount spent on analog telemetry will decline as the digital system matures. In FY16, USGS will spend about 70% of its field maintenance budget on restoring analog equipment. However, USGS will make no new capital investments in analog technology.

- a. The Federal Communications Commission has decided to sell the frequencies that the current analog seismic monitors are transmitting on by 2020. How is the USGS planning to deal with the frequency issue? If you have to replace the current stations with digital transmitters because of the frequency issue, how much will it cost and will the agency have the money in its budget to pay to replace the entire system, which I'm told could cost upwards of \$25 million to convert to digital technology?

Response: USGS radio telemetry networks fall under the direct jurisdiction of the National Telecommunications and Information Administration (NTIA) for radio spectrum allocation. Changes to the spectrum allocation made some USGS telemetry networks for volcano monitoring in Alaska non-compliant. NTIA

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authorization permits USGS use of the deprecated frequencies until 2020, providing USGS more time to bring the system into compliance by transitioning the networks to new digital spectrum. Whenever possible, the USGS has made analog to digital conversions. The estimated cost of upgrading existing analog telemetry to a compliant digital system is \$18.5 million over four years or \$20.2 million over three years. Due to unpredictable weather in the Aleutian Islands and on the Alaskan Peninsula and limited availability of specialized vendor equipment, a four-year conversion plan may not afford the time to complete the transition before the NTIA waiver expires. Completing the conversion in three years, instead of four, requires the additional \$4 million for increased logistical support costs (e.g., additional aircraft and boat charters to simultaneously deploy engineers and equipment to remote sites, contracts for instrument installations). At the current funding levels, the USGS will continue to maintain the existing analog telemetry until regulation prohibits this use and make analog to digital conversions whenever possible. Typically, the USGS converts six to eight stations to digital per year. The USGS is exploring options to address the regulations over radio frequency spectrum allocations, which require USGS to convert from the current analog frequencies by 2020.

- b. The President's FY 17 budget proposed a tiny increase for the Volcano Hazards Program, just \$117,000. My concern is that the AVO seismic network has been underfunded for several years. Right now two of the stations are offline and one is barely functioning. About 24% of the seismic monitors on Alaska volcanoes are not functioning – and while that is a big improvement over the 40% that were not working the year before, it still is a problem. What do you plan to do, to ensure proper funding for the AVO?

Response: With the 2015 and 2016 funding increases, Alaska Volcano Observatory (AVO) is repairing moribund volcano monitoring networks to working order over the next 3 years. With funding in 2015 and 2016, Alaska Volcano Observatory (AVO) is making analog to digital station conversions with prioritization on Very-High-Threat and High-Threat volcanoes that currently have mixtures of analog and digital stations, where additional conversions will bring the entire network into NTIA compliance. The USGS has identified five Very High Threat and 27 High Threat volcanoes in Alaska. None of these 32 volcanoes has complete monitoring networks by National

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Volcano Early Warning System standards. The USGS estimates 237 additional monitoring instruments (e.g., seismometers, GPS receivers, and remote cameras) are needed to close the gaps.

Question 19: Alaska Earthquakes: As I mentioned to Secretary Jewell at a hearing earlier this year, Alaska was hit with a magnitude 7.1 earthquake in January. Fortunately the damage was fairly limited as it occurred in a sparsely populated area -- Iniskin -- southwest of the Anchorage "Railbelt" region. But Alaska has been rocked on average once every 13 years since 1900 by a quake that is larger than 8.0 in magnitude. We faced the second largest earthquake ever recorded on March 27, 1964 in Southcentral Alaska (9.2).

- a. In 2000 Congress authorized the Advanced National Seismic System to "establish and maintain an advanced infrastructure for seismic monitoring throughout the U.S. that operates with high performance standards." Some 16 years later, many of the baseline performance standards set by the program have not been achieved in Alaska. As other states move to establish early warning earthquake systems, what is the Survey doing to make sure Alaska has access to the instrumentation, technology and funding need to expand and modernize its seismic infrastructure?

Response: Over the past 15 years, the USGS has invested in earthquake monitoring and reporting, seismic hazard assessment and other earthquake loss reduction activities in Alaska, and maintains good collaborations with several stakeholder groups in the state.

Examples include: The USGS funds the Alaska Earthquake Center (AEC) at the University of Alaska Fairbanks (UAF) through a competitive cooperative agreement at about \$600,000 per year; supports the Anchorage Strong Motion Network, a collaborative effort among the USGS, UAF, and Alaska Division of Geological & Geophysical Surveys, in which the network consists of more than 30 free-field stations, a borehole site, and several instrumented buildings and bridges; and supports a number of improvements to the Anchorage and Alaska regional seismic networks. In 2010, the USGS awarded UAF with \$483,000 plus seismic equipment for upgrading these networks and has improved the Anchorage monitoring infrastructure. As a result, high-quality data on how shaking varied across the Anchorage urban area were successfully collected from the January

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2016, magnitude-7.1 earthquake. The USGS has also supported the Delaney Park geotechnical array in Anchorage, operated by the Univ. of California. Other USGS monitoring investments in Alaska include USGS National Network stations, other stations operated by the USGS National Strong Motion Project, and the services provided by the USGS National Earthquake Information Center.

- b. Language was included in the FY 2016 omnibus bill for USGS to conduct a cost-benefit study related to earthquake monitoring in Alaska. What is the status of the report and when will its findings be available?

Response: A working group has been formed to conduct a cost-benefit study for monitoring improvements in Alaska; this task will be completed in the summer of 2016. The working group will consider the costs and benefits of seismic station adoptions, earthquake early warning, as well as improvements to existing monitoring operations. USGS will use the results of this study in its planning for future investment in seismic monitoring in Alaska.

Question 20: Alaska water research: Back in 2007 I sponsored and won approval of an Alaska Water Resources Act that was intended to have USGS conduct surveys of where water aquifers are located in urban population areas of Anchorage, the Mat-Su Valley, the Kenai Peninsula, and Fairbanks. In 2007 it appeared that Alaska was the only state that had not been the subject of USGS surveys of its aquifers for potable drinking water. To my knowledge the act was never implemented by USGS prior to its sunset date in 2012.

- a. Is there any funding available today for USGS to conduct surveys of the extent of aquifers in areas of Alaska?

Response: Although the Alaska Water Resources Act passed in 2007, no funding was appropriated to implement the legislation and to conduct the studies described in the Act. Under other authorities, USGS cooperated with the Alaska Department of Natural Resources to assess shallow groundwater resources in the Mat-Su Valley. This work included development of a computer simulation model for analysis of regional-scale groundwater availability. Also in 2013, the USGS produced a paper providing an overview of the issues relevant to understanding groundwater statewide, highlighting the importance of groundwater to surface

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water exchange in understanding groundwater availability in Alaska. There are no USGS funds currently identified to conduct surveys of the extent of aquifers in areas of Alaska.

Question 21: The following text appears on the USGS website: "USGS biologists revolutionized thinking about managing wildlife resources, which has provided a sound scientific basis that lets waterfowl conservation and recreational hunting work in tandem as adaptive management, not as conflicting interests."

I share an interest of many Alaskans in the black brant, which is a subspecies of goose that breeds in Alaska and winters in Baja California, and have a few questions about the species.

- a. Has USGS conducted any studies regarding the migration and winter habitat of the black brant? And, if not, has USGS compiled information about studies by others on this subject?

Response: The Pacific Black Brant is a subspecies of black brant that breeds in Alaska and winters in multiple locations along the Pacific Coast, including Alaska. Izembek Lagoon, Alaska, is the primary fall (supporting >95% of the population) and spring (supporting 70-80% of population) staging area for Pacific Black Brant nesting in western Alaska. Fall migration typically involves a mass departure from Izembek Lagoon with a direct transoceanic migration to the west coast of the U.S. and/or Mexico. Historically, most brant wintered in southern California and Mexico, but the number of brant wintering in these locations is declining and a greater number are now overwintering in Alaska. Spring migration tends to follow the coast in a series of shorter migration movements utilizing coastal estuaries along the U.S. and Canada as staging locations.

The USGS has conducted and participated in multiple studies regarding migration and wintering of Black Brant. In recent years, Izembek Lagoon has become a significant wintering area for brant, with numbers of birds increasing from less than 5,000 in the early 1980's to greater than 50,000 in the mid-2010's. Similarly, Bahia San Quintin in Baja California, Mexico, supports 50-60% of Pacific Black Brant during winter. A comprehensive list of relevant studies can

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be found on the USGS website
at:<http://alaska.usgs.gov/science/biology/waterfowl/geese.php#BLBR>.

- b. How many miles of roads are located along the black brant migration route, or located within black brant wintering habitat in California and Mexico?

Response: To our knowledge, there are no assessments of the number of miles of roads located along the black brant migration route or within black brant wintering habitats.

Question 22: Arctic: The USGS FY 2017 budget proposes an increase of \$8.8 million for USGS activities related to the Arctic.

- a. Can you talk in more detail on the agency's Arctic priorities?
- b. What specific research and activities are you proposing to conduct next year if this initiative is funded?

Response: The USGS would support research and development efforts focused on the Arctic through a multidisciplinary approach designed to both individually understand and holistically evaluate ecosystem processes and interactions in the Arctic in order to provide the objective science needed for effective management of Arctic resources.

Here are some examples of such work:

- The Environments Program would use the \$1 million increase requested in FY 2017 to analyze certain fish habitats and polar bear populations.
- The National Climate Change and Wildlife Science Center would use the \$500,000 increase requested in 2017 to analyze glacier loss and impacts, especially on salmon.
- The Land Remote Sensing Program is requesting an increase of \$1.86 million to use remote sensing to predict permafrost melt.
- The proposed increase of \$3.5 million for the Natural Hazards Mission Area would accelerate work in underserved Arctic communities, particularly relating to coastal change.

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- The Water Availability and Use Science Program is requesting an additional \$1.95 million for the to assess hydrological changes in a warming Arctic.
- c. Is this new money, or money being shuffled from existing programs?

Response: The \$8.8 million increase requested in the 2017 President's Budget is a request for new funding. Additionally, an increase of \$1.5 million within the National Geospatial program for Alaska map modernization will be used in the Arctic region and a proposed decrease in the Mineral Resources program reduces Arctic spending by \$500,000. Including the Alaska map modernization funding to be used in the Arctic, the President's budget request includes an increase of \$9.8 million for USGS Arctic.

- d. Will this research improve our understanding of the resource potential in the Arctic, for either oil or gas or mineral development, or is all of your pending research aimed at other types of research?

Response: In the 2017 President's Budget Request, no funding increase was identified specifically in support of Arctic oil and gas resource assessments. The USGS Energy Resources Program (ERP), within the USGS Energy and Mineral Resources Mission Area, conducts oil and gas resource assessments across the Nation. However, the ERP has several ongoing active projects in the Arctic, including research on unconventional oil and gas (UOG), which will continue with base program funds. These funds will allow for continued studies of shales and other tight formations on the Alaskan North Slope that will help underpin more accurate resource assessments and reduce the uncertainty associated with resource development.

Question 23: Alaska Seismic Network stations/Earthscope: Right now there are several slightly different seismic networks at work in Alaska. Alaska has a little over 100 seismic stations operated by the USGS and the State Seismologist/University of Alaska, partially with grant funding from USGS. The State is about to get more stations, for a total of 260 as a result of the Earthscope project already funded by the National Science Foundation, which is paying to install 260 stations statewide to conduct the first two-year study of hidden "fault" zones in Alaska – the last place in the nation where the Earthscope survey still needs to be conducted. That network will be fully installed by summer 2017. It will

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operate for two years and then NSF will want to get rid of the stations for a nominal cost. The State, according to State geologist Steve Masterman, will want to acquire many of the stations as the backbone of a beefed-up state seismological network. While NSF might be willing to sell the stations somewhat cheaply to Alaska rather than pay for decommissioning, the question is funding to operate them given Alaska's fiscal crisis.

- a. Alaska is predicting it will cost about \$2.5 million a year to operate and maintain just 100 of the stations. Can USGS provide additional grant funding to help maintain and operate that network – the backbone for an early warning quake network for the North Pacific?

Response: The USGS would be willing to work with the State of Alaska, the National Science Foundation and the Congress to develop a plan to maximize the long-term benefit of NSF's investment in the Earthscope Transportable Array in Alaska. Our understanding is that NSF plans to fund the deployment in Alaska into FY 2019, subject to the availability of funds. The USGS Earthquake Hazards Program does not have flexibility to divert resources at current funding levels. USGS funding does not currently support any portion of the NSF investment in ETA in Alaska. I plan to discuss this matter with the Alaska state geologist and other officials.

Question 24: On top of the seismic monitoring network, there are the 140 separate stations of the Plate Boundary Observatory. Some of these stations are operated in connection with the earthquake monitors, but these are GPS stations that actually measure crustal deformation and are most useful for giving a pre-warning of both earthquakes and volcanic eruptions. The stations also are a major component of the Continuously Operating Reference Stations (CORS), which are the quality control for GPS surveying and navigation and form the geodetic control network in Alaska. There is a growing dispute between Alaska and the BLM over the types of land surveys needed for the government to finish conveying to Alaska and Native corporations their land conveyances under the Alaska Statehood Act and the Alaska Native Claims Settlement Act. There is a technical dispute over the accuracy of GPS surveying techniques, but the dispute is partially the result of the state's concerns that there are just not enough CORS stations in Alaska to guarantee the accuracy of GPS land surveys and patents. My questions are:

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- a. Does USGS have any plans for maintaining and more fully funding the Plate Boundary Observatory in Alaska and any plans to actually add more CORS stations in Alaska?

Response: No. The USGS is not a land surveying entity and does not operate any GPS reference stations in Alaska. CORS is a NOAA/National Geodetic Survey project. The USGS cannot comment on plans for long-term survey reference sites in Alaska.

- b. Do you have any opinion on the accuracy in Alaska of using GPS surveys for land patenting at the present time? If the number of CORS stations were increased, would the process be more accurate and how many more stations will be needed to reach a level of accuracy needed for land conveyance patents in your opinion?

Response: No. The USGS is not a land surveying entity and does not operate any GPS reference stations in Alaska. CORS is a NOAA/National Geodetic Survey project and the USGS cannot comment on the conditions and capabilities of the system.

Questions from Senator Joe Manchin III

Question 1: In 2004, Josh Bolten, the Director of the Office of Management and Budget issued a bulletin to all government departments and agencies entitled "Final Information Quality Bulletin for Peer Review." The bulletin is meant ensure the credibility of scientific information that is released by the federal government. The OMB granted agencies broad discretion in the manner in which a document would be considered either "Highly Influential Scientific Assessment" or "Influential Scientific Information." It is my understanding that the classification of "highly influential scientific assessment" is considered more influential.

While the USGS is a non-regulatory, fact-finding agency you have noted in your testimony before this committee that the USGS works closely with other regulatory agencies, such as the EPA, to "complement their research activities and contribute sound science for their decision making."

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Director Kimball, can you tell us how the USGS determines if a research product is deemed “Influential Scientific Information” or a “Highly Influential Scientific Assessment”?

Response: In determining if USGS research is influential or highlight influential, we refer to the OMB definitions of for “Influential Scientific Information” or a “Highly Influential Scientific Assessment,” and rely on our knowledge of the importance of the topic to society. In addition, we provide our managers and authors with supplemental guidance from the OMB and with internal guidance, processes, and tools developed in-house to help in making those determinations.

Question 2: Director Kimball, on March 28th, 2016 the USGS published a projected forecast for seismic activity in the Central and Eastern United States for 2016. This report examined natural and human caused or “induced” seismic activity —meaning earthquakes attributed to human activity. The report also included a projected forecast for earthquakes in these areas. The report states that earthquake rates were stable between 1980-2010 in the Central and Eastern US followed by a “marked” increase in earthquakes since 2010, with various scientific studies demonstrating that a “majority” of earthquakes are attributed to wastewater injection activities in deep disposal wells.

The report acknowledges there is limited evidence to indisputably conclude the increase is caused by human activities such as fracking.

I suppose my first question whether this report is considered by the USGS to be “Influential Scientific Information or a Highly Influential Scientific Assessment?”

Response: While certainly newsworthy, the report did not meet the technical determination of an “Influential Scientific Information” or “Highly Influential Scientific Assessment.” This is because it was based on previously published information and is based on a 1-year model that will be subject to updates.

My second question, Director Kimball, is that Perry, Ohio was one of the Zones of Induced Seismicity examined in this report. Given the proximity of Perry, Ohio to West Virginia and the fact my state sits on similar geological formations for purposes of natural gas extraction as Ohio, did you find any evidence in your report to suggest human-caused seismic activity other than that in the Ohio location?

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Response: USGS identified 21 zones within which peer-reviewed papers had identified seismicity as likely being induced. Seismicity outside of those zones was considered to be natural and treated as such in the analysis. USGS is not aware of any peer-reviewed studies that identify seismicity within West Virginia as being induced.

Questions from Senator Bill Cassidy

Question 1: USGS' budget request includes funding for research on the potential impacts of oil production from unconventional sources – including threats of induced seismicity and potential impacts of oil and gas development on water and ecosystems.

Recently USGS released a 1-year seismic hazard forecast for the central and eastern United States for 2016, which included for the first time, potential ground shaking hazards from both human-induced and natural earthquakes.²

Stanford professor Mark Zoback and Ph.D student Rall Waslsh released a study last summer that does not attribute the rise in earthquakes in Oklahoma with oil production from unconventional sources using unconventional methods such as hydraulic fracturing. Instead, their study shows that increased rate of injection of wastewater from well formations using conventional oil extraction techniques³ has been the primary cause of the recent increase in earthquakes in the central United States.

However, media reports seem to suggest otherwise, linking fracking with earthquakes with headlines such as “7 Million Americans At Risk of Fracking-Related Earthquakes, USGS Says.”

- Based upon USGS' work, can you confirm for me that hydraulic fracturing (or “fracking”) is rarely responsible for the cause of felt earthquakes?

² This one-year outlook for the nation's earthquake hazards is a supplement to existing USGS assessments that forecast earthquake shaking over 50 years.

³ Ker Than. *Oklahoma earthquakes linked to oil and gas wastewater disposal wells, say Stanford Researchers*, Stanford Report (June 18, 2015)

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Response: The cited headline is misleading; USGS has been very clear in its scientific publications and media advisories to explain that most induced earthquakes large enough to be felt at the surface are not triggered by the stimulation step that is part of the hydraulic fracturing process, but rather by the injection of wastewater (flowback and produced waters) attendant with the process. In the United States, earthquakes induced by fracking have only rarely been large enough to be felt at the surface (magnitudes no larger than 3.0). There have been no reports of damage due to fracking-induced earthquakes in the U.S.

- Regardless of how it is portrayed in the media, isn't it true that wastewater disposal - an activity permitted under the federal Safe Drinking Water Act - is the primary cause of the recent increase in earthquakes in the central United States?

Response: Yes. Wastewater disposal by deep injection seems to account for all of the cases of damage by induced earthquakes associated with modern oil and gas activities.

- Isn't it also true that relative to the number of injection wells in the United States, which are close to 40,000, very few injection wells have been linked to induced seismicity and that the risk from these wells is very low?

Response: Roughly one well in a thousand seems to induce earthquakes large enough to be of concern to the public. However, high injection rate wells (>300,000 barrels/month) are much more likely to be associated with earthquakes than lower rate wells; these may account for 10% of the wells associated with earthquakes.

- Why didn't USGS prepare a similar analysis several years ago when the number of earthquakes in the central US was ballooning?

Response: By the end of 2011, it was clear that within the central and eastern U.S. the earthquake activity was increasing and that the likely cause was fluid injection related to the modern boom in oil and gas production. In response to this, the USGS initiated a new effort to investigate these new sources of earthquake activity. Motivating the USGS hazard assessment that was described in the recently released

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report required convincing a large body of stakeholders that the new earthquake sources were due to human activities.

It also required developing new technical approaches specific to these new sources of hazard. The 2016 report represents the first short-term forecast of earthquake hazard that the USGS has produced other than a large-earthquake aftershock forecast. It is a robust product, thoroughly reviewed and vetted by experts in the field, and rigorously reviewed for scientific integrity.

- Since risk must focus on both hazards and exposure level(s), what are the risks associated with these seismic events relative to their proximity to both people and property?

Response: The USGS Open-File Report is only intended to assess the hazard, not the risk. Risk is assessed by state and local government agencies, among others; it requires local knowledge of building fragility, proximity to critical facilities, and the like.

- Do all of these earthquakes have a similar intensity?
- Do all of these earthquakes reach surface level?

Response: No. Intensity is a measure of earthquake shaking effects. Whereas magnitude is a measure of the size of an earthquake, the intensity of that earthquake depends mostly on how far from the earthquake the intensity is measured. Intensity gets smaller with greater distance from the epicenter.

Large earthquakes can involve fault slip that extends from depth to the surface, causing visible breaking of the ground; however, to date all earthquakes identified as induced have occurred on buried faults with no surface rupture.

- What action can concerned citizens take to prevent injury or property damage?

Response: Anyone living where earthquakes, natural or induced, occur should be prepared for earthquake shaking. There is a large body of literature that describes how to be prepared for earthquake effects, for example at fema.gov/earthquake.

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- Will the USGS prepare an assessment for 2017 of the risk of damage from earthquakes in 2017?

Response: The USGS 1-year hazard assessment published in March 2016 was an experimental product; we have not committed to publish an annual assessment of induced earthquake hazard in the United States. The Administration has requested an increase of \$700,000 in FY 2017 for our work on induced seismicity—which, if funded, would support such an annual assessment.

Question 2: The Safe Drinking Water Act, Underground Injection Control program, obligates either states or the EPA to regulate wells that dispose of oil and gas field waste or brine (UIC, Class II wells).

Both state and federal regulators use procedures to mitigate seismicity including avoiding injection near existing faults, and reducing injection volumes or pressures or terminating injection if earthquakes are tied to an injection well.

- What actions are state regulators in Oklahoma and Kansas taking to reduce the man-made earthquake risk?

Response: In both states, regulators are using earthquake data recorded on regional and local seismic networks to associate wastewater injection operations to nearby earthquakes. On this basis, well operators are being required to either reduce injection rates or to terminate injection. This seismic monitoring approach to regulation seems to be effective. Additional information may be obtained from the relevant state regulatory agencies.

- Have any risk reduction and mitigation strategies required by state regulators been conducted in collaboration with affected stakeholders such as industry, academia and environmental organizations?

Response: This question would be most appropriately directed to EPA—the USGS is not a regulatory agency and does not track state regulation of wastewater injection.

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- o Are there economically viable alternatives to injecting produced water, for example processing and reuse?

Response: The USGS does not have information on the economic viability of alternatives to wastewater reinjection though we are aware that other agencies, such as the Department of Energy, are investigating such alternatives.

- o Is the earthquake risk likely to decline in Oklahoma and Kansas as production declines due to low oil prices?

Response: It seems likely that as oil (and gas) prices decline, demands for wastewater injection/disposal would also decline, and therefore lower the chances of earthquake triggering. However, the earthquake triggering phenomena is complicated and we know of no published study that has confirmed these associations.

- o Dr. Zoback suggested that injecting the wastewater back into the producing well formation as a way to mitigate any risks associated with wastewater injections.

- Has USGS conducted any research or studied the viability of this technique to reduce the occurrence of seismic activity?

Response: USGS has not field-tested this possible hazard mitigation technique, but our research generally supports this statement. In fact, about three-quarters of wastewater is, and has been in the past, injected into oil and gas reservoirs to enhance production (~856 Mbbl/year), yet there are very few cases of seismicity resulting from such operations.

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Questions from Senator Mazie Hirono

Question 1: *Rapid 'Ohi'a Death*

The 'Ohi'a tree is a native species that is an anchor to Hawaii's rainforests and is currently being threatened by Rapid 'Ohi'a Death, or ROD. As of early 2016 ROD, which has a 100% mortality rate for infected trees, has impacted 34,000 acres of native forests on Hawaii Island. As you can imagine, this crisis situation requires a coordinated effort by local, state, and federal efforts, including the USGS.

Can you provide an update on the models that USGS scientists have been constructing to predict the spread of the fungus that causes ROD? When will these models be ready to implement and how has the recent prediction by scientists that burrowing beetles are spreading ROD impacted model development?

Response: The USGS is starting an effort to analyze data on the location and characteristics of sites with confirmed ROD cases to characterize the physical and biological factors that affect distribution of ROD across landscapes on Hawai'i Island. We are currently working with our partners at the USDA-Forest Service, University of Hawai'i, and the Hawai'i Division of Forestry and Wildlife to compile and organize the widespread information collected to date on the location, tree data, and habitat characteristics of confirmed ROD sites and adjacent areas, as well as data on the distribution of ROD that was collected during recent aerial surveys. If available, information of the distribution and spread of ROD by insects and other vectors will be included in the analysis. The data will be used to identify both spatial and temporal characteristics of the distribution, spread, and habitat characteristics of the *Ceratocystis* pathogen on the island of Hawai'i, and to assess its severity and impacts on 'ohi'a forest types within a range of moisture and elevation regimes.

We expect that our models will allow us to make predictions about the potential spread of the pathogen into other forested areas throughout the Hawaiian archipelago. Effective management requires a clear understanding of the potential distribution of *Ceratocystis*, along with rates and patterns of ongoing spread and subsequent 'Ohi'a tree mortality. This information will help identify options that may be taken to reduce the potential for spread of *Ceratocystis* into other important natural resource areas, particularly those supporting important ecological, economic, and cultural areas.

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We have also started the development of genetic methods for the detection of the fungus that is causing ROD. We have developed and tested a lab method and are now working on three things: 1) we are refining the method to distinguish between the two strains of the ROD-causing fungus; 2) we are collaborating with the USDA Agricultural Research Service on analysis of field samples and validation of methods, and; 3) we are modifying the methodology so that the analysis can be done rapidly in the field.

Question 2: *Alibizia Work*

USGS, in collaboration with UH-Hilo, worked to collect satellite imagery of the forest canopy in Puna, on Hawaii Island, following Tropical Storm Iselle in the fall of 2014. This imagery was gathered to assess the most heavily impacted areas and develop a model of tree canopy conditions that were impacted during the storm.

Can this model be used to identify the highly invasive albizia trees in areas with canopy conditions (species composition, height, and density) similar to those impacted by Iselle in order to locate and remove albizia trees to mitigate impact from future storms? What other steps can be taken to identify albizia trees and potential hazard locations for the future?

Response: Yes, Pictometry Satellite Imagery can be used to detect albizia trees in areas with canopy conditions similar to those impacted by Iselle. Scientists at the USGS Pacific Island Ecosystems Research Center, in collaboration with staff at the University of Hawai'i at Hilo's Cooperative Studies unit, are currently analyzing data collected from pre-and post-hurricane dates in the lower portion of the district of Puna where hurricane Iselle has its greatest impact when it made landfall in August 2014. Pre-Iselle data was collected by the University of Hawaii, and post-Iselle data is based on Pictometry Satellite Imagery.

Our study area in the Puna District covers 28,417 acres, and included some of the most heavily wind-damaged forests near Pahoa, Nanawale, Lava Tree State Park, the Pahoa Kapoho Road, and Pohoiki Road. Fallen trees cover 346 acres of the study area. An Albizia map produced by UH Hilo indicated that 2,686 acres was covered by Albizia forest in 2014; thus we can calculate that about 12.9% of the Albizia forest in the study area was blown down during the 2014 storm. Although we cannot determine for sure if

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Iselle caused all of these trees to fall based on these snapshots in time, the timing is suggestive since these fallen trees are no longer visible in more recent imagery taken in January 2016 due to vegetation regrowth.

Our work is now focused on evaluating the characteristics of damaged versus undamaged areas. We have plots in damaged and undamaged areas, and are determining the percent cover, tree height, and species composition using very high-resolution aerial imagery. For each plot we are also identifying site characteristics (e.g., proximity to roads or non-forest lands, slope of the land) and habitat characteristics (e.g., soil and lava type and age, rainfall, elevation) to be used as variables in our analysis of the spatial patterns of impact from hurricane Iselle. The results of this study should help us to construct a spatial model that can help predict other areas throughout the State that may suffer from similar impacts from future hurricanes.

Question 3: *Water Resources Data Collection*

Freshwater availability is a growing concern in our nation, but especially in Hawaii as an island state that is affected by increased temperatures and decreased rainfall events. USGS's stream gages have played an important part in monitoring the current and historic freshwater availability in the state.

How can we leverage this tool to encourage our communities to embrace a culture of freshwater conservation?

Response: In a 2004 publication, the USGS showed that streamflow at all seven long-term streamflow stations in Hawaii declined significantly during 1913 - 2002. Similarly, streamflow declined at most other stations with 50 years or more of record. Streamflow declines corresponded to declining rainfall, which likely is reflected in a reduction in groundwater storage and recharge. The USGS currently is working with the Hawaii Community Foundation and the Aloha+ Challenge Dashboard on these issues. Continued long-term monitoring and the evaluation of the inter-relationship of groundwater, surface water and climate is key to documenting changes in water availability and to making sound decisions. However, the number of streamgages in Hawaii, which are key to assessing island water resources, has been reduced from about 200 streamgages in the 1960's to about 70 today.

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Question 4: *USGS Facilities in Hawaii and the Pacific*

Many USGS facilities are over 40 years old and outmoded. However, the mission of some USGS organizations such as the National Wildlife Health Center and its Honolulu Field Station are expanding in Hawaii and the Pacific and are in need of modernized laboratory spaces.

In light of this, what are USGS's plans for modernization of facilities?

Response: The science the National Wildlife Health Center (NWHC), the Honolulu Field Station (HFS), and other United States Geological Survey (USGS) Science Centers perform is vital to the management of this nation's natural resources, and to the protection of public health, the economy and national security. The USGS is aware of the need to modernize many of our facilities, including the NWHC. The USGS is currently working to identify the modernization needs of its mission critical portfolio to continue to accomplish the bureau's scientific mission and will continue to evaluate and address modernization issues as the budget process allows.

Question from Senator Elizabeth Warren

Question: Last month, researchers at USGS published a paper suggesting that a static model for future sea level rise is insufficient. Although sea level rise will submerge many landscapes along the Atlantic Coast, large portions of the coastline sea level rise may instead be altered and disrupted in response to rising sea levels.

Good information about the precise effects of sea level rise will be critical to mitigating against its impact, and the paper indicates that these effects may not be simple to predict. Given that, what next research steps are necessary and how can USGS help us better understand the impact of climate change and sea level rise on the Atlantic Coast?

Response: Evaluating the variable response to sea-level rise (SLR) beyond a static model highlights a number of research areas that will improve assessments and forecasts of the vulnerability of ecosystems, landscapes, communities and infrastructure to climate change and sea-level rise. Research that identifies feedbacks between the geologic, oceanographic and hydrologic processes that drive erosion, flooding, and recovery of coastal systems is a fundamental need that informs our understanding of coastal

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resilience. We also require better knowledge of ecological responses to coastal change, such as thresholds at which wetlands may no longer be able to migrate inland or accrete vertically, which determine their sustainability and ability to provide critical ecosystem services. Quantifying ecosystem benefits, from assessing the value of mainland coastal protection afforded by barrier islands to estimating the impact of habitat loss on our economy, puts a dollar amount on what we stand to lose in the face of climate change and can be used to quantify tradeoffs in different adaptation pathways. We know that impacts to coastal areas occur at both short (storm events) and long (SLR) timescales, but research is needed to integrate these timescales to provide robust forecasts of hazards and vulnerability useful for planning. As climate change impacts are increasingly felt, people will continue to modify coastal environments depending on the level of the threat and resources available to them; we still have much to learn about how these modifications affect coastal processes and environments, as well as how to anticipate and include human actions in our coastal hazard forecasts. As we address research needs to enhance decision support, we also need to build baseline data and observational capacity to make consistent products available throughout the Atlantic coast, and for vulnerable coasts nationwide. Finally, we must invest in delivering our research findings in ways that are actionable by a broad spectrum of decision makers from federal agencies to local emergency responders.