

**THE DEPARTMENT OF THE INTERIOR'S BUDGET
REQUEST FOR FISCAL YEAR 2017**

HEARING
BEFORE THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED FOURTEENTH CONGRESS
SECOND SESSION

FEBRUARY 23, 2016



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THE DEPARTMENT OF THE INTERIOR'S BUDGET REQUEST FOR FISCAL YEAR 2017

Tuesday, February 23, 2016

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The Committee met, pursuant to notice, at 10:04 a.m. in Room SD-366, Dirksen Senate Office Building, Hon. Lisa Murkowski, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM ALASKA

The CHAIRMAN. The Committee will come to order.

Welcome, Secretary Jewell, as well as other members of the Department of the Interior (DOI). It is good to have you with us today. We are meeting this morning to review the budget request for the Department of the Interior for Fiscal Year 2017.

Secretary Jewell, welcome back to the Committee. You and I have had many discussions over the years since your tenure at Interior, and you know that I have expressed my concerns about how Interior has approached some of the issues in Alaska as well as the rest of the nation over the past eight years. But as you and I have discussed, we need to figure out how we can find those opportunities to work together. I think there is agreement that there are plenty of areas where it should be possible to find that agreement, but I have to be very frank with where we are this morning when we look at the budget in front of us. It looks like, again, a rocky start to the final year of this Administration.

Some of the things, and I will include this as part of my questions to you this morning, but the first one that strikes me is Interior's proposal to assist Alaskans impacted by climate change through this new resiliency fund. It appears to be modeled after a provision of a bill that I wrote, the Opens Act, that our Committee reported out last July. They say imitation is the greatest form of flattery, but unfortunately you did not carry my ideas all the way in terms of the pay for.

You did pick up the idea, and I appreciate the President doing that. But depriving the Gulf states of revenue sharing from offshore production is just a nonstarter. It would up end a deal that 71 Senators supported and take money away from states that are counting on it to protect their coastlines. The effort to repeal revenue sharing is not going to go anywhere.

In terms of paying for this new fund, I have suggested that a much better option is to increase domestic energy production and

use those revenues to help communities in need. That would allow us to create jobs and reduce our foreign dependence instead of simply re-dividing the pie.

The Administration also claims that this budget, “invests in Alaska’s long-term economic and environmental well-being.” Again, I have looked through this budget proposal and what I see, unfortunately, is a continuation of the efforts that block our ability to safely develop our resources and really take away so many of the best opportunities that I think my state has to grow and prosper.

One of the areas I am going to be asking you about this morning, Madam Secretary, is the Alaska land conveyances. We are sitting here 57 years after statehood, 45 years after passage of the Alaska Native Claims Settlement Act, and we are still dealing with our land conveyances, as you well know. I think it is fair to note that BLM did make some progress in 2015, but what we are seeing within this proposal is more than a 20 percent decrease from last year’s levels.

We still have about 5.3 million acres left to convey. In our questioning we will have an opportunity to talk about how the methodologies are being used to provide for the surveys. This has been something that has, again, lingered so long. When you think about any state’s ability to develop their lands, you cannot do it unless you have had that title conveyed.

Other areas that we look at as being restrictive in terms of the Federal Government limiting opportunities for a state are the proposed regulations coming out of National Park Service and U.S. Fish and Wildlife, controversial within the state, certainly, but also nationwide. It just seems that the Department is intent on overriding state management authority over Fish and Game resources within their borders inconsistent with ANILCA. But again, we will have an opportunity to discuss that in Q and A.

But it is not just Alaska. On top of all the regulations and restrictions we have seen, this budget would repeal a number of tax provisions that help maintain domestic energy production. It would impose an ambiguous new \$10.25 per barrel tax on oil that will hurt families and businesses.

We were out in Bethel just last week with five members of this Committee and myself. If you were to ask the people in Bethel if they think that it is a smart thing to do anything that would increase the price of oil to them, they are paying about \$5.65, so they are having a tough time reconciling how this could possibly be a good thing.

The budget also seeks to impose new fees on energy producers and a new royalty on hard rock miners. At a time when energy and commodity prices are low, I would expect that Interior would be looking for practical ways to make our energy and mining industries more competitive. Based on this budget it looks like the goal is to drive them away from our Federal lands and waters.

With regards to the miners out in the Fortymile District, you ask them if these RMPs that they are looking at make it any easier for them to basically pursue what they have spent a lifetime trying to pursue as small, small operators out there. It is very tough to make that argument.

Then at a time when we are recognizing that when we talk about energy insecurity, that also includes the insecurity that comes when we rely on others for our sources of minerals. When we look at new fees and new taxes on top of already slow permitting within the industry, it does make me question how does this help us when it comes to mineral security which, in turn, leads to economic security and national security?

Legacy wells. This is an issue that you and I have discussed at great length over the years. We have suggested that it is the height of double standards that the Government would be allowed to basically take a pass in terms of clean-up when the private sector would be sued until the sun sets if they had done the same thing that the Federal Government has done. It is an ongoing environmental insult that the Government should never tolerate. I think we recognize the budget here is far short of what is needed where at \$2.8 million, if I understand what it is costing us on a per well basis, it is pretty much close to \$3 million a well because we have gotten beyond the easy ones, if you will.

There has been a lot of news just this past week back home about the \$50 million that I was able to secure through the Helium Stewardship Act which BLM is now using to clean up about 40 percent of the legacy wells which, I think you and I would agree, gets us on that track. But making sure that we are on a path after that is, I think, critically important, particularly recognizing that we are looking at perhaps 29 more wells to be cleaned up. If you estimate maybe \$2 to \$3 million per well, do the math and we are going to be sitting here for a long time cleaning this up.

Of course beyond energy there is King Cove. It was 26 months ago today, today, that you rejected the lifesaving road for this remote community. At that time you promised that you were going to find some way to help the local residents, but I do not see anything in this request to protect those people whose lives remain in needless danger.

More broadly, the Administration continues to ignore budget realities and propose billions in mandatory spending including for proposals that have been rejected in the past for very valid reasons.

We have had a lot of consensus in this Committee about support for the Land and Water Conservation Fund (LWCF). We have actually moved through this measure as part of our energy bill, a provision that would address some reforms. But you are advancing full funding for LWCF without any offset and without reforms.

Yet again, we will have an opportunity to speak more to this in question and answer. But when we recognize the substantial backlog that we have within the Federal agencies, the National Park Service at close to \$12 billion backlog, it kind of begs the question, why are we pushing to acquire more land when it is obvious that we have a great need, a great demand, to care for the lands that we have.

Now having said all that, I think that there are some important issues where I hope that we would be able to forge this common ground despite the budget proposals that we have here.

We talk a lot about wildfire and the problem that we face in terms of budgeting and actual forest management. I noted that in the news yesterday in Alaska, we have our first wildfire out in the

BLM area, outside of Delta, that has been contained. But it is a reminder that the season is coming a lot earlier. We just do not have the snow cover that we would hope up there. Our Committee is going to dedicate much of March to finding a solution to the challenges of budgeting and forest management.

A second area where, I think, collaboration is possible is the National Park Service Centennial. I know that this is a priority of yours. I have said the Administration's proposal is unrealistic at \$1.5 billion in mandatory spending, but I do think this is an opportunity for us to put the Park Service on a long-term path toward viability with its 100th birthday here. This is an opportunity for us to figure out how we can work through the maintenance backlog so that we have a park system that we can all be proud of. That would be a legacy for us all.

With that, Madam Secretary, again, thank you for being here before us this morning. We look forward to your comments and that of your colleagues as well.

Senator Cantwell?

STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Madam Chair. Thank you, Senator Murkowski, for scheduling this hearing. It is good to be here to discuss the President's budget proposal for the Department of the Interior. I welcome all the witnesses here this morning. Certainly welcome to Secretary Jewell. This will be your final budget presentation before the Committee, so thank you for your work on this.

Many of the priorities in this budget, such as the full funding of the Land and Water Conservation Fund and the development of funding for the National Park Centennial initiative, reflect tireless efforts by those in the agency to work on these issues. One of the signature issues here involves finding new ways to get young people to the outdoors and experience and enjoy our national parks and public lands.

This budget includes funding for the Secretary's Every Kid in a Park initiative, which provides a free one-year admission pass for every fourth grader in the country to visit our national parks and other public lands. So thank you, Secretary Jewell, for your leadership on that initiative. It is greatly appreciated. I commend you for that and look forward to discussing many of these proposals.

The proposed budget of \$13.4 billion for the Department of the Interior reflects a very modest increase totaling half of one percent over current level funding. In my view this is a very responsible proposal that balances the funding for the Department of the Interior's often conflicting conservation and development mandates. More importantly, I'm pleased that the budget and the recent secretarial directives are taking a long term and forward looking approach to responsible energy development on public lands to address the impacts of climate change into the future.

At the budget hearing last year I expressed my concern that the Department's efforts to reform the coal program were not going far enough and fast enough. What a difference a year makes. I want to thank Secretary Jewell for her bold action to modernize the Fed-

eral coal program. She has been a deliberate and thoughtful person when it comes to this issue. Thank you for the open and honest conversation.

What we have now is the Bureau of Land Management's proposed rulemaking. The Bureau of Land Management held five listening sessions on this last August. The Secretarial Order that Secretary Jewell issued this January requires the Bureau of Land Management to undertake a programmatic EIS, or I should say programmatic environmental impact statement, to update the coal leasing program and ensure that taxpayers get a fair return. While the programmatic EIS is being prepared, no new Federal coal leasing will be issued, with limited exceptions. This programmatic EIS is long overdue. It has been 37 years since the current EIS was written. I think 37 years is long enough, so I'm thankful that this process is underway.

This pause on new leasing activities is consistent with the actions of five previous administrations, four Republican and one Democrat, as well as a leasing moratorium approved by the Republican-controlled Senate in the 80s. So we cannot continue with business as usual. The cost to the taxpayers and the public do not match. We cannot continue to lease coal for \$1.00 a ton and collect another \$1.00 in royalties while the cost to society is about \$70 per ton. That enormous gap between public revenue and ultimate cost to the public is simply not defensible.

There is much more to do in reforming coal leasing. So I plan to ask you about this, finishing the Stream Protection Rule and fixing reclamation self-bonding requirements, which are hugely important to addressing the legacy and impacts of coal to society. I want to thank you for taking action on these.

The past year has also been a busy one for the Land and Water Conservation Fund. Working with Senator Murkowski and other members of this Committee we were able to pass out of Committee bipartisan Land and Water Conservation Fund legislation and make it permanent and dedicated to address the National Park Service maintenance needs. So this legislation, which is still in the energy bill that we are trying to move forward on, is a critical agreement. Hopefully we will be able to get this ultimately enacted.

The Omnibus Appropriations bill that was passed last December extended Land and Water Conservation Fund authority for three years and increased the funding by almost 50 percent to \$450 million. While this is certainly a step in the right direction and was a hard fought achievement, I want to make sure that we continue to get permanent reauthorization of LWCF and full dedicated funding.

I strongly support the President's budget proposal to fully fund the Land and Water Conservation Fund at its authorized level of \$900 million. The President's Administration proposal to transition to a mandatory funding stream for the program in future years is also something I fully support.

I would like to mention a couple of other issues.

In addition to conservation proposals, I am pleased to see that the President's budget is focused on science and landscape and watershed management. I am particularly pleased to see the proposals throughout the budget to foster climate change resilience in

these areas, and I believe we must invest in science and smart solutions.

In this vein I am particularly pleased to see the Administration's continued commitment to the Yakima Basin project. This \$3 million increase in the proposed budget for the Yakima Basin is critical to completing fish passage and continuing to provide the stewardship that's needed. This project will restore fish runs that have been blocked for more than a century and one of what is the largest sockeye salmon runs in the lower 48.

Secretary Jewell, as a fellow Washingtonian, I know you understand the importance of salmon issues to the entire economy. I want to thank the Bureau of Reclamation for being such great partners on a plan that, I think, is a model for the rest of the nation in watershed management.

I will save the rest of the comments for the record on the Yakima Basin project but turn to the National Park Service Centennial. It is our 100th anniversary since the founding of the National Park Service. Along those lines, I want to say that I support our efforts to get legislation in and was happy to introduce the initiative by the Administration.

But having said that, we need to work together, Senators Murkowski and Portman and others, on a National Park Service bipartisan effort to help make sure that the National Park is well positioned for its next 100 years. I know this is a big challenge here in supporting new dollars and coming up with how we upgrade our park system, but I am sure that if there's anyone here that can meet that task it is Secretary Jewell because of her great love of the National Park system, her great utilization of it, and her great promotion of it.

I hope that a number of the issues that have been detailed by both Chairman Murkowski and myself, as we talk about this proposal, actually come to fruition with some legislation that we can get passed because clearly the next 100 years of our parks deserves the investment that was made at the first 100 years.

With that, Madam Chair, thank you for holding this important hearing.

The CHAIRMAN. Thank you.

With that we will turn to Secretary Jewell. Welcome before the Committee.

STATEMENT OF HON. SALLY JEWELL, SECRETARY, U.S. DEPARTMENT OF THE INTERIOR; ACCOMPANIED BY THE HONORABLE MICHAEL CONNOR, DEPUTY SECRETARY, U.S. DEPARTMENT OF THE INTERIOR, AND KRISTEN SARRI, PRINCIPAL DEPUTY SECRETARY OF POLICY, MANAGEMENT AND BUDGET, U.S. DEPARTMENT OF THE INTERIOR

Secretary JEWELL. Thank you very much, Chairman Murkowski, Senator Cantwell and members of the Committee. I appreciate the opportunity to discuss the Department's Fiscal Year '17 budget request.

I'd like to take a moment to mention the incident at the Malheur National Wildlife Refuge in Harney County, Oregon. Through tremendous patience and professionalism, the FBI with support from state and local law enforcement ended the occupation on February

11th as quickly and safely as possible, after more than 40 days. It was an incredibly disruptive and distressing time for our employees, their families and the Harney County community.

I'm proud of our DOI law enforcement personnel who supported the response and helped keep our employees safe. We continue to cooperate with the Department of Justice, the FBI and others as the investigations move forward, and we remain committed to working with local communities on the management of public lands.

Interior's Fiscal '17 budget request is \$13.4 billion, half a billion above the 2016, excuse me, half a percent above the 2016 enacted level. It builds on the successes we're achieving through partnerships, the application of science and innovation and balanced stewardship. It gives us the tools to help communities strengthen resilience in the face of climate change, conserve natural and cultural resources, secure clean and sustainable water, engage the next generation with the great outdoors, promote a balanced approach to safe and responsible energy development and expand opportunities for Native American communities. These areas are core to our mission and play a vital role in job creation and economic growth.

The budget invests in our public lands providing \$5 billion to support operations at our National Parks, historic and cultural sites, wildlife refuges and habitats and managing multiple use and sustained yield on our nation's public lands.

It focuses investments on important working landscapes like the Western Sage Steppe and the Arctic and proposes a ten-year, \$2 billion coastal climate resilience program to support at risk coastal states and local governments, including funding for communities in Alaska, to prepare for and adapt to climate change.

As the National Park Service begins its second century, the budget provides \$3 billion and includes a proposal that dedicates significant funding to reduce the deferred maintenance backlog.

It calls for full and permanent funding of the Land and Water Conservation Fund and extends the expired authority for the Historic Preservation Fund.

It reflects the Administration's strategy to more effectively budget for catastrophic fires. And I'd like to thank you for your leadership on this and look forward to working with you, particularly, next month.

And in response to drought challenges across the West, it continues to safeguard sustainable and secure water supplies.

We continue to engage the next generation of Americans to play, learn, serve and work outdoors with \$103 million for youth engagement. This includes mentoring and research opportunities at the USGS, urban community partnerships, scholarships and job corps training for tribal, rural and urban youth and work opportunities in our bureaus.

There's \$20 million for the Every Kid in a Park Initiative which introduces America's fourth graders to their public lands providing education programs across the country and transportation support for low income students.

We continue to promote a balanced approach to safe and responsible energy development that maximizes the fair return for tax-

payors with \$800 million for renewable and conventional energy development, a \$42 million increase.

We're on track to meet the President's goal of permitting 20,000 megawatts of renewable energy capacity on public lands by 2020 and nearly \$100 million for renewable energy development and infrastructure.

Offshore this budget supports the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement with funding to reform and strengthen responsiveness, oversight and safety for oil and gas development.

Onshore, \$20 million supports BLM's efforts to develop a landscape level approach to oil and gas development, modernize and streamline permitting and strengthen inspection capacity.

We're expanding educational job opportunities for Native communities with \$3 billion for Indian Affairs, a five-percent increase, to support Native youth education, American Indian and Alaska Native families, public safety and building resilience to climate change.

The President's budget calls for a \$1 billion investment in Indian education as part of Generation Indigenous and \$278 million to fully fund contract support costs, a cornerstone of tribal self-determination.

The budget supports our commitment to resolve Indian water rights settlements and support sustainable water management in Indian Country with \$215 million, a \$5 million increase.

The budget includes funding to strengthen cyber security controls across all agencies. It also invests in science and innovation with \$150 million for natural hazards in the USGS, an \$11 million increase, and a \$5 million increase for 3D elevation mapping in Alaska and nationwide.

Funding will continue development for Landsat 9, a critical new satellite, expected to launch in 2021.

This is a smart budget that builds on our previous successes and strengthens partnerships to ensure we balance the needs of today with opportunity for future generations. So thank you, Chairman and Senators, and I'm happy to answer any questions you may have.

[The prepared statement of Secretary Jewell follows:]

**STATEMENT OF SALLY JEWELL
SECRETARY OF THE INTERIOR
BEFORE THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
ON THE 2017 PRESIDENT'S BUDGET REQUEST**

Ms. Chairman, Ranking Member Cantwell, and members of the Committee, I am pleased to present the 2017 President's Budget for the Department of the Interior providing \$13.4 billion for the Department's programs with \$290 million available in the event of catastrophic fires.

This is a strong budget that builds on our accomplishments. Our request enables us to carry out our important missions – maintain our core capabilities, meet commitments, and invest in key priorities. The investments in this request show the Administration remains focused on meeting the Nation's greatest challenges looking forward and ensuring our economy works for all.

Our budget is part of the President's broader strategy to make critical investments in domestic and national security priorities while adhering to the bipartisan budget agreement signed into law last fall, and lifts sequestration in future years to continue investment in the future. This budget recognizes the importance of Interior's programs to the overall strength of the Nation's economy. To put this into perspective, in 2014, Interior-managed lands and activities contributed about \$360 billion in national economic output, supporting an estimated two million jobs. Of this, energy and mineral development on Interior-managed lands and offshore areas generated more than \$241 billion in economic activity and supported nearly 1.1 million jobs.

At the same time, our 2017 proposed investments lay the groundwork for promoting renewable energy development, managing the Nation's lands responsibly, helping to protect communities in the face of climate change, and investing in science to inform natural resource management. Our budget features investments to launch the second century of the national parks and expand public accessibility to and enjoyment of America's public lands. It supports tribal priorities in Indian Country, including a \$1.1 billion investment to transform Indian schools and education, and provides full funding for tribal contract support costs. This request addresses significant resource challenges for the Nation, including water availability, particularly in the arid West, and makes important investments in America's water infrastructure.

The 2017 budget includes \$1.0 billion for research and development activities throughout the Department, an increase of \$84.5 million from the 2016 enacted level. Activities supported include scientific analysis of natural systems and applied field research to address specific problems, such as thawing permafrost, invasive species, and flooding. With multiple science programs across the Department's bureaus and offices, science coordination remains a critical component in the process of effective science application. Interior is well served by the deployment of science advisors in each bureau. These advisors serve critical roles within the organizations and across the Department by sharing information concerning new research efforts, identifying and evaluating emerging science needs, and ensuring effective science delivery and application. The Interior 2017 budget reflects high priority needs identified for scientific research across the Department.

The 2017 Budget Advances a Record of Achievement

This budget builds on a record of achievement across Interior's diverse mission. For the past several years, the Department led an unprecedented proactive strategy to develop land use plans with Federal, State, and local partners to address the deteriorating health of America's sagebrush landscapes and the declining population of the greater sage-grouse. This landscape scale conservation effort is an extraordinary collaboration to significantly address threats to the greater sage-grouse across 90 percent of the species' breeding habitat. These efforts enabled the U.S. Fish and Wildlife Service to conclude the charismatic rangeland bird does not warrant protection under the Endangered Species Act. This collaborative, science-based strategy is the largest land conservation effort in U.S. history, and helps to protect the species and its habitat while also providing certainty needed for sustainable economic development across millions of acres of Federal and private lands throughout the western United States. The 2017 budget includes \$89.7 million for Sage Steppe conservation, an increase of \$22.9 million over 2016 enacted.

This budget continues to advance development of renewable energy. Over the summer of 2015, Interior's offshore wind energy leasing efforts led to beginning construction of the first offshore wind farm. This first of its kind project will provide a model for future development of offshore wind energy. Since 2009, Interior has approved 56 wind, solar, and geothermal utility scale projects on public or tribal lands. When built, these projects could provide about 14,600 megawatts - enough energy to power nearly 4.9 million homes and support more than 24,000 construction jobs. The 2017 budget includes \$97.3 million for clean energy programs, an increase of \$3.1 million over 2016 enacted.

The 2017 budget sustains President Obama's strong commitment to tribal self-determination, strengthening tribal nations, and investing in the future of Native youth. Interior established the Land Buy Back Program which, in only two years of active land purchases, invested more than \$730 million in Indian Country to restore nearly 1.5 million acres of land to Indian Tribes. The effort to improve and transform the Bureau of Indian Education to better serve American Indian and Alaska Native youth is building the foundation for improved student outcomes and enduring traditions and native cultures. In 2016, work will begin to replace the final two of 14 Bureau of Indian Education schools identified in 2004 as requiring the greatest need for replacement construction. Also, in 2016, Interior will finalize the next list of replacement schools determined through a negotiated rulemaking process. This budget includes \$138.3 million for education construction and maintains a commitment to continue to invest in improving educational opportunities and quality from the earliest years through college.

Interior continues to engage in innovative efforts to leverage youth engagement and partnerships to advance the Department's extraordinary mission. Interior set the goal to provide 40,000 work and training opportunities during 2014 and 2015 for young adults, toward a goal of 100,000 by 2017. Interior met its priority goal – providing 52,596 work and training opportunities over the past two fiscal years by collaborating across all levels of government and mobilizing the 21st Century Conservation Corps. From Denali to the Everglades, members of the youth conservation corps are gaining work experience, helping improve the visitor experience, and mobilizing entire communities in the stewardship of our parks, refuges, waters and heritage. The

2017 budget includes a total of \$101.5 million, an increase of \$36.6 million over 2016 enacted, for programs to advance youth engagement.

Bureau of Reclamation projects funded from 2010 through 2015 exceeded the cumulative water savings target of 910,000 acre-feet of water/year, achieving savings of over 970,000 acre-feet, roughly the amount of water needed for household use in Phoenix and the surrounding area each year. The budget keeps Reclamation on track to conserve 1,040,000 acre-feet by the end of Fiscal Year 2017.

Partnerships are critical to enhancing our public lands and providing additional recreational opportunities to the public. An example of the significant impact of these efforts is the CityArchRiver project is a public-private partnership building connections that enhance downtown St. Louis, the Gateway Arch grounds at the Jefferson National Expansion Memorial, and the Mississippi riverfront. This partnership includes the National Park Service, Missouri Department of Transportation, Great Rivers Greenway District, City of St. Louis, Bi-State Development Agency, CityArchRiver Foundation, and others. In January, the Foundation completed a \$250 million capital campaign which means the Foundation has raised \$221 million in private funding for construction of the \$380 million CityArchRiver project and an additional \$29 million to seed an endowment that will help maintain and operate the park moving forward.

Promotes the Conservation and Protection of America's Natural and Cultural Resources

This year, the National Park Service celebrates 100 years of preserving and sharing America's natural, cultural, and historic treasures. Interior's 2017 budget makes investments to connect a new generation to "America's Best Idea," and to care for and maintain our national parks for the next 100 years. Last year, the National Park Service's 410 units welcomed 307 million visitors – setting a new visitation record. Every tax dollar invested in a park returns more than \$10 to the U.S. economy.

The budget includes a discretionary increase of \$190.5 million to invest in the next century of the National Park Service. This includes a \$20.0 million increase for the *Every Kid in a Park* initiative, a \$20.0 million increase to the Centennial Challenge program providing a Federal match to leverage partner donations for projects and programs at national parks, and a \$150.5 million increase to address high priority deferred maintenance needs across the national park system.

This current funding is complemented by a legislative proposal to provide new mandatory funding. The National Park Service Centennial Act includes \$100.0 million a year, for three years, for Centennial Challenge projects to provide the Federal match in support of signature projects at park units; \$100.0 million a year for three years for the Public Lands Centennial Fund, a competitive opportunity for public lands agencies to support conservation and maintenance projects; and \$300.0 million a year, for three years, for Second Century Infrastructure Investment projects to make a meaningful and lasting impact on the NPS deferred maintenance backlog. The Act also provides authority to collect and retain additional camping or lodging fees and funds collected from purchases of the lifetime pass for citizens 62 years of age or older. Receipts for this Second Century Fund will be matched by donations to fund visitor enhancement projects.

Together, the discretionary and mandatory funding proposals will allow the National Park Service to make targeted, measurable upgrades over the next 10 years to all of its highest priority, non-transportation assets, restoring and maintaining them in good condition.

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. The National Park Service budget for 2017 includes \$20.0 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.

Investments in America's great outdoors create and sustain millions of jobs and spur billions of dollars in national economic activity through outdoor recreation and tourism. An estimated 423 million recreational visits to Interior lands contributed \$42 billion to the economy and supported about 375,000 jobs nationwide. The 2017 budget proposes full funding for Land and Water Conservation Fund (LWCF) programs at Interior and the Department of Agriculture. This innovative, highly successful program reinvests royalties from offshore oil and gas activities into public lands across the Nation. Starting in 2017, the budget will invest \$900.0 million annually into conservation and recreation projects, equal to the amount of receipts authorized for deposit into the LWCF each year, through a combination of \$475.0 million in current discretionary funding and \$425.0 million in mandatory funding. These investments will conserve public lands in or near national parks, refuges, forests and other public lands, and provide grants to States for close-to-home recreation and conservation projects on non-Federal lands.

The budget continues efforts to manage and promote the health and resilience of ecosystems on a landscape scale, including a continued focus in priority landscapes such as the California Bay-Delta, the Everglades, the Great Lakes, Chesapeake Bay, and the Gulf Coast. The request includes a total of \$79.2 million for Bureau of Land Management efforts, to protect and restore America's vast sage steppe landscape supporting abundant wildlife and significant economic activity, including recreation, ranching and energy development. This investment reflects Interior's continued support of the unprecedented Federal and State collaboration to conserve the imperiled sage steppe landscape in the face of threats from fire, invasive species, expanding development, and habitat fragmentation. The budget also invests \$160.6 million in landscape scale efforts to address the complex natural resource issues facing the Arctic.

Implements the President's Climate Action Plan

As manager of roughly 20 percent of the land area of the United States and a partner with tribal, Federal, State, local, and territorial government land managers, the Interior Department works to address the challenges of natural hazards brought on by a changing climate as an integral part of its mission. The budget includes funding to improve the resilience of communities and ecosystems to changing stressors, including flooding, severe storm events, and drought as part of

the Administration's effort to better understand and prepare for the impacts of a changing climate.

The budget proposes \$2.0 billion in mandatory funding for a new Coastal Climate Resilience program, to provide resources over 10 years for at-risk coastal states, local governments, and their communities to prepare for and adapt to climate change. This program would be paid for by redirecting roughly half of the savings that result from the repeal of offshore oil and gas revenue sharing payments that are set to be paid to only four states under current law. A portion of these program funds would be set aside to cover the unique impacts of climate change in Alaska where rising seas, coastal erosion, and storm surges are threatening Native Villages that must prepare for potential relocations.

Population growth near forests and rangelands and a changing climate are increasing wildfire risk and resulting costs. The budget calls for a new funding framework for wildland fire suppression, similar to how other natural disasters are addressed. The budget includes base level funding of 70 percent of the 10-year average for suppression costs and an additional \$290.0 million through a cap adjustment, available in the event of the most severe fire activity, which comprises only two percent of the fires but 30 percent of the costs. This framework allows for a balanced suppression and fuels management and restoration program, with flexibility to accommodate peak fire seasons, but not at the cost of other Interior and U.S. Department of Agriculture missions.

Healthy communities require secure, sustainable water supplies. This is particularly challenging with record drought conditions and increasing demand taxing watersheds throughout the country, especially in the arid West. To help increase the security and sustainability of Western watersheds, the budget continues investment in the Department's WaterSMART program to promote water reuse, recycling, and conservation, in partnership with States, Tribes, and other partners. Funding is also included for research, development, and challenge competitions to find longer term solutions through new water technologies. The budget invests in the Nation's water infrastructure to ensure millions of customers receive the water and power that are the foundation of a healthy economy.

Powers the Future Through Balanced Energy Development

To enhance national energy security and create jobs in new industries, the budget invests in renewable energy development programs to review and permit renewable energy projects on public lands and in offshore waters. Under the President's Climate Action Plan, these funds will allow Interior to continue progress toward its goal of increasing approved capacity authorized for renewable - solar, wind, geothermal, and hydropower - energy resources affecting Interior managed lands, while ensuring full environmental review, to at least 16,600 Megawatts (since the end of FY 2009). The budget includes an increase of \$2.0 million for the Office of Insular Affairs to provide assistance to implement energy projects identified by the territories in their comprehensive sustainable energy strategies.

To address the continuing legacy of abandoned mine lands on the health, safety, environment, and economic opportunity of communities, the budget proposes \$1.0 billion to States and Tribes

over five years from the unappropriated balance of the AML Trust Fund, administered by the Office of Surface Mining Reclamation and Enforcement. As part of the President's POWER+ Plan, the AML funding will be used to target the reclamation of mine land sites and associated polluted waters in a manner that promotes sustainable redevelopment in economically distressed coalfield communities. The budget includes legislative reforms to strengthen the health care and pension plans that provide for the health and retirement security of coal miners and their families.

The budget provides support for onshore energy permitting and oversight on Federal lands, with the Bureau of Land Management's discretionary and permanent oil and gas program receiving a 17 percent increase in funding compared to the 2016 enacted level. The funding increase will enhance BLM's capacity to oversee safe, environmentally-sound development and ensure a fair return to taxpayers, with increases targeted to improve leasing processes, implementation of new regulations and rules, and a modernized automated permitting process. The BLM's costs would be partially offset through new inspection fees totaling \$48 million in 2017, requiring the onshore oil and gas industry to share in the cost of managing the program from which it benefits, just as the offshore industry currently does.

The budget also supports reforms to strengthen oversight of offshore industry operations following the 2010 Deepwater Horizon oil spill, with an additional emphasis on risk management. The budget includes \$175.1 million for the Bureau of Ocean Energy Management and \$204.9 million for the Bureau of Safety and Environmental Enforcement, which share responsibility for overseeing development of oil and gas resources on the Outer Continental Shelf.

Strengthening Tribal Nations

The President's budget maintains the Administration's strong support for the principle of tribal self-determination and strengthening tribal communities across Indian Country. This commitment is reflected in a nearly five percent increase for the Bureau of Indian Affairs over the 2016 enacted level. The budget calls for full funding for contract support costs that Tribes incur from managing Federal programs, complemented by a proposal to secure mandatory funding in future years. The budget provides significant increases across a wide range of Federal programs that serve Tribes; proposes a "one-stop" approach to improve and coordinate access to Federal programs and resources; seeks to improve the quality of data by partnering with the Census Bureau; supports sustainable stewardship of land, water, and other natural resources; provides funds for communities to plan, prepare, and respond to the impacts of climate change; and expands resources to promote tribally based solutions and capacity building to strengthen tribal communities as a whole. The budget continues to address Indian water rights settlement commitments and programs to support Tribes in resolving water rights claims, developing water sharing agreements, and supporting sustainable water management.

The budget includes key investments to support Generation Indigenous, an initiative addressing barriers to success for American Indian and Alaska Native children and teenagers. In addition to Interior, multiple agencies – including the Departments of Education, Housing and Urban Development, Health and Human Services, Agriculture, and Justice– are working collaboratively

with Tribes on new and increased investments to implement education reforms and address issues facing Native youth. The budget provides over \$1 billion for Interior investments in Indian education.

Improves Oversight and Use of Federal Dollars

Interior has several multi-year efforts underway to reduce its nationwide facilities footprint, and improve the efficiency and effectiveness of its information technology infrastructure and financial reporting capabilities. The budget includes \$6.4 million to consolidate building space and reduce costs to the taxpayer for privately leased space. Interior achieved a 4.6 percent reduction –2.1 million square feet– in office and warehouse space between FY 2012 and FY 2015. This represents a net annual cost avoidance of approximately \$8 million. In 2016, the modernization of the sixth and final wing of the Main Interior Building will be completed, including infrastructure upgrades that improve energy efficiency and sustainability and reconfigured space to support higher occupancy.

The budget includes \$3.0 million for Interior’s Digital Services team to increase the efficiency and effectiveness of the agency’s highest impact digital services. The budget continues to optimize the Department wide Financial and Business Management System with targeted investments to improve reporting and increase data quality and transparency, as envisioned in the DATA Act.

The budget includes an increase of \$2.6 million to support implementation of Federal Information Technology Acquisition Reform Act, to improve standardization of information technology investments by strengthening the role of the Department’s Chief Information Officer in strategic planning, budget formulation and execution, and acquisition of information management and technology activities. The budget includes \$34.7 million in the appropriated working capital fund to continue the Department’s remediation of its cybersecurity systems and processes, an increase of \$24.7 million above the 2016 enacted level. The additional funding will allow the Department to secure its valuable information on behalf of our employees, customers, partners and the American public.

The United States Treasury received \$7.2 billion in 2015 from fees, royalties and other payments related to oil and gas development on public lands and waters. A number of studies by the Government Accountability Office and Interior’s Office of Inspector General found taxpayers could earn a better return through policy changes and more rigorous oversight. The budget proposes a package of legislative reforms to bolster administrative actions focused on advancing royalty reforms, encouraging diligent development of oil and gas leases, and improving revenue collection processes. The Administration is committed to ensuring American taxpayers receive a fair return from the sale of public resources and benefit from the development of energy resources owned by all Americans.

The budget includes legislative proposals related to Reforms of Hardrock Mining. To increase safety and minimize environmental impacts, the budget proposes a fee on hardrock mining, with receipts to be used by States, Tribes and Federal agencies to restore the most hazardous sites – similar to how coal Abandoned Mine Lands funds are used. In addition, to ensure taxpayers

receive a fair return from mineral development on public lands, the budget proposes a royalty on select hardrock minerals – such as silver, gold and copper – and terminating unwarranted payments to coal producing States and Tribes that no longer need funds to clean up abandoned coal mines.

Bureau Highlights

Bureau of Land Management – The 2017 request is \$1.3 billion, \$7.1 million above 2016. This includes \$1.2 billion for BLM operations, an increase of \$2.1 million above the 2016 enacted level, with \$1.1 billion for Management of Lands and Resources and \$107.0 million for Oregon and California Grant Lands programs. The change in total program resources from 2016 and 2017 is larger, as the budget proposes offsetting user fees in the Rangeland Management and Oil and Gas Management programs which reduce the total request by \$64.5 million.

The budget also includes \$44.0 million in current appropriations for LWCF land acquisition, including \$8.0 million to improve access to public lands for hunting, fishing, and other recreation. BLM's LWCF land acquisition investments promote the conservation of natural landscapes and resources by consolidating public lands through purchase, exchange and donation to increase management efficiency and preserve areas of natural, cultural, and recreational importance. The BLM estimates 23 million acres (or nine percent) of BLM-managed public lands lack public access or have inadequate public access, primarily due to checkerboard land ownership patterns. The BLM's proposed land acquisition project within the Rio Grande del Norte National Monument in New Mexico illustrates the many benefits of land acquisition to BLM's mission. An investment of \$1.3 million would allow BLM to acquire 1,186 acres of private inholdings within the monument to preserve traditional uses, secure connectivity to the Rio Grande Wild & Scenic Corridor, preserve avian and wildlife habitat, protect prehistoric human habitation sites, and improve recreation and tourism.

Complementing the second century of the parks, the BLM budget includes investments in the National Conservation Lands, which recently celebrated their 15th anniversary. Thirteen new National Conservation Lands units were designated during the current Administration and visitation and visitor expectations and demands have consistently increased for the whole National Conservation Lands system during this period. The 2017 budget features a \$13.7 million increase to meet basic operating requirements and support critical and overdue investments to effectively safeguard the cultural, ecological, and scientific values for which they were designated and provide the quality of recreational opportunities intended with the National Conservation Lands designation. A program increase of \$1.1 million in Cultural Resources Management will enhance BLM's capacity to preserve and protect the vast treasure of heritage resources on public lands and a program increase of \$2.0 million in Recreation Resources Management will further implement a National Recreation Strategy to facilitate access to public lands.

The BLM continues to support the President's broad energy strategy, with significant increases requested in 2017 to strengthen its ability to effectively manage onshore oil and gas development on Federal lands. The 2017 budget for oil and gas management activities, including the request

for direct and fee funded appropriations and estimated permanent appropriations totals \$186.6 million, an increase of \$27.6 million in total program resources over the 2016 enacted level.

For direct appropriations, the oil and gas request is a net program increase of \$19.9 million. Within this net total, \$13.1 million will support implementation of rules and regulations to ensure oil and gas operations are safe, environmentally responsible, and ensure a fair return to the taxpayer. These include new oil and gas measurement and site security regulations, hydraulic fracturing regulations, and venting and flaring regulations. A \$2.1 million increase will complete modernization of the Automated Fluid Minerals Support System. The development work associated with Phase II of AFMSS modernization includes new functionality supporting new proposed rules and those currently expected to be finalized in 2016. Overall, the AFMSS modernization project also will support greater efficiencies in oil and gas permitting and inspection activities.

The Oil and Gas Management request also includes a program increase of \$2.6 million for oil and gas special pay costs to improve BLM's ability to recruit and retain high caliber oil and gas program staff to provide effective oversight and meet workload and industry demand. Finally, the BLM budget request includes a program increase of \$2.8 million to enhance BLM's capability to address high priority legacy wells in the National Petroleum Reserve- Alaska to supplement permanent funds provided in the Helium Security Act of 2013. The 2017 budget continues to request authority to charge inspection fees similar to those in place for offshore oil and gas inspections. Such authority will reduce the net costs to taxpayers of operating BLM's oil and gas program and allow BLM to be more responsive to industry demand and increased inspection workload in the future. A \$48.0 million decrease in requested appropriations reflects shifting the cost of inspection activities to fees.

In 2017, BLM will continue to invest heavily in the Greater Sage Grouse Conservation Strategy and the budget includes a program increase of \$14.2 million to protect, improve, or restore sage steppe habitat. Funds will also assist States in implementing GSG conservation plans. The BLM's efforts to implement the Greater Sage Grouse Conservation Strategy are also reliant upon successful execution of the National Seed Strategy, which is also integral to the Administration's wildland fire rehabilitation efforts and the success of the Secretary's Integrated Rangeland Fire Management Strategy. The budget includes a \$5.0 million program increase within Wildlife Management to more aggressively implement the National Seed Strategy.

Other budget highlights include program increases totaling \$16.9 million in the Resource Management Planning, Assessment, and Monitoring subactivity. This includes \$4.3 million to expand the BLM Assessment, Inventory, and Monitoring program for increased data collection and monitoring central to the success of high priority landscape management efforts such as the Western Solar Energy Plan, as well as implementation of the Department's plan for the National Petroleum Reserve - Alaska, the Greater Sage Grouse Conservation Strategy, and the broader landscape mitigation strategy. The request also includes an increase of \$6.9 million to accelerate implementation of the BLM enterprise geographic information system, which aggregates data across boundaries to capture ecological conditions and trends; natural and human influences; and opportunities for resource conservation, restoration, development, and partnering. The remaining \$5.7 million increase will support high priority planning efforts that could include the

initiation of new plan revisions in 2017, as well as plan evaluations and implementation strategies.

Bureau of Ocean Energy Management – The 2017 President’s budget for BOEM is \$175.1 million, including \$80.2 million in current appropriations and \$94.9 million in offsetting collections. This is a net increase of \$4.3 million in current appropriations above the 2016 enacted level.

The total 2017 estimate of \$94.9 million for offsetting collections is a net decrease of \$4.5 million, including reductions in rental receipts partially offset by a new \$2.9 million cost recovery fee for the Risk Management Program. An increase in direct appropriations of \$6.0 million makes up for the projected decrease in rental receipts.

The budget provides \$23.9 million for offshore renewable energy activities. To date, BOEM has issued eleven commercial wind energy leases offshore; conducted five competitive wind energy lease sales for areas offshore Maryland, Massachusetts, New Jersey, Rhode Island, and Virginia; and approved the Construction and Operations Plan for the Cape Wind project offshore Massachusetts. Additionally, BOEM is in the planning stages for wind leasing offshore New York, North Carolina, and South Carolina. In 2015, BOEM executed the first wind energy research lease in U.S. Federal waters with the Commonwealth of Virginia’s Department of Mines, Minerals, and Energy.

The 2017 budget provides \$64.2 million for conventional energy development, a programmatic increase of \$4.2 million above 2016. These funds support high priority offshore oil and gas development activities, including lease sales outlined in BOEM’s Five Year OCS Oil and Gas Leasing Program for 2012-2017. Under this program, BOEM’s eight sales generated over \$2.97 billion in high bids. Five lease sales remain on the lease sale schedule through mid-2017. The next lease sales are Eastern Gulf of Mexico Lease Sale 226, Central Gulf of Mexico Lease Sale 241, and Western Gulf of Mexico Lease Sale 248, all scheduled to be held during 2016.

The 2017 provides \$68.4 million for BOEM’s Environmental Programs. These funds support world class scientific research to provide critical information informing policy decisions regarding energy and mineral development on the OCS.

Bureau of Safety and Environmental Enforcement – The 2017 President’s budget for the Bureau of Safety and Environmental Enforcement is \$204.9 million, including \$96.3 million in current appropriations and \$108.5 million in offsetting collections. The 2017 budget is a net \$196,000 increase above the 2016 enacted level, reflecting an increase of \$7.9 million in current appropriations and a \$7.7 million decrease in offsetting collections. The total 2017 estimate of \$108.5 million in offsetting collections assumes decreases from 2016 of \$11.5 million for rental receipts, \$2.2 million for cost recoveries, and a \$6.0 million increase for inspection fee collections. Funding for Oil Spill Research is maintained at the 2016 enacted level of \$14.9 million. The 2017 budget supports continued safe and responsible offshore energy development.

Office of Surface Mining Reclamation and Enforcement – The 2017 budget request is \$157.9 million, \$82.6 million below the 2016 enacted level.

The 2017 budget for Regulation and Technology is \$127.6 million, \$4.3 million above 2016. The request includes \$10.5 million, \$1.8 million above 2016, to improve implementation of existing laws and support State and tribal programs. The 2017 budget includes \$65.5 million for State and Tribal regulatory grants, this level of funding supports State requirements.

The budget includes program increases of \$2.5 million to advance the Bureau's GeoMine Project; \$1.2 million for applied science to conduct studies to advance technologies and practices specific to coal mined sites for more comprehensive ecosystem restoration; \$1.0 million to expand the use of reforestation techniques in coal mine reclamation and provide opportunities for youth and community engagement; \$2.3 million to support Technical Assistance; and \$1.6 million for National Environment Policy Act compliance document preparation, legal review, and program monitoring.

The 2017 budget for the Abandoned Mine Reclamation Fund is \$30.4 million, \$86.9 million below 2016. The 2016 enacted level included a \$90.0 million increase for grants to three States for the reclamation of abandoned mine lands in conjunction with economic and community development activities. The 2017 budget proposes a broader legislative effort to support reclamation and economic and community development as part of the Administration's POWER+ Plan. POWER+ would provide \$200 million per year 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. The budget includes a \$1.5 million program increase for technical assistance to States, Tribes, and communities to address AML technological advances and issues for AML site reclamation. The budget also includes program increases of \$525,000 for applied science studies pertaining to abandoned mines, \$799,000 to enhance and expedite current OSMRE efforts in digitizing underground mine maps, and \$287,000 for support within the Office of the Solicitor.

Bureau of Reclamation and Central Utah Project Completion Act – The 2017 budget for Reclamation and CUPCA totals \$1.1 billion and focuses on investments in Indian water rights settlements, ecosystem restoration, healthy watersheds and sustainable, secure water supplies.

Funding for Water and Related Resources shows a reduction of \$305.6 million from 2016, reflecting the shift of \$106.2 million to the requested new Indian Water Rights Settlements account and \$36.0 million for a separate discretionary account within the San Joaquin River Restoration Fund.

Reclamation requests establishment of an Indian Water Rights Settlements account in 2017 to assure continuity in the construction of the authorized projects and to highlight and enhance transparency in handling these funds. The budget includes \$12.8 million to implement the Crow Tribe Rights Settlement Act, \$6.4 million for the Aamodt Litigation Settlement Act, and \$87.0 million for the Navajo-Gallup Water Supply Project

The extreme and prolonged drought facing the western States affects major U.S. river basins in virtually every western State. The effects of the current drought on California water, its agrarian economy, and its communities are particularly acute. The estimated cost of the 2015 drought on California agriculture-crop production, livestock, and dairies is \$2.7 billion with a total loss of

21,000 seasonal and part-time jobs. The Colorado River Basin—crucial for seven States and several Tribes, in addition to two countries—is also enduring historic drought. Nearly 40 million people rely on the Colorado River and its tributaries for some, if not all, of their municipal needs. The Basin is experiencing the worst drought in recorded history; the period of 2000-2015 was the driest 16-year period in more than 100 years of record keeping.

Reclamation's WaterSMART program, requested at \$61.5 million, is helping to address the drought and other water supply issues across the West. WaterSMART Grants, Water Conservation Field Services, and Title XVI Programs, along with other Reclamation activities are enabling the West to better adapt to the impacts of a changing environment by helping to conserve tens of thousands of acre-feet of water each year in urban and rural settings, and on both large and small scales. The Drought Response Program will implement a comprehensive new approach to drought planning and will implement actions to help communities manage drought and develop long-term resilience strategies. Reclamation continues to promote research and development through its Science and Technology and Desalination and Water Purification Research Programs to produce new clean water technologies, reduce costs, and decrease environmental impacts while converting unusable water into viable water supplies. The 2017 budget includes \$8.5 million for an X-Prize competition to encourage innovative water purification and treatment technologies.

Separately, the budget includes \$5.6 million for the Central Utah Project Completion Account program, \$4.4 million below 2016. The request provides funding to complete construction of the North Pipeline component of the Utah Lake System; provides for recovery of endangered species; and implements fish, wildlife, and recreation mitigation and water conservation projects.

U.S. Geological Survey – The 2017 budget is \$1.2 billion, \$106.8 million above 2016, to advance our national commitment to research and development that supports economic growth, balances priorities on resource use, addresses climate change, and ensures the security and well-being of the Nation. The budget improves response to and warning of natural disasters, responds to drought and other water challenges, supports sustainable domestic energy and minerals development, and advances scientific understanding of land use, land change, and the effects of resource decisions to assist communities and land managers in making choices informed by sound science.

The 2017 budget invests in the USGS's capabilities for science and innovation to monitor and respond to natural disasters with increases for priority science to help stabilize and rehabilitate ecosystems after fires and provide geospatial information, monitoring strategies, and other relevant scientific information faster for real-time fire response. Related increases build USGS' capability to respond to landslide crises, and expand the use of flood inundation mapping and rapidly deployable streamgages to meet urgent needs of flood-threatened communities lacking a permanent streamgage.

The budget continues \$8.2 million to develop the West Coast Earthquake Early Warning system to complete a production prototype system, expand coverage, and beta-test alerts. The budget continues funding of \$3.0 million to repair and upgrade monitoring stations on high-threat volcanoes. The budget includes funding to assume long-term operations of the Central and

Eastern United States Seismic Network from the National Science Foundation and allows USGS to continue a five-year effort to deploy, install and improve the Global Seismic Network, ensuring that the Network continues to provide global earthquake and tsunami monitoring, nuclear treaty research and verification, and earth science research.

The budget provides an increase of \$18.4 million for science to support sustainable water management, nearly doubling the investment made in 2016. As climate models forecast increasingly frequent and more intense droughts, improving water management science is a paramount concern for land and water management agencies, States, local governments, and Tribes. The budget would improve water use information and research, provide grants to State water resource agencies, and create hydrologic models and databases for better decision support. The budget also includes \$3.9 million for drought science and \$4.0 million to develop methods to assess regional and national water use trends during drought. Innovation is critical to address the severe threats to water supply posed by drought and climate change.

The budget provides increases across several programs to advance understanding of conventional and unconventional energy, critical minerals such as rare earth elements, and the environmental health effects of resource development. These investments include \$3.6 million to provide decision ready information to support safe and prudent unconventional oil and gas development, \$2.0 million to study the environmental impacts of uranium mining in the Grand Canyon, and \$1.0 million to identify and evaluate new sources of critical minerals and continue criticality analysis for mineral commodities.

The USGS budget increases science investments for changing landscapes, including \$9.8 million in the Arctic, \$3.0 million for the vulnerable sagebrush habitats of the Intermountain West, and \$3.9 to improve coastal science that will help communities build resilient coastal landscapes and improve post-storm contaminant monitoring network along the Atlantic coast. The budget also establishes a Great Lakes Climate Science Center to focus on the many natural resource challenges in the distinct bio-geographic Great Lakes region. As with the eight existing Climate Science Centers, the Great Lakes CSC will help address regional concerns associated with climate change, providing a pathway to resilience and supporting local community priorities.

The budget includes increases of \$2.1 million to address research on pollinator health and expand the small group of USGS researchers working on this critical component of agricultural and ecosystem health, \$1.4 million for tribal climate science partnerships, and \$2.5 million for better tools to detect and control invasive species, particularly new and emerging invasive species. The budget continues a commitment to priority ecosystems including the Chesapeake Bay, the Everglades, Puget Sound, the Upper Mississippi River, the California Bay-Delta, and the Gulf Coast.

The USGS plays a pivotal role in providing research, analysis, and decision support tools. The budget supports these efforts and includes investments to extend the four-decade long Landsat satellite program with the development of Landsat 9, and provide information to better understand and respond to changes in the environment. The 2017 budget provides an increase of \$17.6 million for satellite operations, funding the development of Landsat 9 ground systems and satellite operations and an investment to retrieve and disseminate data from the European Space

Agency's Sentinel-2 earth observation satellite. The budget provides an increase of \$4.9 million to expand the three-dimensional elevation program and leverage partnerships across the Nation, accelerate Alaskan map modernization, and provide coastal imaging to help communities make infrastructure resilience investments. The budget also provides \$3.0 million to develop the computing resources necessary to produce and disseminate Landsat-based information products.

High-quality science depends on a strong science infrastructure. The budget makes necessary investments to continue the USGS legacy of reliable, valuable scientific information and monitoring. These investments fund science support, facilities and equipment, including laboratories, and the administrative support that is the backbone of science production and delivery. The 2017 budget also includes program increases to enhance the Mendenhall post-doctoral program, support tribal science coordination, enhance science education, and engage youth in underserved communities in earth and biological sciences through outreach activities and science camps.

Fish and Wildlife Service – The 2017 budget for FWS includes current appropriations of \$1.6 billion, an increase of \$54.5 million compared to the 2016 enacted level.

The 2017 request for FWS includes \$1.3 billion for FWS operations, of which \$506.6 million supports National Wildlife Refuge System operations and maintenance. A feature of the 2017 FWS budget is support to expand opportunities for all Americans to access public lands and experience the great outdoors, regardless of where they live. With 80 percent of the U.S. population currently residing in urban communities near more than 260 wildlife refuges, Interior is leveraging the National Wildlife Refuge System to encourage urbanites to rediscover the outdoors. The request includes \$10.0 million for the Refuge System's Urban Wildlife Conservation Partnerships to expand opportunities for urban populations including an increase of \$2.0 million for additional Refuge System law enforcement officers to ensure the safety of visitors, natural and cultural resources, and Federal employees and facilities. The budget includes \$40.7 million for general Refuge Law Enforcement operations.

The request also includes funding within Law Enforcement and International Affairs to combat wildlife trafficking. The budget provides \$75.1 million for the law enforcement program to investigate wildlife crimes, enforce the laws governing the Nation's wildlife trade, and continue cooperative international efforts to prevent poaching and trade in illegal wildlife products. The request includes \$15.8 million for the International Affairs Program, an increase of \$1.1 million above 2016. This includes increases of \$500,000 to provide technical support for international efforts to reduce illegal wildlife trafficking and develop innovative conservation activities. Also within International Affairs, is \$550,000 to support the U.S. Chairmanship of the Arctic Council.

The budget invests in resources for the Refuge System which has lost more than 400 staff positions since 2010. The request for the Refuge System is \$506.6 million, an increase of \$25.2 million above 2016. This includes increases of \$1.0 million for pollinator conservation, \$3.7 million for wildlife and habitat inventory and monitoring, \$2.0 million to establish management capability across 418 million acres of submerged land and water within the Pacific Marine National Monuments, and \$4.4 million to begin rebuilding capacity within the Refuge System to

improve the condition of refuge system facilities and resources, improve the visitor experience and manage natural resources.

The budget emphasizes improving the resilience of communities and wild landscapes, enabling them to better adapt to a rapidly changing environment, and uses smart investments in conservation and landscape-level planning to improve the Service's ability to facilitate economic growth, while avoiding and mitigating the impacts on wildlife and habitat.

Within the FWS main operating account, the request provides \$252.3 million for Ecological Services to conserve, protect, and enhance listed and at-risk species and their habitat, an increase of \$18.3 million. Since 2008, FWS has downlisted or delisted 15 species, more than in any other Administration. The increases within Ecological Services include \$5.7 million to support conservation, restoration and economic development across the Gulf Coast region and other parts of the Country.

The budget includes \$152.8 million for Fish and Aquatic Conservation, a program increase of \$4.6 million. Within this request is \$53.8 million for operation of the National Fish Hatchery System and \$7.9 million to combat the spread of Asian carp in the Missouri, Ohio, upper Mississippi Rivers, and other high priority watersheds. The request also includes an increase of \$1.5 million to support fish passage while improving the resilience of communities to withstand flooding.

The budget funds Cooperative Landscape Conservation at \$17.8 million, an increase of \$4.8 million above 2016. The approach employed by Landscape Conservation Cooperatives to identify landscape scale conservation solutions fosters collaboration across a wide variety of partners and builds capabilities beyond the scale any single State, Tribe, Federal agency, or community could achieve alone. The requested increase will support landscape planning and design, and partner cooperation that will improve the condition of wildlife habitat and enhance the resilience of communities.

The 2017 budget for Science Support is \$20.6 million, an increase of \$3.6 million above 2016. The request includes an additional \$1.0 million to expand application of Strategic Habitat Conservation, an approach to conservation that, in cooperation with stakeholders, identifies priority species and habitat, desired biological outcomes, and develops conservation strategies to achieve these outcomes. This approach supports the design of successful management strategies that deliver measureable improvements to wildlife populations and habitats. The FWS will use a program increase of \$2.6 million to obtain high priority data and scientific tools needed by on-the-ground resource managers.

The FWS budget includes \$137.6 million for LWCF Federal land acquisition, composed of \$58.7 million in current funding and \$79.0 million in permanent funding. Within the request for current funding, is \$19.9 million for high priority acquisition projects focused on FWS specific needs, including \$16.0 million for collaborative projects in coordination with partners and other federal agencies, and \$2.5 million to support increased access to FWS lands for sportsmen and recreationists. The FWS requests \$2.5 million in discretionary funding for the Everglades Headwaters National Wildlife Refuge and Conservation Area, one of the great grassland and

savanna landscapes of eastern North America, to acquire nearly 1,000 acres to help protect high-quality habitat for 278 Federal and State listed species. Acquisition of this property would protect the headwaters, groundwater recharge, and watershed of the Kissimmee Chain of Lakes, Kissimmee River, and Lake Okeechobee region, and improve water quantity and quality in the Everglades watershed, supporting the Comprehensive Everglades Restoration Plan goals and protecting the water supply for millions of people.

Supporting the Administration's America's Great Outdoors initiative objectives is \$106.0 million for grant programs administered by FWS. The 2017 budget maintains 2016 funding levels for grants through the Cooperative Endangered Species Conservation Fund, North American Wetlands Conservation Fund, Multinational Species Conservation Fund, and the Neotropical Migratory Bird Conservation Fund. Funding for the State and Tribal Wildlife grant program on which many States and Tribes rely to fund non-game animal conservation, is an increase of \$6.4 million.

National Park Service – The 2017 President's current budget request for NPS of \$3.1 billion is \$250.2 million above the 2016 enacted level. Highlights of the 2017 budget include \$190.5 million in increases for the NPS Centennial, as well as a focus on the stewardship of natural and cultural resources, including a \$20.0 million increase for the Historic Preservation Fund grant programs to document and preserve stories and sites related to the Civil Rights Movement.

The NPS budget request for operations is \$2.5 billion, an increase of \$154.8 million from 2016. A \$2.2 million programmatic reduction to refocus operations funding partially offsets the following increases: \$49.2 million for additional repair and rehabilitation projects, \$46.6 million for additional cyclic maintenance projects, \$20.0 million for the Every Kid in a Park initiative, \$10.7 million for new parks and responsibilities, \$8.1 million for healthcare insurance for seasonal employees, \$3.0 million for climate change adaptation projects, \$2.6 million for increased communications bandwidth at parks, \$2.0 million for the Vanishing Treasures program, \$1.2 million to address energy development near parks, \$1.1 million for Arctic science and monitoring, and \$1.0 million for uranium mining studies in the Grand Canyon.

The 2017 budget provides a total of \$35.0 million for the Centennial Challenge matching program, an increase of \$20.0 million. These funds will provide a Federal match to leverage partner donations for signature projects and programs at national parks into the NPS' second century. All Federal funds must be matched on at least a 50:50 basis. In 2016, Congress appropriated \$15 million for projects which will be matched by almost \$33 million from more than 90 park partners. This program is bolstered by the Administration's legislative proposal to fund an additional \$100.0 million a year for three years for this program as a permanent appropriation.

The 2017 request for the Historic Preservation Fund is \$87.4 million, an increase of \$22.0 million from 2016. Of this total, \$46.9 million is requested for grants-in-aid to States and Territories, which is level with 2016. A total of \$12.0 million is requested for grants-in aid to Tribes, an increase of \$2.0 million. The remaining \$20.0 million increase is for grants to document and preserve the sites and stories of the Civil Rights Movement; of which \$17.0

million is for competitive grants, and \$3.0 million is for grants to Historically Black Colleges and Universities.

The 2017 budget includes \$54.4 million for National Recreation and Preservation programs that support local community efforts to preserve natural and cultural resources. This is a decrease of \$8.2 million compared to 2016. These changes consist of a program reduction of \$10.4 million to Heritage Partnership Programs; and programmatic increases of \$0.9 million for modernization and digitization in the National Register program, \$0.8 million for the Preservation Technology and Training grants program, \$0.3 million for the Federal Lands to Parks program, and fixed costs increases.

Construction funding totals \$252.0 million, \$59.1 million above 2016. This request provides funding critical to the implementation of the Centennial initiative to make a meaningful impact on the NPS deferred maintenance backlog. The budget includes \$153.3 million for line-item construction projects, a \$37.1 million increase, which will fund projects such as the \$13.2 million rehabilitation of the Paradise Inn Annex and snow bridge connection at Mount Rainier National Park in Washington, and \$13.9 million for the final phase of the rehabilitation of the El Portal sanitary sewer to prevent raw sewage spills at Yosemite National Park in California.

The 2017 current funding request for LWCF Land Acquisition and State Assistance is \$178.2 million, an increase of \$4.6 million from 2016. This includes \$110.0 million for State Assistance grants, maintaining the increase provided in 2016. The budget requests \$68.2 million for Federal Land Acquisition, an increase of \$4.6 million. This provides \$26.6 for projects addressing NPS specific needs, \$10.8 million for collaborative acquisition projects, \$2.0 million for projects to improve recreation access, and \$10.0 million for American Battlefield Protection Program acquisition grants. A high priority for NPS, the Hawaii Volcanoes National Park is also part of the Island Forests at Risk collaborative landscape proposal. An investment of \$6.0 million would allow NPS to begin acquisition of a parcel which protects the hawksbill and Green turtles, and island monk seal habitat, and contains anchialine pond communities and coastal strands of endangered plants. Significant archaeological sites, cultural landscapes, petroglyphs and ancient trails are also present. Time is a concern as the area faces potential rezoning from conservation to medium density urban and resort development.

Indian Affairs - The 2017 President's budget for Indian Affairs is \$2.9 billion in current appropriations, \$137.6 million above the 2016 level. Funding for the main operating account for Indian Affairs, Operation of Indian Programs is \$2.4 billion, \$127.9 million above 2016. The 2017 request for Construction is \$197.0 million, \$3.0 million above 2016.

The 2017 budget supports continuing efforts to advance self-governance and self-determination, improve educational outcomes for American Indian children, support human services activities, prudently manage tribal natural resources, build stronger economies and self-sufficiency, and maintain safer Indian communities.

Key to self-governance and self-determination is full funding for Contract Support Costs. The 2017 request includes \$278.0 million for Contract Support Costs, \$1.0 million above 2016, which will fully fund these costs based on the most recent analysis. As in the 2016 enacted bill,

the budget requests funding for Contract Support Costs in a separate dedicated current account. To further stabilize long-term funding, the 2017 budget includes a legislative proposal to reclassify these costs as permanent funding beginning in fiscal year 2018.

The Interior budget proposes a \$1.1 billion investment in Indian education and construction to continue to support the transformation of the BIE to support Tribes in educating their youth, and deliver an improved and culturally appropriate education across Indian Country. The budget includes \$49.3 million in increases across a number of programmatic areas in BIE related to the transformation.

The budget includes \$138.3 million for Education Construction, maintaining the \$63.7 million increase provided in 2016. The request will provide the funding stability necessary to develop an orderly education construction pipeline and properly pace projects. The 2016 enacted appropriation will replace two remaining BIE school campuses on the 2004 priority list—Little Singer Community School and Cove Day School, both in Arizona — and support planning for the schools identified on the new school replacement construction list nearing finalization. The 2017 funding will be applied to construction costs for projects chosen from the new list.

To further higher education, the budget includes increases of \$9.4 million for scholarships, adult education and tribal colleges and universities; and \$3.6 million for Johnson O'Malley education grants to provide additional resources to tribes and organizations to meet the unique and specialized educational needs of American Indian and Alaska Native students.

To foster public-private partnerships to improve the student experience at BIE-funded schools, the 2017 budget again proposes appropriations language enabling the Secretary to reactivate the National Foundation for American Indian Education. The proposed bill language will initiate a foundation focused on fundraising to create opportunities for Indian students in and out of the classroom.

As part of the President's commitment to protect and promote the development of prosperous tribal communities, Indian Affairs proposes to expand the Tiwahe "family" initiative. This effort takes an integrated approach to address the inter-related challenges impacting the lives of youth, families, and communities in Indian Country—including poverty, violence, and substance abuse. The Tiwahe approach seeks to empower individuals and families through health promotion, family stability, and strengthening communities as a whole.

The 2017 budget expands the Tiwahe initiative with increases totaling \$21.0 million for programs in social services, Indian Child Welfare Act, housing, tribal courts, and job placement and training. To better focus funding and evaluate outcomes in meeting social service needs in Indian Country, the Department will evaluate social service and community development needs in Indian Country in 2016. The evaluation will inform programmatic design, assessments, management, and budgeting.

The budget contains a number of increases to support tribal nation-building and economic development. The budget includes \$4.0 million for a Native One-Stop Support Center to make it easier for Tribes to find and access hundreds of services available to Tribes across the Federal

government. The 2017 budget includes \$1.0 million to help Tribes adopt uniform commercial codes which help build the legal infrastructure on reservations to promote credit and other capital transactions. The budget provides \$12.0 million to enable Interior to work with American Indian/Alaskan Native communities to improve Federal data quality and availability, to create a reimbursable agreement with the Census Bureau to address data gaps in Indian Country, and to create an Office of Indian Affairs Policy, Program Evaluation, and Data to support effective, data-driven, tribal policy making and program implementation. The budget also proposes \$1.3 million increase for the Small and Needy Tribes program to assist eligible Tribes in expanding and sustaining tribal governance.

The 2017 budget strongly supports sustainable stewardship of trust lands, natural resources, and the environment in Indian Country. These priorities include the protection and restoration of ecosystems and important landscapes; stewardship of land, water, ocean, and energy resources; resilience in the face of a changing climate; and clean and sustainable energy development.

The budget provides a \$15.1 million program increase over 2016 across eight natural resource programs to support Tribes in developing science, tools, training, planning, and implementation of actions to build resilience into resource management, infrastructure, and community development activities. Funding will be set-aside to support Alaska Native Villages in the Arctic and other critically vulnerable communities to evaluate options for the long-term resilience of their communities. The budget also includes \$2.0 million to address subsistence management in Alaska to better prepare for the impacts of climate change, as part of an ongoing commitment to improve the Nation's resilience. In addition, the budget includes a total increase of \$8.7 million for trust real estate service activities to reinforce the stewardship of trust resources. The expanded capacity will address the probate backlog, land title and records processing, geospatial support needs, and database management in addition to providing expanded technical and legal support for authorized settlements involving tribal water rights.

The 2017 budget request for Indian Land and Water Claim Settlements is \$55.2 million, a \$5.7 million increase over the 2016 enacted level for payments on enacted settlements. The budget includes \$25.0 million for the final payment to the Aamodt settlement and \$10.0 million in one-time funding to provide the Yurok Tribe, located in Northern California, funds to acquire lands as authorized in the Hoopa-Yurok Settlement Act. This acquisition supports efforts by the Yurok Tribe, State of California, private foundations and individual donors to conserve over 47,000 acres of the Klamath-Siskiyou ecoregion to ensure the long-term health of temperate forests, rare wildlife, and extraordinary runs of wild salmon. The land, to be conserved as a salmon sanctuary and sustainable community forest, will restore the Yurok Tribe's historic connection to the land, support the Yurok economy through jobs in forestry and restoration, and provide revenue to the Tribe through sustainable timber and salmon harvests and the sale of carbon credits. The budget also includes increases totaling \$12.9 million in the Operation of Indian Programs account to provide expanded technical and legal support for tribal water rights settlement negotiations and implementation. A reduction of \$29.2 million in the settlement account reflects completion of the Taos Pueblos water settlement in 2016.

The 2017 budget request for the Indian Guaranteed Loan Program is \$7.8 million, the same as 2016, which will provide loan guarantee and insurance authority for \$106.0 million in loan principal to support Indian economic development.

Departmental Offices – The 2017 budget request for Departmental Operations is \$278.4 million, a decrease of \$443.4 million below the 2016 enacted level. The decrease reflects a reduction of \$452.0 million associated with the Payments in Lieu of Taxes program. In 2017, the budget proposes to fund PILT as permanent funding not subject to appropriation. State and local governments depend on PILT funding to finance such vital services as firefighting and police protection, construction of public schools and roads, and search and rescue operations. Providing a mandatory source of funding will create greater certainty that PILT investments will be available in future years. The budget proposes mandatory PILT funding for one year, while a sustainable long-term funding solution is developed for the program.

The budget proposes program increases of \$1.5 million for work with the National Invasive Species Council to develop an Early Detection Rapid Response framework. Early detection and rapid response (EDRR) has the potential to result in significant cost savings, as compared to battling invasive species such as Asian carp, cheatgrass, and emerald ash borer once established. The EDRR request support multiple pilot projects to demonstrate early detection and rapid response approaches, as well as conducting assessments to identify current capacities and gaps in capacities to implement EDRR.

The budget includes \$1.0 million for Native Hawaiian community development through capacity building and technical assistance. This request will allow the Department to provide support to Native Hawaiians similar to the capacity building and technical assistance the Department provides to other Native Americans, and the Insular areas consistent with the Hawaiian Homes Commission Act and Hawaiian Homes Land Recovery Act. The Department will work with the Native Hawaiian community on a variety of economic, social, and cultural projects.

The 2017 Budget includes critical investments to ensure effectiveness and compliance of Interior information technology investments. The request includes \$3.0 million to develop a Digital Service Team responsible for driving the efficiency and effectiveness of the Department's highest-impact digital services. Additional information technology investments are proposed under the Working Capital Fund appropriated account.

Within the request for Departmental Operations is \$129.3 million for Office of Natural Resources Revenue's receipts management programs, \$3.8 million above 2016. The increase includes \$968,000 to fully fund Osage Trust Accounting responsibilities in compliance with the Osage settlement agreement; \$1.0 million to expand Geospatial Information Systems; and \$1.2 million to strengthen ONRR's audit and compliance mission activities.

The 2017 request for the Office of Insular Affairs is \$102.7 million, \$12.4 million above the 2016 level excluding Palau Compact Extension funding of \$13.1 million. The 2017 budget proposes \$149.0 million in permanent funding to support enactment of a new Compact with Palau. The appropriated funding request includes increases of \$4.0 million for community, landscape and infrastructure adaptation and resilience initiatives; \$3.9 million to improve health

and safety conditions in insular school facilities; \$2.0 million to implement energy projects; \$2.0 million for Coral Reef Initiative and Natural Resources; \$1.6 million for direct technical assistance grants; and \$1.0 million to support invasive species eradication efforts, including the coconut rhinoceros beetle and little fire ant. Brown Treesnake Control is funded at \$3.0 million, a program decrease of \$500,000, reflecting completion of an automated aerial bait system in 2015. The budget requests \$3.3 million for Compact of Free Association, level with 2016, excluding \$13.1 million provided for Palau Compact Extension in 2016.

The budget includes \$69.4 million for the Office of the Solicitor, \$3.6 million above 2016 to support additional personnel and necessary legal services for delivering the Department's mission. The Office of the Solicitor's ability to provide early and continuous legal counsel in new priority areas to ensure that developing programs are grounded in established legal principles and precedents is absolutely vital. The requested increase will allow the Office of the Solicitor to provide the much needed preventive assistance that is lost to the demands of non-discretionary litigation. The additional funding will also be used to restart the Honors Program, where recent law graduates are hired at the entry level and trained to assume senior positions. This program will ensure DOI has experienced lawyers as many senior staff becomes eligible for retirement.

The request for the Office of the Inspector General is \$55.9 million, \$5.9 million above 2016 to support audits concerning Offshore Energy Oversight, Indian Country, and Cybersecurity, and Offshore Energy Investigations.

The Office of the Special Trustee request is \$140.4 million, \$1.4 million above 2016. The budget includes increases of \$1.6 million to provide additional estate planning opportunities to Indian Trust beneficiaries; \$1.2 million for an appraiser training program to address the shortage of qualified appraisers and the resulting delays in completing appraisal evaluations; \$1.5 million to enhance talent management capabilities and systems automation; and less than \$400,000 to modernize and improve business processes and enhance the Trust Funds Accounting System. These increases are partially offset by a \$3.4 million reduction in funding for Historical Trust Accounting based on anticipated workload levels.

Department-wide Programs – The 2017 request for the Department's Wildland Fire Management program is \$824.6 million without the proposed fire cap adjustment, and \$1.1 billion including the adjustment. The base budget includes \$276.3 million for fire suppression, which is 70 percent of the 10 year suppression average spending. The cap adjustment of \$290.0 million covers the remaining 30 percent of the 10-year average and provides a contingency. The cap adjustment would only be used for the most severe fires, since it is two percent of the fires that cause 30 percent of the costs. The new budget framework for Wildland Fire Management eliminates the need for additional funds through the FLAME Act.

The 2017 budget includes \$179.1 million for Fuels Management and Resilient Landscapes subactivities, \$9.1 million above 2016 enacted. Of this, \$30.0 million is proposed in a new Resilient Landscapes subactivity to build on resilient landscapes activities supported by Congress in 2015 and 2016. This equates to a \$20.0 million increase for the program to take better advantage of the shared goals of bureau resource management programs to treat large

landscapes to achieve and maintain fire-adapted ecosystems that both reduce the threat of catastrophic wildfire and achieve restoration and other ecological objectives. The increase for Resilient Landscapes is partially offset with a program realignment of \$21.7 million in the Fuels Management program from 2016.

Other highlights in the Wildland Fire Management budget include an increase of \$6.9 million in Preparedness to maintain or strengthen initial and extended attack capacity. Specific increases include \$2.8 million to enhance the initial attack capability of rural fire departments and rural fire protection associations. The budget includes program increases of \$1.6 million to purchase replacement vehicles for the BIA fire program and \$1.5 million to cover utility costs for the Alaska Fire Service's leased space. The budget includes \$20.4 million for Burned Area Rehabilitation, a \$1.5 million increase to address greater post-fire rehabilitation needs caused by the 2015 and 2016 fire seasons; and \$10.0 million for Facilities Construction and Deferred Maintenance, a \$3.6 million increase to address the deferred maintenance backlog.

The 2017 budget request for the Central Hazardous Materials Fund is \$13.5 million, \$3.5 million above 2016, to fund the remedial design for the Red Devil Mine cleanup in Alaska. The 2017 request for Natural Resource Damage Assessment and Restoration is \$9.2 million, \$1.5 million above 2016 to increase restoration activities.

The 2017 budget proposes \$111.5 million for the appropriated portion of the Department's Working Capital Fund, \$44.4 million above 2016. The majority of the increase, \$24.7 million, continues cybersecurity remediation in the wake of the serious cyber intrusions experienced during 2015. Other increases include: \$10.2 million to support the Department's multi-year effort to implement requirements identified under the Digital Accountability and Transparency Act, known as the DATA Act, and monitor compliance; \$5.2 million for the Department's Office Consolidation Strategy; \$2.6 million to fund Federal Information Technology Acquisition Reform Act coordination and reporting activities for the Department; \$1.0 million for Cultural and Scientific Collections; and \$702,000 for Service First activities.

Legislative Proposals

The 2017 President's budget includes a suite of legislative and offsetting collection proposals affecting spending, revenues, and available budget authority that require action by the Congressional authorizing committees. These mandatory proposals address a range of Administration priorities, from investing in high-priority conservation and recreation programs to achieving a fair return to the American taxpayer from the sale of Federal resources and reducing unnecessary spending. The 2017 budget includes seven spending proposals with an estimated \$18.0 billion in outlays over the next decade. This spending is partially offset by revenue and savings proposals to reduce outlays from the Treasury by an estimated \$4.5 billion over the next decade.

Gulf of Mexico Energy Security Act and the Coastal Climate Resilience Program— The Administration is committed to ensuring American taxpayers receive a fair return from the sale of public resources and taxpayers throughout the Country benefit from the development of offshore energy resources owned by all Americans. The Gulf of Mexico Energy Security Act of 2006

opened some additional areas in the Gulf of Mexico for offshore oil and gas leasing, while maintaining moratoria on activities east of the Military Mission Line and within certain distances from the coastline of Florida. The Act provides that 37.5 percent of Outer Continental Shelf revenues from certain leases be distributed to just four coastal States—Alabama, Louisiana, Mississippi, and Texas—and their local governments based on a complex allocation formula. The Administration proposes to repeal GOMESA revenue-sharing payments to these select States from Gulf of Mexico oil and gas leases, which are set to expand substantially starting in 2018.

More than half of the savings, \$2.0 billion, from the repeal of GOMESA revenue sharing payments to States will be redirected to a new Coastal Climate Resilience Program to provide resources for at-risk coastal States, local governments, and their communities to prepare for and adapt to climate change. A portion of these program funds would be set aside to cover the unique impacts of climate change in Alaska where some native villages are so threatened by rising seas, coastal erosion, and storm surges, that they must prepare for potential relocation.

Historic Preservation Fund – The budget includes a legislative proposal to extend the authority to deposit \$150.0 million in receipts from offshore oil and gas revenues annually into the Historic Preservation Fund.

Bureau of Indian Affairs Contract Support Costs – The budget includes a legislative proposal to reclassify funding for the existing Contract Support Costs program from discretionary to mandatory beginning in fiscal year 2018. The budget proposes to adjust the discretionary budget caps to reflect the reclassification to mandatory funding. New contract support cost estimates will be provided on a three-year cycle as part of the reauthorization process.

POWER+ Accelerate AML Distribution for Mine Cleanup and Economic Recovery – 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. 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.

United Mineworkers of America Pension Reform – The budget proposes to better provide for retired coal miners and their families by revising the formula for general fund payments to the 1993 UMWA Health Benefit Plan. The new formula will consider all beneficiaries enrolled in the plan as of enactment, as well as those retirees whose health benefits were denied or reduced as the result of a bituminous coal industry bankruptcy proceeding commenced in 2012. Additionally, the proposal will transfer funds through the Pension Benefit Guaranty Corporation to the trustees of the 1974 UMWA Pension Plan to ensure the plan's long-term solvency. The plan, which covers more than 100,000 mineworkers, is underfunded and approaching insolvency. The new formula will provide an additional \$375.0 million to the UMWA in 2017 and \$4.2 billion over 10 years.

Land and Water Conservation Fund – The budget proposes \$900.0 million in combined current and mandatory funding in 2017, and starting in 2018, the budget proposes permanent authorization of \$900.0 million in mandatory funding for LWCF programs in the Departments of the Interior and Agriculture. During a transition to mandatory funding in 2017, the budget proposes \$425.0 million for mandatory funding and \$475.0 million for current funding, to be shared by Interior and Agriculture.

National Parks Centennial Act – The budget proposes enactment of legislation, the National Park Service Centennial Act, to honor the Park Service's 100th anniversary. The Act specifically authorizes the following: \$100.0 million a year for three years for the Centennial Challenge to leverage private donations; \$300.0 million a year for three years for NPS deferred maintenance; and \$100.0 million a year for three years for a Public Lands Centennial Fund, which will competitively allocate funds for projects on public lands to enhance visitor services and outdoor recreation opportunities, restore lands, repair facilities, and increase energy and water efficiency. The availability of mandatory funding to address deferred maintenance and other conservation projects will allow NPS to plan ahead more efficiently to achieve significant results. Stable and predictable funding streams will allow projects to be appropriately scheduled and phased for more effective project delivery and completion. The proposal includes the authority to collect additional camping or lodging fees, and funds from purchases of the lifetime pass for citizens 62 years of age or older. Receipts for this Second Century Fund will be matched by donations in order to fund visitor enhancement projects. The impact of this new revenue source is estimated at \$40.4 million in 2017. Also included is a proposal to establish a program to allow a Visitor Services Management Authority to award and manage contracts for the operation of commercial visitor services programs and activities.

Federal Land Transaction Facilitation Act – The budget proposes to reauthorize this Act which expired on July 25, 2011, to allow lands identified as suitable for disposal in recent land use plans to be sold using this authority. The sales revenue will be used to fund the acquisition of environmentally sensitive lands and administrative costs associated with conducting the sales.

Recreation Fee Program – The budget proposes legislation to permanently authorize the Federal Lands Recreation Enhancement Act, authorized through September 30, 2017. The program currently brings in an estimated \$335 million in recreation fees annually under this authority that are used to enhance the visitor experience on Federal land recreation sites.

Federal Oil and Gas Reforms – The budget includes a package of legislative reforms to bolster administrative actions to reform management of Interior's onshore and offshore oil and gas programs, with a key focus on improving the return to taxpayers from the sale of these Federal resources and on improving transparency and oversight. Proposed statutory and administrative changes fall into three general categories: advancing royalty reforms, encouraging diligent development of oil and gas leases, and improving revenue collection processes. Collectively, these reforms will generate roughly \$1.7 billion in revenue to the Treasury over 10 years, of which \$1.2 billion will result from statutory changes. Many States also will benefit from higher Federal revenue sharing payments as a result of these reforms.

Palau Compact – On September 3, 2010, the U.S. and the Republic of Palau successfully concluded the review of the Compact of Free Association and signed a 15-year agreement that includes a package of assistance. The budget assumes authorization of mandatory funding for the Compact in 2017 to strengthen the foundations for economic development in Palau by developing public infrastructure and improving health care and education. The cost for this proposal for 2017-2024 is \$149.0 million.

Payments in Lieu of Taxes – The budget proposes to extend PILT mandatory funding for an additional year with the current PILT payment formula based on the amount of Federal land within an eligible unit of local government, its population, and certain other Federal payments the local government may receive. The cost of a one-year extension of the PILT program is estimated to be \$480.0 million in 2017.

Reclamation of Abandoned Hardrock Mines – The budget proposes to create an Abandoned Mine Lands Program for abandoned hardrock sites financed through a new AML fee on hardrock production on both public and private lands. The fee is estimated to generate \$1.8 billion through 2026 to reclaim the highest priority hardrock abandoned sites on Federal, State, tribal, and private lands.

Reform Hardrock Mining on Federal Lands – The budget proposes to institute a leasing program under the Mineral Leasing Act of 1920 for certain hardrock minerals, including gold, silver, lead, zinc, copper, uranium, and molybdenum, currently covered by the General Mining Law of 1872. Half of the receipts will be distributed to the States in which the leases are located and the remaining half will be deposited in the U.S. Treasury. The proposal is projected to generate revenues to the U.S. Treasury of \$80.0 million over 10 years, with larger revenues estimated in following years.

Return Coal Abandoned Mine Land Reclamation Fees to Historic Levels – The budget proposes legislation to modify the 2006 amendments to the Surface Mining Control and Reclamation Act, which lowered the per-ton coal fee companies pay into the AML Fund. The proposal would return the current fee of 28 cents per ton of surface mined coal to 35 cents a ton, the same level companies paid prior to the 2006 fee reduction. The additional revenue, estimated at \$258 million over ten years, will be used to reclaim high priority abandoned coal mines and reduce a portion of the estimated \$6.0 billion needed to address remaining dangerous coal AML sites nationwide.

Termination of AML Payments to Certified States – The 2017 budget proposes to discontinue unrestricted payments to States and Tribes certified for completing their coal reclamation work. This proposal terminates all such payments with estimated savings of \$520.0 million over the next ten years.

Termination of EPAct Geothermal Payments to Counties – The 2017 budget proposes to repeal Section 224(b) of the Energy Policy Act of 2005 to permanently discontinue payments to counties and restore the disposition of Federal geothermal leasing revenues to the historical formula of 50 percent to the States and 50 percent to the Treasury. This results in estimated savings of \$41.0 million over ten years.

Bureau of Land Management Foundation – The budget proposes to establish a congressionally chartered National BLM Foundation to leverage private funding to support public lands, achieve shared outcomes, and focus public support on the BLM mission.

National Foundation for American Indian Education – The budget proposes appropriations language enabling the Secretary to reactivate a foundation created by Congress in 2000 to generate private donations in support of the mission of the Bureau of Indian Education. The proposal will allow the foundation to start anew to obtain nonprofit tax exempt status, with a new Board of Directors focused on making the foundation a successful fund raising entity.

Migratory Bird Hunting and Conservation Stamp Act - Duck Stamp – The budget includes a legislative proposal to provide limited authority to increase the price of a Duck Stamp, with the approval of the Migratory Bird Conservation Commission, to keep pace with inflation.

Wildland Fire Suppression Disaster Cap Adjustment – The budget proposes to amend the Balanced Budget and Emergency Deficit Control Act to establish a new framework for funding Fire Suppression Operations to provide stable funding, while minimizing the adverse impacts of fire transfers on the budgets of other programs. Under this new framework, the 2017 budget request covers 70 percent of the 10-year suppression average within the domestic discretionary cap or \$276.3 million for the Department of the Interior. This base level ensures the cap adjustment will only be used for the most severe fire activity as two percent of the fires incur 30 percent of the costs. Only extreme fires that require emergency response or are near urban areas or activities during abnormally active fire seasons—which rightly should be considered disasters—will be permitted to be funded through the adjustment to the discretionary spending limits. For 2017, the request for the budget cap adjustment for the Department is \$290.0 million. The cap adjustment does not increase overall spending, as the ceiling for the existing disaster relief cap will be reduced by the same amount as the increase required for fire suppression.

Offsetting Collections and Fees

Bureau of Ocean Energy Management Risk Management Fee – The budget proposes appropriations language for a new cost recovery fee to recoup funds for services rendered by the Risk Management Program. The program is critical to protecting the American taxpayer from becoming financially responsible for liabilities associated with oil and gas and renewable energy operations on the Outer Continental Shelf. This proposed fee will generate an estimated \$2.9 million annually, fully offsetting the requested risk management programmatic increase in 2017.

Bureau of Safety and Environmental Enforcement Inspection Fee – The budget includes appropriations language modifying and expanding the enacted inspection fee language to clarify that facilities subject to multiple inspections are subject to additional fees for each inspection. The BSEE estimates the inspection fees will generate \$65.0 million in 2017.

Fee for Onshore Oil and Gas Inspections – Through appropriations language, Interior proposes to implement inspection fees in 2017 for onshore oil and gas activities subject to inspection by BLM. The proposed inspection fees are expected to generate \$48.0 million in 2017, level with 2016. The fees are similar to those already in place for offshore operations and

will support Federal efforts to increase production accountability, safety, and environmental protection.

Grazing Administrative Fee – The budget proposes a grazing administrative fee to offset costs to administer the program. The budget proposes to implement a fee of \$2.50 per animal unit month through appropriations language on a pilot basis. Interior estimates the fee will generate \$16.5 million in 2017 to support the Rangeland Management program at the 2016 level. During the period of the pilot, BLM will work to promulgate regulations to continue this cost recovery fee administratively, once the pilot expires.

National Wildlife Refuge Damage Cost Recovery – The budget includes appropriations language to authorize the Fish and Wildlife Service to retain recoveries for the cost to restore or replace damaged habitat from responsible parties.

Conclusion

Thank you for the opportunity to testify on the President's 2017 budget request for the Department of the Interior. This budget is responsible, and proposes to maintain core capabilities with targeted investments to advance the stewardship of lands and resources, renewable energy, oil and gas development and reforms, water conservation, youth employment and engagement, and improvements in the quality of life in Indian communities. I thank you again for your continued support of the Department's mission. I look forward to answering questions about this budget. This concludes my written statement.

The CHAIRMAN. Thank you, Secretary Jewell.

I understand that Ms. Sarri and Mr. Connor are available for specific questions but are not providing comments this morning. Great.

Let me start with some of the things that I raised in my opening.

I will begin first with the Alaska land conveyances. As you know this has long, long been a priority of mine. I mentioned that your budget reflects more than a 20 percent decrease from last year's level.

I know that there's been back and forth about the potential for change in Federal survey requirements. I have a full pack of correspondence that has gone back and forth between the State of Alaska and the Department of the Interior, but it is very clear that the state is asking that there be engagement.

I am reading directly from a letter dated February 9th from the Commissioner of Natural Resources saying that, "We need BLM to engage in an open and transparent manner to ensure that we come to agreement that advances both the state and Federal interest in terms of survey methodologies."

My question to you, first off, is why you felt you needed to advance a 20 percent decrease when we still have 21 million acres of survey work to complete between the state and the Native Corporations. We have got nearly 300 pending Native allotment parcels to convey which have been pending since 1906 and then about 80 of the Village Corporation conveyances. It does not make sense to me that we would take the foot off the gas, if you will, when we have such a line up in front of us.

Then if you can also speak to the commitment from Interior to engage with the state to ensure that the peer review which is underway and which, I understand, is due to be complete probably by the end of this fiscal year, that there is that discussion going on and that commitment to work with the state to ensure that the method, survey methodologies, are not going to get the State of Alaska in trouble. We do not need to be told that conveyances are complete only to find out that the methodologies do not hold up.

So if you could speak both to the cut in the budget and to working with the state on this.

Secretary JEWELL. Well thank you, Senator.

The BLM believes that new tools, largely the accuracy of GPS measurements, enable us to do conveyances in a much more efficient and faster way than we have before which is why we took some money out of this budget and actually put some of that into the legacy well clean-up.

We believe that with these tools we can accelerate the timeframe to complete the conveyances for both Native lands as well as state lands which we think can be done within 15 years.

The CHAIRMAN. But you will acknowledge that the state has not accepted the methodology that BLM is effectively pushing on them at this point in time, that there has not been acceptance of that, that the process that has been handled, historically, and has been outlined in terms of the requirements, that there has not been agreement between the state and the Federal agencies?

Secretary JEWELL. Well, we will continue to work with the state on that to reach agreement.

I know that——

The CHAIRMAN. I do want to hear that commitment that that will be ongoing.

My concern is that while these discussions are ongoing that we are, again, taking the imperative off of the funding to allow for these conveyances to proceed. So this is something that, I think, the state has been very clear in terms of its need, its demand, for this peer review because we do not have the monuments and the technologies in place in the State of Alaska for you to be able to measure to the same degree that you can in the lower 48 where you do not have as much space as you are dealing with.

My last question to you, real quickly, is and this has been communicated very, very clearly. It stated that the most significant obstacle, and again I am reading from correspondence from the state, and I will submit this for the record, “the most significant obstacle to accelerating the completion of the state’s remaining land entitlement is the revocation of long standing PLOs, the public land orders, that prevent the state from accurately prioritizing these lands most economically beneficial.”

[The information referred to follows:]



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

COMMISSIONER'S OFFICE

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September 18, 2015

Mr. Bud C. Cribley
State Director
Bureau of Land Management
222 West 7th Avenue, #13
Anchorage, Alaska 99513

SUBJECT: Recent Meetings Regarding Survey Methodology for Alaska's Statehood Land Entitlement

Dear Director Cribley:

Thank you for our recent meeting on September 11, 2015 regarding BLM's proposal for using new survey methodology for transferring Alaska's remaining statehood land entitlement and I look forward to meeting with you and your team in the immediate future on September 23, 2015 to continue technical discussions on this issue. Please be assured that we want to see resolution of our differences in approach expeditiously and cooperatively as we move forward with surveying and final patenting of the state's entitlement. We do not feel it is in either party's best interest to resort to litigation or political intervention to settle these disputes and will continue to work with you to find solutions. I look forward to a written response to both this letter and the July 1, 2015 letter to you from Director Goodrum.

While I appreciate your sincerity and candor, I remain entirely unconvinced that, without comprehensive validation method and peer review processes by scientific and technical expert organizations, the proposed use of the Direct Point Position Survey (DPPS) methodology for patenting State of Alaska land entitlement is appropriate and ready for use in Alaska.

It is not in the State's best interest to accept land and, ultimately, not in BLM's best interest to convey land relying on yet untested and unproven methodologies. As stated in the July 1 letter, we recognized and support the federal need to reduce costs and save money associated with the statehood entitlement survey program. However, while this new methodology may initially appear cost effective for the federal government, right now we simply do not know what the ultimate costs and risks to the State may be. We have a responsibility to a host of parties – future landowners seeking title insurance, corporations using State lands, unknowing trespassers, and even potential future federal government users to ensure that patents, and the surveys and legal descriptions underlying them, are robust and reliable.

One only needs to look at the issues that have historically arisen throughout the Western United States as a result of inaccurate land surveys to see the potential gravity of this concern. These errors caused disagreement and litigation that, in cases, took years to resolve and sometimes

could only be addressed through individual acts of the U.S. Congress. As BLM well knows, such Congressional acts are accompanied by a substantial administrative burden on the federal resource agencies and, even more importantly, create significant burdens on private landowners and Native Corporations.


As stated above, I feel that validations and peer reviews of the methodology are absolutely essential before proceeding. A potential starting point is a joint effort to do tests of the new approach. BLM and DNR could assemble a validation team to consider legal and technical problems inherent in controlling boundaries with coordinates and paper platting, and test the field locations of the new DPSS boundaries under varying methods and time periods. We would appreciate further discussion with you regarding this possibility.

It should be noted that our core concerns with BLM's proposal are the integrity of the proposed untested survey methodology and the associated transfer of cost liability to the State and future landowners. However, the State recognizes we must cooperatively work to integrate and understand new and innovative technologies, and it would be beneficial to our interest if these methods received their required due-diligence testing in Alaska's unique geographical circumstances.

The issues raised by Director Goodrum in his prior letter continue to be critical to the State -- most of all the lifting of the attached list of outdated Public Land Orders (P.L.O.s). These administrative hold-overs prevent statutorily authorized state selections from attaching to high priority lands in areas where Alaskan Native Claims Settlement Act land selections have been totally completed. As the State demonstrates good-faith to study and participate in review of new methodologies to dramatically reduce federal survey costs, the Department of Interior and BLM should show corresponding good faith and begin to lift these withdrawals to advance resolution of the State's entitlement.

We will continue to work and meet with you as often as necessary to satisfactorily resolve our mutual concerns.

Sincerely,



Dr. Mark Myers
Commissioner

Attached: July 1, 2015 letter from Director Brent Goodrum
List of assorted P.L.O.s affecting state land selections



THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources

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July 1, 2015

Mr. Bud C. Cribbley
222 West 7th Avenue #13
Anchorage, Alaska 99513

SUBJECT: Survey Methodology of Alaska's Statehood Land Entitlement

Dear Director Cribbley:

I would like to thank you for the opportunity to review and comment on the Bureau of Land Management (BLM)'s newly proposed Direct Point Position Survey (DPPS) methodology of patenting State of Alaska land entitlement. I very much appreciated the opportunity to discuss this novel proposal with BLM's national Chief Cadastral Surveyor, Don Buhler; his policy assistant, Bob Dahl; members of your Alaska BLM Cadastral Survey team; as well as acting Deputy Director for Cadastral Survey, Erika Reed; and your Regional Solicitor Elizabeth Goheski.

This proposal was presented as saving both time and money for the federal government, and accelerating the State's receipt of its entitlement lands. Upon reflecting on our conversations and conferring with my staff, there are a number of issues that I believe merit further review, discussion, and understanding as we continue to move forward.

Historical Background

It is no secret that Alaskans desire to have more local control in managing the State's affairs. The desire for local control of the ownership and use of land played a fundamental role in Alaska's long journey to statehood, and continues to be a significant issue today.

Prior to statehood, the federal government owned 99.8% of the land in Alaska. Congress recognized that such a disproportionate federal land-ownership pattern would suffocate the State's ability to grow the most basic of industries, and granted Alaska the unique opportunity to select its land entitlement. Over the various circumstances of the first thirty-five years of statehood, the State selected land that would suit multiple uses and offered multiple resource values to reflect the State's policy of making land and resources available for maximum use consistent with the public interest.

The state land selections were undertaken with great care and planning, and we have made significant progress in the fifty-six years that we have been working on entitlement issues. However, we need to take the next step towards final transfer and survey of entitlement lands. As I understand from our conversations, as well as numerous presentations by BLM and

Department of the Interior (DOI) leadership, the federal government shares and supports this goal.

The Primary Current Challenge

One of the largest obstacles to Alaska attaining its promised statehood land entitlement is the continued existence of "temporary" Public Land Orders (PLOs). Many of these PLOs were issued more than forty years ago, and are still in place today even though their original intended purposes – including maintaining the availability of lands for the now completed Alaska Native Claims Settlement Act (ANCSA) Corporation land selections – were fulfilled decades ago. These longstanding PLOs continue to prevent high priority top-filed state land selections from attaching to the land in fulfillment of the State's land entitlement.

Lifting these "temporary," yet functionally perpetual, PLOs is the primary action the Secretary of the Interior can take to promote progress on land entitlement issues. To demonstrate a sincere commitment to progress on the entitlement, BLM and DOI should develop transparent processes with definitive timelines to lift these obsolete PLOs.

The Importance and History of Federal Surveys

Section 6(g) of the statehood compact requires the Secretary of the Interior to survey the exterior boundaries of state-selected land and issue a patent for the selected land in terms of the exterior boundary survey. Survey is a federal obligation grounded in law and long-standing practice.

As you know, the tentative approval of land selections transfers management authority to the State and allows the State to utilize the land in ways that will benefit the people of Alaska. This transfer of management authority occurs prior to survey, so survey does not have to be completed for the State to begin to benefit from entitlement lands.

However, a functional survey must be done to complete transfer and is critical for full use of the State's land. For example, furthering the development of and expansion of local governments and communities is a basic tenet of the Alaska Statehood Act, and this can only be achieved through the legal and proper conveyance of fully surveyed land.

The BLM Manual of Instruction for the Survey of the Public Lands of the United States (1947) in place when Alaska became a state in 1959 directed that survey monumentation would be placed at all angle points and at intervals of *every half mile* around the exterior boundaries of townships. Given the size of the tracts and total acreage to be conveyed in Alaska, placing markers every half mile around the exterior boundaries of selected areas represents an incredible federal obligation in Alaska.

The weight of this obligation became apparent shortly after statehood and resulted in embarrassingly slow progress on transferring final title to the new State. Consequently, Assistant Secretary John A. Carver of DOI traveled to Alaska in July of 1963 to work with state officials to address the issues of selection size, perimeter surveys, and monumentation interval.

During these extensive discussions, the parties agreed to a compromise wherein the State would make selections in basic single township blocks and BLM would provide perimeter

monumentation every two miles around the individual township boundaries – a significant concession from the prior half-mile spacing for monuments. This agreed-upon criterion was later confirmed through a Memorandum of Understanding (MOU) signed in 1973 between the BLM and the State.

The State did not make this compromise without reason. The 1973 MOU provided a hope of acquiring title to its selections more rapidly, and included additional provisions providing for acceptance of surveys with even less monumentation, or with no monumentation at all – at the State's discretion. However, by 1981, the State notified BLM that we would no longer accept lands patented without benefit of field survey and monumentation because it was critical to the State's interests. Subsequent surveys that followed were conducted under the compromise "two mile" criteria agreed to by Assistant Secretary Carver and the 1973 MOU.

The Current Survey Proposal

The 1973 MOU represents a carefully negotiated compromise – where the federal survey obligation was lightened, with the consent of the State, to provide the benefit to the State of speeding final survey. As I understand it, the federal government is now seeking to lighten its fundamental entitlement obligation of survey yet again, this time by proposing the use of new technological methods.

BLM has presented the state with a proposal to use a Direct Point Positioning Survey (DPPS) methodology to reduce federal expense and expedite the final patenting associated with the State's remaining entitlement in lieu of the established method of ground survey using the two mile monumentation that has been the standard in Alaska. As proposed, this new method would be selectively applied being used only in Alaska at this time and not in other states with existing federal survey obligations, only on state-entitlement land, and only in certain parts of the state as BLM has already acknowledged that the technology would not be appropriate, and would not provide cost-efficiencies, for areas such as Southeast Alaska. Additionally, as was the case for the 1973 MOU, any such compromise must receive the endorsement and agreement of the State.

The Challenges of Data and Technology Gaps in Alaska

DPPS substitutes the on-the-ground information used in traditional surveying practice with complex data-based calculations and projections. In order for DPPS to be practical, surveyors will need to rely upon comprehensive data and information from the National Geodetic Survey (NGS), the National Spatial Reference System (NSRS), and the Continuously Operating Reference Stations (CORS), among other systems.

This is a huge challenge in Alaska given that our current state of mapping and land position data is not even close to national standards. DOI itself has long recognized that the state of Alaska has not been adequately mapped at suitable scale. According to the U.S. Geologic Survey, "Alaska is the only State that does not have current digital statewide map coverage at a scale comparable to the rest of the United States. The majority of the USGS topographic maps of Alaska in the current collection are 40 to 50 years old." While DOI, the National Oceanic and Atmospheric Administration (NOAA) and other agencies in cooperation with the State have been diligently working toward improved mapping of the state, it is far from complete.

To provide a technical example, there is insufficient densification of the CORS network within the state of Alaska, but the proposed DPPS methodology would rely heavily upon this kind of information. Furthermore, despite the great cooperative work being done by the federal agencies, there is currently no reliable Digital Elevation Model for approximately half of the State, and a realistic geoid model for Alaska does not yet exist. These are significant technical hurdles that generate a great degree of uncertainty for the functionality of DPPS.

The DPPS methodology may be very promising in theory, and with data-collection and technological advances may someday provide a truly efficient and cost-effective improvement to survey methods. However, upon initial examination, the lack of these essential support and data systems make Alaska inappropriate to use as even a test case for the proposed DPPS experiment.

Another significant challenge is the application of this uncertain methodology to only some of the State's land. The majority of the State's entitlement has already been surveyed using traditional, time-proven methods and with physical monuments consistent with BLM's Manuals of Instructions for Surveys and the 1973 MOU between BLM and the State of Alaska. DPPS deviates from the U.S. Land Tenure System where on the ground surveys and physical monuments control property boundaries for selections distributed all throughout the State, adjacent to parcels on which DPPS is proposed to be used. These parcels are also adjacent to the approximately 45 million acres of ANCSA Corporation lands, which are also monumented under law at all angle points and every 2 miles around the exterior of ANCSA selected lands.

Maintaining uniform land records through accurate survey is critical for Alaska's complex patchwork of state, federal, ANCSA corporation, and private land ownership. With the interfacing concerns summarized above, DPPS may not be consistent with the numerous existing survey boundaries already established all throughout the State.

The State's Fundamental Concerns

In this context, the DPSS proposal does not appear to be a win-win proposition. BLM's motivation seems to be to deploy new technology to cut costs, which the State fully understands and supports. However, with the data limitations highlighted above, application of this novel method may mean the estimated \$500 million in BLM cost reduction is simply a \$500 million cost transfer to the State for survey activities that the federal government is obligated to perform.

Unfortunately, Alaska is currently faced with challenging fiscal uncertainty which makes such a potential cost transfer even more concerning. In an environment where declining revenue has resulted in budget cuts to many State programs, services and positions, it would be irresponsible to expose the State to absorbing the risks and costs of experimenting with an untested land survey methodology.

In summary, I maintain that survey methodologies for the statehood entitlement cannot be implemented without the full consent and agreement of the State of Alaska. Until it is abundantly clear that DPPS is appropriate for providing certainty to the State of Alaska and the technologies necessary for its implementation are well demonstrated, I cannot recommend this consent.

Moving Forward

To be clear, the State supports technological progress and the need to provide federal cost savings when possible. However, the magnitude of the proposed deviation from current practice; the intent to utilize this new method solely in Alaska at this time; and the fact that the methodology is still very much in flux and has not been fully documented or articulated all demand that the proposed methodology must be rigorously and independently evaluated before being implemented anywhere.

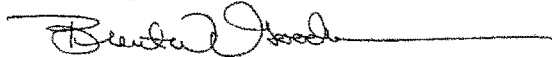
I strongly recommend that this proposal be thoroughly peer reviewed by leading scientific organizations such as the National Academy of Sciences, the National Society of Professional Surveyors and technical specialists from NOAA's National Geodetic Survey.

Secondly, if such a dynamic change is to be made to federal surveying standards, a comprehensive public process should be initiated and made available for public stakeholders' education and input. Rushing to implement such a novel survey and land conveyance methodology without thorough vetting may prove to be detrimental to all parties involved: the State, the BLM, other potentially affected land owners, and the general public.

I want to repeat that the State is not wholly opposed to the concept of the proposed DPSS methodology, and in fact stands to benefit from technological advancement that supports more efficient land surveys. However, the State has a statutory obligation to utilize legally reliable and technically accurate surveys and land records. As state officials, we would be remiss to introduce uncertainty into the process that could delay the utilization of land that the State has already been working for half a century to receive.

I strongly believe that we share the common goal and desire for the state of Alaska to fully realize its complete land entitlement as envisioned by our country's leaders at the time of statehood and yearned for by Alaskans yet today. I also believe that through a transparent and open process that we can work together to find an equitable solution that would serve our nation and Alaskans sufficiently well for generations to come. The sooner that statehood entitlement lands are conveyed and patented, the sooner that the focus of future federal resources can be directed to other necessary activities. I sincerely look forward to our continued dialogue and partnership on this very important endeavor.

Very Respectfully,



Brent Goodrum
Director, Division of Mining, Land and Water

Cc: Bill Walker, Governor
Mark Myers, Commissioner, Department of Natural Resources

List of assorted PLOs affecting State Land Selections

9/18/2015

ANCSA PLO's:	Modified or Amended by:
5169	5191, 5256, 5396, 5428, 5439, 5556
5170	5395, 5450, 5557
5171	5253, 5389, 5428
5172	5191, 5392, 5428, 5442
5173	5191, 5213, 5252, 5391, 5321
5174	5256, 5501
5175	5191, 5394, 5438, 5452, 5519
5176	5191, 5252, 5393, 5454, 5555
5177	5397, 5191
5178	5214, 5252, 5257
5184	6787
5188	
5254	5181, 5186
Pipeline PLO:	Modified or Amended by:
5150	5151, 5182, 5190, 5405, 5431, 5460, 5509, 5669, 6329, 6533, 6607, 6683, 6727, 6932, 6937, 7064, 7150, 7692



THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources

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October 16, 2015

Michael Schoder
Chief Cadastral Surveyor, Alaska
Bureau of Land Management
Alaska State Office
222 W. 7th Ave, #13
Anchorage, Alaska 99513-7504

Subject: Items needed for review of DPPS

Dear Mr. Schoder: *Mike,*

During our joint discussions, we have requested some items which are necessary for us to have in order to review the proposed DPPS survey method, and as we work on the review, we see that there are additional items that would be helpful. We've compiled these into the following list. If you would, please send existing documents as soon as possible and forward the others as they are developed.

1. List of all areas that have been or are being surveyed by DPPS. Copies of all data and products that have been generated to date.
2. Complete copy of BLM's Group 100 file.
3. Copy of contents of File 2620 "State Grants" folder 5, BLM-ASO, all documents, including Roger Robinson to Division Chiefs and Land Office managers, July 24, 1963, and State Director (BLM) to Director (BLM), August 8, 1963.
4. Copies of all policy and instruction memorandums affecting the survey of state entitlement lands.
5. Comprehensive cost estimate to have a private sector surveyor to mark and file a record of survey of BLM's quarter section example: NE ¼ Sec 16, T15 N, 25 E, KRM.
6. Resurvey Procedures identifying minimum criteria to identify the physical location on the ground of DPPS corners. Typical field survey activities for DPPS resurveys, ref. draft IM for DPPS original surveys. Specifics that we are looking at include but not limited to:

- In order to protect bona fide rights of patentees and to "get on the datum", what monuments at a minimum would be required to be tied when surveying ("resurveying") a parcel to place monuments at patent corners? For example, using the BLM Group 948, in order to properly monument a single section in T 25 N, R 22 W, KRM, what existing monuments that were tied to the NSRS during the original survey would a surveyor need to tie in order to "protect the plat", get on the plat datum and protect the bona fide rights of all other patentees on the plat? What are the options in selecting of monuments to be tied?
- Rules for establishment of aliquot part corners where portions of a section line are fixed by coordinates and portions have been monumented.
- Without monuments in the ground, what alternative would a patentee have if the plat was destroyed and/or all digital copies deleted?
- What are the procedures to be applied when earthquakes change the shape of the ground where the plat monumented control has been moved or changed such that measurements between them cannot be verified and make it hard to re-compute the plat for future survey in the field? (Whereas, on conventional surveys, set interior monuments moved by a quake in any direction may be recovered offering important information on how the earth has moved and how human land boundaries are affected.)
- Specific and step by step criteria for the private surveyor to meet when surveying a patent parcel which if met, the federal government will accept the survey. Specific documentation requirements for said surveys. For example, what minimum occupation time and what errors are acceptable for an OPUS solution.
- Alternatives to determine boundaries in areas where GPS reception is inadequate.

We appreciate your providing this information which will allow us to conduct a comprehensive review of DPPS and determine how it varies from existing procedure. If you have any questions, please call.

Very Respectfully,



Gerald Jennings, PLS, CFedS
Chief, Survey Section

Cc: Brent Goodrum, Director
Marty Parsons, Deputy Director



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
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In Reply Refer To:
9600 (AK-940)

DEC 15 2015

Mr. Brent Goodrum
Director, Division of Mining, Land and Water
State of Alaska, Department of Natural Resources
550 W. 7th Avenue, Suite 1070
Anchorage, Alaska 99501

Dear Mr. Goodrum:

Brent

I am writing in response to your letter of July 1, 2015, on the Bureau of Land Management's (BLM) improved method for surveying tentatively approved Alaska State lands. I want to express my appreciation for you and your staff's extensive involvement and critical input during this process.

For many years, BLM Alaska has been in discussions with the Department of Natural Resources on ways to improve efficiency and final product of official surveys for lands selected under authority of the Alaska Statehood Act. After BLM Director Kornze and Governor Walker met in March and agreed to work together to accelerate the transfer of selected lands to the State of Alaska, we held a series of meetings between the BLM cadastral survey and State survey staffs to detail our improved survey method and to address any questions or concerns. More recently, my staff and I met with Commissioner Myers twice in September to further discuss the concerns raised in your July 1st letter. I was especially pleased with the open discussion between our respective survey staffs that occurred on September 21.

The State of Alaska entered the Union with a unique promise from the United States government – the Alaska Statehood act provides the people of Alaska with the opportunity to select more than 100 million acres of land to ensure the economic security and future development of the State. As the modern home of the General Land Office, the BLM has the important role of surveying and conveying that land. As you are well aware, nearly 25 million acres of the BLM's State entitlement workload in Alaska remain to be surveyed, and the State has yet to request priority conveyance of more than 5 million acres, the remainder of the State's original

entitlement. The Alaska Land Transfer Program is the largest remaining workload in the BLM's cadastral survey program. Under the current survey and monumentation protocols called for in the 1973 Memorandum of Understanding between the Governor and the BLM Director, the BLM would be required to survey each conveyance area and monument at two-mile intervals around each township. The BLM estimates that this approach would take decades to complete the Alaska Land Transfer program, even at current annual funding rates of approximately \$20 million.

The BLM is committed to improving and accelerating the Alaska land transfer process wherever opportunities exist in order to fulfill the promise of the Alaska Statehood Act. In this spirit, the BLM has identified a faster, more accurate, and more cost-effective method, that would provide the State of Alaska with a higher quality survey record than is currently available and would allow the BLM to complete the survey and conveyance work for all remaining State land selections by 2030, less than half the time of the current process. This new approach is consistent with Section 6(g) of the Statehood Act that acknowledges the unique difficulties with traditional surveying in Alaska as a result of the size of the State's entitlement, the remoteness, geographic expanse, and rugged terrain, and the need to expeditiously patent land to the State. Section 6(g) only requires the BLM to complete an exterior boundary survey for patent of areas of land selected by the State. Effective implementation of this new approach has the potential to save hundreds of millions of dollars for the American taxpayer, and the high-quality data provided by this new survey method will likely save the State both time and money after the land has been transferred. It is our sincere hope to partner with the State of Alaska in this innovative new survey method to convey the remaining State lands out of Federal ownership and finally fulfill the promise of the Alaska Statehood Act.

Since the creation of the General Land Office in 1812, the BLM and its predecessor agencies have been in the business of surveying, selling, and otherwise conveying the lands of the United States. From the earliest days of our nation's history, the job of a federal land surveyor has been to identify the boundaries of the federal estate and provide the legal structure for land ownership in the United States. As could be expected, the art of surveying has significantly evolved over the past 200 years, in large part thanks to innovations in federal survey procedures. While surveyors working at the turn of the 19th century dragged a 66-foot chain across the landscape and used sighting of the sun and stars to determine their direction and distance measurements, the advent of laser technology in the 1970s allowed surveyors to set aside their chains and increase their efficiency by measuring for miles at a time with a "Total Station" and a single electronic distance measurement (EDM). Since the late 1980s, when GPS became more widely available, BLM land surveyors have been working with these continuous, worldwide, three-dimensional positioning information systems to obtain indirect field measurements which are then converted into direct measurements for bearing and distance recorded on the official survey record. Going forward, the BLM intends to use a Direct Point Positioning Survey (DPPS)

system, which employs advanced GPS technology. Using DPPS is the logical next step in the evolution of cadastral survey.

As we have discussed with you and your staff, using the DPPS method, the agency will identify corners and other reference points, which is similar to current practices across the Bureau. However, rather than sending a team to the field for weeks to place a physical monument every two miles around each township surveyed, the BLM field team would physically monument only the corners or other angle points around the exterior boundary of the State's selection. The BLM would then provide the state with data and survey plats that use DPPS data that identifies and fixes all township and section corners contained within the surveyed area. Using this method, BLM will meet the highest standards to provide unambiguous and repeatable coordinates for the future surveys and resurveys related to the original cadastral survey record. I would note that the Alaska Department of Transportation and Public Facilities has been using a similar method to fix the legal centerlines of highways in Alaska for nearly a decade and this data has been utilized by professional land surveyors in Alaska to perform their land and right-of-way surveys. Additionally, the BLM survey and coordinate record reporting standards are compliant with the Federal Geographic Data Committee standards¹ for spatial referencing by coordinates.

The BLM has clear authority to determine the appropriate method to complete the Federal survey of lands to be conveyed and has determined that the DPPS methods integrate the best available survey practices along with the most reliable technology available to accomplish surveys and conveyances in a substantially shorter amount of time, while providing high quality data as well as number of ancillary benefits to both the BLM and the State of Alaska. These surveys will provide greater certainty of correct, consistent and repeatable survey data and will allow future leaseholders and landowners to easily identify parcel boundaries because they can use geographic coordinates from the official survey record rather than attempting to calculate them based on legacy measurement of bearings and distances. Fixing survey corners by digital coordinates will also eliminate the need and the cost of finding, maintaining and replacing physical monuments that commonly are lost in Alaska due to natural forces, such as rejection due to frost heave and erosion. The BLM has developed the attached draft policy memorandum to guide use of DPPS in Alaska, a previous version of which was shared at our September meeting.

As discussed above, the DPPS survey method will also provide significant cost and time savings to both the BLM and the State of Alaska. We estimate that the DPPS survey method will allow the agency to complete the remaining State lands surveys in 10 years or less with hundreds of millions of dollars in cost savings to the Federal taxpayer. We believe this will result in significant cost savings to the State of Alaska as well. Exact cost savings will inevitably depend on the location, terrain and size of the survey project. At a minimum, this new survey method will provide significant cost savings for the State of Alaska, through reduction of marked corner

¹ FGDC 19111:2007 and 19111-2:2007

recoveries, eliminating the need for rehabilitation of monuments and accessories, less on-project site computational costs to develop legal corner locations, and a simplified resurvey plat. Additionally, we believe that the better quality data provided to the State could reduce the State's field survey workload by more than half. An example cost comparison for future survey differences from legacy surveys to DPPSs is attached for reference.

I understand you continue to have technical concerns about the densification level of Continuously Operating Reference Stations (CORS) as well as the lack of Digital Elevation and accurate GPS ellipsoid-geoid model coverage in the State of Alaska. However, as we discussed during our September meetings, BLM testing of DPPS has determined an adequate density of CORS even in remote parts of Alaska. Additionally, the Digital Elevation Models (DEMs) and terrain mapping differ from cadastral survey records because they represent and report elevation data which is not required as part of cadastral survey records. Measuring accurately with GPS, including ties to CORS, and reporting current geographic 2-D positions (latitude and longitude) in reference to the National Spatial Reference System (NSRS) datum, is a well-established technical survey process. For making GPS measurements and reporting coordinate data in reference to the NSRS, BLM is guided by both our national GPS standards policy² and the requirements of our Manual of Surveying Instructions, 2009 (Manual). Finally, the BLM does not report elevations on cadastral surveys, so use of an ellipsoid-geoid model is not applicable.

Completing the State Land Transfer program on an accelerated schedule will also allow the BLM to more quickly turn to other land transfer priorities in the State of Alaska including conveyances to Alaska Native Corporations and Villages and resolving issues for Alaska Native Veterans. We look forward to working with you on increasing the speed at which the United States can fulfill the State's entitlement and provide a high quality and reliable final product. The DPPS method BLM has proposed meets those goals and falls within BLM's authority and policy for cadastral surveys.

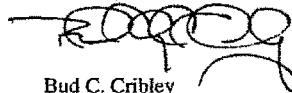
We do not want to further delay the completion of our survey and patent obligation to the State. We have a unique opportunity to save time and money for both the Federal government and the State of Alaska, while providing for the continued economic development of the State and we cannot pass it up.

Therefore, in accordance with MOU AK-2012-006, the BLM is providing 30 days' notice and notifying the State for the need to renegotiate the 1973 and 2012 MOUs. The focus of the MOU renegotiation would be required on-the-ground monumentation of the State's selections and the style of survey record. I request that we begin negotiations as soon as possible and have a new MOU in place by the end of January.

² USDI/USDA Standards and Guidelines for Cadastral Surveys using Global Positioning System Methods, May 9, 2001 and USDI/USDA Standards for the Positional Accuracy of Cadastral Surveys when Using Global Navigation Satellite Systems (GNSS), February 23, 2009

It is our sincere hope to jointly innovate in this area with the state of Alaska to fulfill the promise of the Alaska Statehood Act. I look forward to working with the State to further refine the process and proceed with renegotiating the terms of the existing MOUs.

Sincerely,



Bud C. Cribley
State Director

Enclosures:

- 1) Draft WO-350 Memorandum Methods for the Initial Survey of State of Alaska Selected Lands
- 2) Future Survey Cost Comparisons example



THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources

DIVISION OF MINING, LAND & WATER

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January 13, 2016

Mr. Bud C. Cribley
222 West 7th Avenue #13
Anchorage, Alaska 99513

SUBJECT: Negotiations Regarding Survey of Alaska's Remaining Statehood Land Entitlement

Dear Director Cribley:

Thank you for your December 15, 2015 response to my July 1, 2015 letter regarding the Bureau of Land Management's (BLM) survey methodology for the State of Alaska's remaining land entitlement. I was also pleased with our open discussion on September 21 and am optimistic that future discussions will continue to make progress on this issue. I understand from your letter that BLM has provided 30 days notice to renegotiate the 1973 and 2012 Memoranda of Understanding (MOUs). The State recognizes the BLM's desire for efficiency and cost savings and we are committed to negotiating with you to explore possibilities that will be beneficial to both BLM and the State of Alaska – but we want to assure that the survey standards are not compromised and that the incorporation of new technology and alternative methodologies have been properly reviewed and validated prior to implementation.

Your requested topics for our negotiations were the amount of on-the-ground monumentation for state selections and the style of survey record. In addition to these items, I recommend negotiations between the DNR Commissioner and yourself include other ideas which are detailed below that support reductions in federal obligations for monumentation required under Section 6(g) of the Statehood Act.

The Statehood Act rather than these MOUs fundamentally controls the continuing obligations of the federal government to survey state land selections, but the MOUs capture and document the compromises and implementation processes mutually agreed upon by the State of Alaska and the Department of Interior/BLM shortly after Alaska's entry into the Union. In practice, these agreements have served both parties for over half a century, and are grounded in official statements contemporaneous with the Statehood Act, such as Department of the Interior Assistant Secretary Carver's August 19, 1963 letter to DNR Commissioner Holdsworth addressing fulfillment of section 6(g) of the Alaska Statehood Act on the issues of selection size, perimeter surveys, and monumentation interval.

Historically, the United States government has the responsibility of surveying the public lands of the United States to further the orderly development of lands, as well as to accurately describe

lands to which it passes title. These longstanding agreements brokered by Assistant Secretary Carver and Commissioner Holdsworth and other federal and state officials deal with how the State made its selections – in single township blocks, and how BLM agreed to and has surveyed those selections, with average two-mile perimeter monumentation around the exterior boundaries of each individual township selection. The State's selections have been made under this compromised size. It is important that we negotiate in good faith about the level of survey for each selection, because the Statehood Act directs each individual selection to be surveyed.¹ Aggregation of multiple state selections on a large scale is not an issue the State can agree to revisit. BLM's proposed aggregation of hundreds of state selections would result in very large blocks of land that have no physical, on-the-ground monumentation for dozens of miles, resulting in potentially huge costs for re-surveys for future lessees and users of this land.

We understand and sympathize with your desire to reduce costs, and agree that the number of monuments placed in the ground is the driver for most of the existing cost. We acknowledge that, if proven viable, using the proposed DPPS methodology would likely reduce the time to complete state surveys and patent remaining entitlement; but, we remain steadfast in our requirement to systematically evaluate the validity of DPSS before accepting any patents that are sent to the State by the BLM under this new proposed methodology. As you state, DPPS may reduce the duration of this program from 30 years to 20 years, we believe that taking the necessary time to address the State's concerns before rushing into this decision is consistent with the goal of accelerating final patent issuance.

We also propose that our negotiations be conducted while the vetting of DPPS continues. As you discussed on September 21, 2015, there may be alternatives to DPPS. We believe it is premature to commit to DPPS until it is demonstrated that it is as technically sound or better than existing survey methods. Currently, the State remains concerned that the proposed DPPS methodology may create a host of problems associated with ambiguous and unstable boundaries.

As you are aware, the State of Alaska is working with the National Society of Professional Surveyors (NSPS), who is also in communication with your staff and BLM Washington Cadastral Survey, in order to conduct an independent assessment of the proposed DPPS methodology. This independent review – requested by the State – is in the very early stages. It is our understanding that NSPS has been awaiting a couple of months for materials that BLM is preparing, and we should work together to ensure this independent assessment moves forward expeditiously.

Additionally, we have previously communicated the State of Alaska's requirement to field test BLM's proposed DPPS methodology to validate expectations of improved accuracy, consistency, and repeatability for survey data – at a cheaper cost – that the DPPS generates. We are fully aware that GPS as a measurement tool is a proven technology; however, the controlling of property boundaries by the National Spatial Reference System (NSRS) in the proposed manner is not. The only way to validate these claims is by field testing and expert objective technical analysis. Our intention is to conduct this analysis upon completion of the independent

¹ In fact, the State has further compromised on BLM's mandated survey responsibilities by generally selecting lands no smaller than townships when the Statehood Act allows selections as small as ¼ township.

assessment so that we may consider and incorporate any of the assessment team's findings or suggestions.

If the DPPS methodology is ultimately shown to be effective, then we can confidently move forward to achieve cost and time savings knowing that we have a foundation of objective and technical analysis. If the DPSS methodology proves ineffective or imprecise because of some of the limitations and concerns raised by the State without a thorough field testing and demonstration, it will undermine the long history of BLM work in the cadastral field and call into question the use of this new survey methodology not only for land conveyances but also other realty activities where this methodology may be beneficial, such as: permits to drill, rights-of-way, land sales, and land exchanges. Jeopardizing the credibility and reputation BLM has rightly earned over the decades as the authoritative source of cadastral information is a substantial risk to federal interests.

The State has recently received some of the materials requested from your staff, such as the draft policy for (re)surveys. It is essential that we receive the remaining information we requested for our testing of DPPS and making valid cost estimates to compare future survey differences for parcels created under current standards versus DPPS surveys. While we remain concerned that the costs passed on to subsequent landowners may be a burden when compared to existing survey methods, this material will help us better assess this issue.

Additionally, your office recently provided data for Group 948, but before we begin to plan our field validation we also need the data for the eight group surveys conducted in 2014 and 2015 under the proposed DPPS methodology. We look forward to working with you to share and understand this technical data. As discussed above, we plan to conduct these field tests after the completion of the NSPS peer review has identified relevant issues for field validation and confirmation.

In this context, the State is eager to engage in mutually beneficial negotiations about survey methods that maximize the use of technology and limit costs and time. We would like to propose the following ideas and topics to include in our discussions to promote fair but cost-effective and efficient surveys:

- Lifting of Public Land Orders and federal withdrawals that unnecessarily delay the conveyance of over five million acres of remaining land entitlement;
- "Right-sizing" of Tentatively Approved lands as they convert to patent;
- Modifying minimum monumentation standards to meet the needs of each agency (such as monumentation based on anticipated use or location);
- Setting up a "monument bank" from which the State could receive some number of additional monuments as needed;
- Support and funding for improvements to control networks in Alaska;
- Caps on the greatest distance between monuments and the greatest distance from a platted parcel to a marked corner which was tied to the original NSRS datum; and
- A number of other ancillary topics, as well as topics relevant to BLM's interests and authorities.

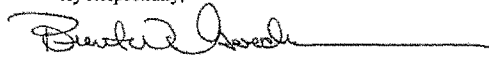
The State believes that a fair balance of these ideas can result in significant immediate federal cost savings without rushing utilization of the unproven DPPS methodology, and potentially without compromising the State's interests. That said, utilizing some or all of these concepts in concert with an appropriately timed implementation of a demonstrated and proven DPPS or DPPS-like system in the future should certainly be considered in our discussions and negotiations.

As communicated previously, the most significant obstacle to accelerating the completion of the State's remaining land entitlement is the revocation of long standing Public Land Orders (PLOs) that prevent the state from accurately prioritizing those lands most economically beneficial to the state's future. These obsolete PLOs inhibit the state's ability to adequately explore and determine mineral potential by prohibiting location of minerals on lands which are segregated through the PLO. The BLM's own report to Congress in 2006 indicated that the withdrawals "are an unnecessary encumbrance on the public land records complicating interpretation of title records by the public". The same report summarized, "there are more than 158,958,000 acres of d-1 withdrawals in Alaska... Approximately 152,181,400 acres or 95% of these withdrawals could be lifted consistent with the protection of the public's interest." The State and BLM are in complete agreement on this recommendation, and federal action needs to be taken.

Note: by separate correspondence Department of Natural Resources Commissioner, Mark Myers, is submitting to Deputy Secretary of Interior, Mike Connor, a list of critical PLOs to be lifted by the Secretary of Interior. The PLOs include: 5150, 5174, 5180, 5181, 5184, and 5187.

Thank you for your letter and the materials you have provided. We commit to continued good faith discussions to reduce future survey cost obligations and to achieve meaningful time savings associated with the completion of the State of Alaska's remaining land entitlement. I look forward to engaging in productive negotiations on these survey issues with you in the near future and am available to work with the Commissioner's Office to schedule our initial negotiations at your request.

Very Respectfully,



Brent Goodrum
Director, Division of Mining, Land & Water

Cc: Mark Myers, Commissioner, Department of Natural Resources

Again, I put that out in front of you as a direct request from the state that we can move on lifting these PLOs and the Federal withdrawals that unnecessarily delay. That is something that we would like to attempt to work with you to advance that aspect.

Secretary JEWELL. We're happy to take that question for the record and provide you with a written response on this.

The CHAIRMAN. Okay.

Secretary JEWELL.: Thank you.

The CHAIRMAN. Since Senator Cantwell is not here, I will turn to Senator Franken.

Senator FRANKEN. Thank you, Madam Chair.

Secretary Jewell, first of all, before I get to two issues that you have heard from me about for the last several years, I would like to thank you for providing full funding for the Land and Water Conservation Fund. Thank you for that.

Secretary Jewell, ever since I first came to the Senate I have been raising the issue about the Bug-O-Nay-Ge-Shig School on Leech Lake Reservation in Minnesota. I have been pushing very hard to get construction money for the school, since I have been here.

I am pleased that you had the opportunity to visit the school, thank you for doing that, and you got to see the deplorable conditions for yourself. You saw first-hand what the students and teachers of the school have to deal with every day. Children in Indian schools must be able to learn in a safe environment with modern facilities. I am very disappointed that the Bug-O-Nay-Ge-Shig School has still not been rebuilt.

Secretary Jewell, what is the status of rebuilding the school and why is it taking so long?

Secretary JEWELL. Thanks for the question and more importantly, Senator, thank you for your advocacy in raising awareness of the issues that we face across Indian Country with the condition of tribal schools. It's really deplorable in many locations with nearly a third of our schools in poor condition.

I did visit the Bug School. It is in bad condition, the high school is. I appreciate the support that you put in the budget for 2016 with regard to replacement facilities.

We are undertaking a process of prioritizing schools that need full campus replacement. We have, just now, identified the final two schools on the 2004 list because funding has been made available for their replacement. We're going through a process that's dictated by the No Child Left Behind Act on creating that next priority list, but that is for whole campus replacement.

So we will, this spring, come out with the prioritized list for whole campus replacement. The replacement school construction for a building like the Bug-O-Nay-Ge-Shig School is separate from that. I would anticipate that in the coming months you will see clarity on that facility and replacement school facilities facilitated by the support that you provided in the budget for 2016. So, thank you.

Senator FRANKEN. I understand. Thank you.

I continue to be frustrated with the slow pace of funding for rural water projects. Local communities in Minnesota have prepaid 100 percent and throughout the project in South Dakota and Iowa, paid

100 percent of their share of the Lewis and Clark Regional Water System. State and local partners are doing their part, but the Administration has routinely underfunded the project and unfortunately your Fiscal Year '17 budget request is no exception. I raised this issue, as you know, year after year because it continues to be a source of frustration for Minnesota communities.

What is your recommendation for addressing this funding shortage? How can we work together to complete the Lewis and Clark Regional Water System and deliver water to these rural communities that have paid in full their fair share and still have not gotten water?

Secretary JEWELL. Senator Franken, I appreciate your ongoing advocacy for Lewis and Clark and rural water in general and working toward a budget set in the budget agreement negotiated. We did have to make some hard decisions but with your indulgence I'm going to turn to my colleague, Mike Connor, who is really our expert on water issues.

Mike?

Mr. CONNOR. Thank you.

Senator, we've lived through this frustration with the funding for rural water projects, and I've talked to you many times. Since we invested about \$240 million in rural water projects through the Recovery Act funding, our budgets have been constrained given other priorities, legal obligations, that Reclamation has.

We're trying to maintain a level of funding to keep the project moving forward. I think we had \$3 million in '16, \$3 million in the '17 budget. We are very pleased with the additional money that Congress wrote in, the additional \$47 million for construction activity, and I think we allocated an additional \$7 million to Lewis and Clark specifically from those resources.

I think we will continue to invest those funds that are written. I know it's a priority for many members here and work with the communities to make incremental progress and meaningful completion of segments of each of these projects.

We've got about a \$1.3-\$1.4 billion backlog in these projects. They're good projects. They just don't compete at the level of some other legal obligations that we have within Reclamation's budget.

Senator FRANKEN. I am out of time. So thank you for those. I have some other questions I would like to submit for the record.

Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Franken.

Senator CAPITO?

Senator CAPITO. Thank you, Madam Chair and thank you, Secretary Jewell, for being with us today to talk about the budget.

First, I would like to highlight the condition, I think we have talked about this, the Canaan Valley National Refuge Headquarters in, sort of, the center of West Virginia. I visited there several times and have talked with the director and regional director at Fish and Wildlife regarding the undesirable condition of the Canaan Valley National Refuge Headquarters and Visitors Center.

We have been working with them and with you all to try to bump them up on the list. I understand they are not on the list for this present year, but I am putting a plug in for that and hoping that maybe if some construction funding becomes available for

planning that we can move forward on that. I do not know if you have a comment on that or if you are aware of that project?

Secretary JEWELL. I am certainly aware of the project.

Senator CAPITO. Yes.

Secretary JEWELL. Appreciate your advocacy. It didn't make it on the priority list.

Senator CAPITO. Right.

Secretary JEWELL. Because of the long list of demands, but we'd be very happy to continue to look at that as construction money comes available.

Senator CAPITO. Thank you.

Secretary JEWELL. Thank you.

Senator CAPITO. Thank you for that, I appreciate that.

I would like to talk a little bit about the impact the Stream Protection Rule is having on mining, particularly on the underground mining. I know the rule is not completely finished. We just had Mr. Pizarchik at, I said his name wrong, Pizarchik, at EPW to talk about the effect not only on surface mining but on the underground mining. As you know, there is a definite difference of opinion as to whether this actually will impact our underground mines. What comment would you have on that and where is the status of the rule?

I was looking through your budget and I do not see any kind of implementation dollars that you have allotted for to implement this thousands of pages rule which, I think, is very complicated. What is the status of that?

Secretary JEWELL. Let me talk briefly about the status of on the rule, and then I'm going to turn to Kris Sarri for specifics around budget amounts.

The Stream Protection Rule is really updating a rule that says we need to know what the baseline water situation is in watersheds so that we know if they've been impacted, can put them back to the way that they were. We believe this is very important given the water quality impacts that have happened across, particularly Appalachian regions, with mining practices in the past and the impact on water quality.

Kris, the timing on the rule?

Ms. SARRI. I am sorry. We just have one mic up here.

The rule is still under development.

Senator CAPITO. Right. Right.

Ms. SARRI. So there's no specific time yet.

Senator CAPITO. I would just say here that I have had some serious reservations about the far reaching nature of it. If we are going to be going after a balanced energy policy, this will have great impacts on my state, as many of the other regulations that have moved through.

I want to ask a final question. I noticed in your budget you have the money for the miner health and pension fix with the UMW miners, who are basically up against the wall in terms of their ability to realize a benefit that was promised to them and had been promised to them through their service as our nation's coal miners and their families. Obviously this heavily impacts both Senator Manchin and I, from West Virginia, heavily impacts our state. I noticed that you have a \$4.2 billion allotment for this, that you are

going to go through the PBGC. Where are you going to get this money?

I want to see this fix come forward. I do not know if you figured out how we are going to get this done because we have been trying to work very deeply, thought we might have it on the Omnibus. What is the Department of the Interior's solution to this problem?

Secretary JEWELL. I'm going to take a crack at a high level then turn to my colleagues to add a bit more detail.

The Power Plus recommendation in the President's budget for last year and again in the 2017 budget begins to address this. It's by no means a full fix, but it begins to say let us accelerate challenges we have with mining families and their coverage as well as let's accelerate money from the Abandoned Mine Land funds to put miners to work in Reclamation projects.

So Power Plus is our step in that direction. It's by no means a full fix but within the context of the budget restraints that we're operating on, it's a step in that direction.

We would welcome an opportunity to work on a longer term fix with you because we understand the devastating situation that you face as many of these coal mines are closing down and people are losing their jobs.

Kris, do you want to add anything?

Ms. SARRI. I think the only thing to add is, as you mentioned, we also have mandatory money in our budget for United Mine Workers. And I'm happy to get back to you more on the record.

Senator CAPITO. When you say you have mandatory money in your budget, it has not been authorized, no?

Ms. SARRI. There's, kind of, there's the Power Plus Initiative and then there's some additional funding.

Senator CAPITO. But we are a long way, to get to where you are saying we need to be and to where, in reality, we are going to end up with there is just too much gap there to have any kind of satisfaction that we are actually going to help these coal miners and their families as they retire with their health and pension benefits.

But we will work together, hopefully, and be able to find a more satisfactory solution that is actually going to turn into the reality of the promises that were made that will be kept.

Thank you.

Secretary JEWELL. Thank you.

The CHAIRMAN. Senator Manchin?

Senator MANCHIN. Thank you.

Just following up on what Senator Capito has been speaking about because we are very much concerned. First of all, on the building up in Canaan Valley. When the Fish and Wildlife gave up the new building that we had on top of the mountain and they gave that to the STEM, to the academy, 4H youth academy. That was going to go for STEM research. That was a high priority, and Fish and Wildlife, you all, were very, very gracious in doing that for the highly needed STEM education.

With that we were promised that that would be a high priority on getting them the new Fish and Wildlife building that they so desperately need. I think that is where Senator Capito and I are both committed to helping on. But that was the whole crux of the meetings that we had had up there, Secretary Jewell. I would hope

that maybe you could follow up of the importance of getting that accomplished because you all were very gracious.

It was for a tremendous cause for STEM, for all the STEM education for children around the country, not just West Virginia. This is around the country bringing it to this setting. But we left them in a dilapidated situation because they were gracious enough to put the kids first.

We are pleading with you on that one to please move them up. I think it is a \$5 or \$6 million project which is a lot of money in West Virginia but here in DC it is just unnoticed.

Secretary JEWELL. Excuse me, it's a really challenging situation with the number of buildings that we have in dilapidated conditions from Indian schools to National Parks and wildlife refuges and not enough money to actually address it long-term. But I appreciate your advocacy for this project—

Senator MANCHIN. Yes, well I am just saying that was part of the dialog that went on and the commitments were made.

In a report dated December 2015, the Omnibus Consolidated Appropriations bill language, language was included noting concern that the Office of Surface Mining (OSM) is not working with important state partners in an effective manner. The language goes on to state OSM should reengage state partners before finalizing the stream buffer zone rule in order to achieve the best outcome possible.

OSM was directed to provide state with extensive data analysis relative to the environmental reviews as well as draft and final environmental impact statements. The only thing I would ask, Secretary, is why is the requested information on environmental reviews and impact statements relating to the stream buffer zone rule not yet been released?

Secretary JEWELL. We will have to get into the detail. My understanding is the rule has been released for comment and there are a number of states that are going through the details. If there's particular elements of that rule that you don't have access to or the states don't have access to, we will follow up on that, but we are now in a process where we look forward to input from the states and welcome that input as we finalize this rule.

Senator MANCHIN. My staff, if you do not mind, will get in contact with you and we will work with you very closely on that. But we need your attention on this. That is very important for us to be able to continue to do any business whatsoever.

Secretary JEWELL. Do you want to add to that?

Mr. CONNOR. Senator, I think you were referring to the language in the Omnibus that directed us to provide additional materials.

Senator MANCHIN. Correct. Correct.

Mr. CONNOR. And I think that material is being pulled together. And I do think it's by, within, a few weeks where we anticipate fulfilling that commitment under the Omnibus.

Senator MANCHIN. Thank you.

Mr. CONNOR. We'll work with your staff—

Senator MANCHIN. Okay, I appreciate that.

Mr. CONNOR. They understand that.

Senator MANCHIN. Also to reiterate the UMW, the Miners Protection Plan is a commitment made in 1946 because of the need of fos-

oil energy that made this country as great. Everybody has forgotten about what fossil has done. All we have been doing is demonizing it, and demonizing it since I have been here is ridiculous from the standpoint we want to move forward with technology but we cannot get this Administration to even take a good look at what technology is needed to use a resource that has made the country what we are today, the greatest power on Earth.

With that being said, there was a promise made in 1946 as far as the pension and their health benefits. That is about to go completely bankrupt, as we have talked about. The Miners Protection Plan has the excess AML monies going towards strengthening that so they will be able to get the commitment that was made to them. That is what we are asking for.

I do not know if that is in your evaluation but your support would be desperately needed because it is not taking away from the projects that are needed to be reclaimed. Most of the Appalachian, who have done the heavy lifting over all these years, is where it really is needed. We are not taking away from that, we are basically saying excess funds should be used to fulfill the commitment promises made. I would desperately ask you to maybe get up to speed on that and help us.

Secretary JEWELL. Yeah, we're happy to continue to work on that particularly through OSM. Also I will say the Department of Energy does continue to have research into carbon capture and sequestration for coal but I'm not familiar with their numbers—

Senator MANCHIN. I can tell you, trust me, we do not want to get down this road.

Secretary JEWELL. Okay.

Senator MANCHIN. Because they talk a good game, but have not done a darn thing. The bottom line is, as you know, the standards that they are wanting us to set are unattainable because the technology has not been developed to where it is under commercial load.

You know, we can do scrubbers, and we can do low Nox boilers, we can bag houses, and we have proven all that.

We do not even mandate there are other countries that are polluting the world, even use that, China, India or any of them. But yet we are pushing the cart of CO₂, capture of CO₂, which we have not even commercialized yet. And we won't go that extra step. So that is a whole other meeting to be had.

Secretary JEWELL. Fair enough.

Senator MANCHIN. Thank you.

The CHAIRMAN. Senator Cassidy, apparently I skipped over you in an effort to get down to Senator Capito. I apologize.

Senator CASSIDY. Senator Murkowski—

Senator CAPITO. That's because I went to Alaska with her, see, so I got to go ahead. [Laughter.]

Senator CASSIDY. No harm done, thank you.

The CHAIRMAN. Thank you.

Senator CASSIDY. And I got to hear my colleague speak, so that was worth it.

I gather at the outset, Senator Murkowski, you said the changes in revenue sharing were off the table, so I appreciate that.

I will begin, Madam Secretary with, kind of, that discussion. Craziest thing in the world. To paraphrase Ronald Reagan, it appears sometimes the left hand does not know what the left hand is doing.

On the tenth anniversary of Katrina I was in the Lower Ninth Ward, and of course the whole area had been devastated. You can still see, kind of, marks where the water was this high, all as a result of Katrina. Yes/No.

Louisiana began to lose its wetlands in 1928 when the Federal Government began to levy the Mississippi River primarily for the benefit of commerce inland. A commitment was made by a unanimous, almost unanimous, group of Senators, and House of Representatives, in order to begin to dedicate some of that offshore oil revenue to rebuild our wetlands.

I am sitting in the midst of this devastation and now the rebirth and the President is there to celebrate. And I said to the President, "Mr. President, do you know that your budget is trying to take away the money that Louisiana is constitutionally directed to use to rebuild our wetlands?" He looked over to Mr. McDonough sitting there and I said, "Mr. President, I do not expect you to know this level of detail, but this is what your budget is doing." He looked over at Mr. McDonough and said, "Is this true? It can't be true." He gave a little, kind of, well, we didn't know the state was going to use the money appropriately. I said, "Well, constitutionally we have to use it to rebuild our wetlands." And the President said, "We'll change that. I don't want this to happen again." Implicit in that is his understanding the only way to keep that from happening again is if we rebuild our wetlands. Low and behold, your budget takes away those dollars.

I appreciate the Chair's defense of it, but I would really like to know the kind of thought process associated with that because it seems to be, kind of, a recurring theme in your budgets. They, sort of, neglect Louisiana's needs and you will dispute that characterization, but it is clear it is a neglect of Louisiana's needs.

So let me just lay out some points.

In our state's master plan to restore and protect coastal Louisiana, there is about \$1.8 billion anticipated in offshore revenue sharing for this coastal restoration over the next ten years, \$3.5 billion over the next 20. The whole project will take \$50 billion. Louisiana is committing its own significant resources. But this, as you might guess, is a part of that.

The Coastal Climate Resilience Program referenced on page five of your testimony basically deprives those Gulf Coast communities of the resources and predictability that is currently given, so the contracts will not be left with the same sort of understanding. So again, I am not sure how your Department arrived at this.

By the way, it is not just me representing the State of Louisiana. The Environmental Defense Fund, the National Wildlife Federation, the National Audubon Society, the Lake Pontchartrain Basin Foundation stated, as a group, they are "Disappointed by the budget's proposed aversion of critically needed and currently dedicated funding for coastal Louisiana and the Mississippi River Delta."

By the way, Oxfam America, a group dedicated to fighting poverty, stated that, "America's Gulf Coast is home to some of our na-

tion's highest rates of poverty, greatest risk of natural hazards, like sea level rise, hurricanes, flooding and coastal land loss. Oxfam recognizes and appreciates efforts to promote more equitable sharing of offshore energy revenues and support new investments in the resilience of our coastal community."

All this, let me ask, the Federal Government's decision, let me just ask. Do you dispute that the Federal Government's effort to channel the Mississippi River for the benefit of the rest of the country's economy has had a negative impact upon our coastline? You might just dispute the facts, so I guess I would like to start there.

Secretary JEWELL. Let me start by saying that there's no question that Louisiana's wetlands have been impacted over the years by the channelization. I've been out and I've seen MR-GO and what's happened when that has been blocked off and the rebuilding of the Barrier's Islands, seen that personally.

I've been out to a lot of these coastal wetlands that are diminishing. I acknowledge that Louisiana has a significant problem with coastal erosion that is exacerbated by sea level rise, climate change and, of course, that was very much brought home to the world in Hurricanes Katrina and Rita on that region.

We believe that coastal communities like Louisiana do warrant additional support. We have recommended in this budget that the GOMESA program which distributes revenue sharing for four Gulf Coast states go to coastal Reclamation projects across the country including the Gulf Coast because—

Senator CASSIDY. Of course that would subtract substantially from what the area most vulnerable will receive.

Secretary JEWELL. Well I think it would, it's fair to say, having been also to the Arctic, that they are having significant problems with coastal erosion as well. And this was an effort on our part to say these are Federal waters in the Gulf Coast as well as, you know, offshore and other areas that belong to all Americans and the benefit of the revenue from that supports the Land and Water Conservation Fund. But also, we believe should support coastal resilience projects as opposed to just being limited to those four Gulf Coast states.

Senator CASSIDY. Except seeing that those areas are the ones most impacted, I mean, is there, if it affects their Federal lands. I will always point out that onshore, we get 37.5 but onshore Federal lands 50 percent of the revenue returns to the state. So there is already a decrease in the amount that the coastal states receive.

By the way, the way I would address that is to expand revenue sharing to the Atlantic and Arctic coast. If you did that then again you would have an increased amount of money to share with those coastal communities as well as the Land and Water Conservation Fund. It seems the better way to go.

I am over my time. I apologize. I went too long setting the context. I yield back.

The CHAIRMAN. Thank you, Senator Cassidy, I appreciate the expansion of the pie.

Senator Cantwell?

Senator CANTWELL. I'll pass to my colleague.

The CHAIRMAN. Senator Heinrich?

Senator HEINRICH. Thank you, Madam Chair, and thank you Ranking Member Cantwell.

Secretary Jewell, welcome.

I want to start out on the Valles Caldera National Preserve. In December 2014 Congress transferred management of the preserve to the National Park Service. One of the reasons that I fought so hard for that legislation was the opportunity that it presented for increased public access to what was a very limited situation before at the preserve for things like hunting, fishing, hiking, camping and other visitation.

Can you talk a little bit about whether any changes have been made since the Park Service took over management of that site and what we can look forward to in the future?

Secretary JEWELL. Thank you for the question and more importantly for your advocacy, not only of that monument designation, but also Organ Mountains Desert Peaks.

We have seen a substantial increase in visitation in the Rio Grande del Norte National Monument. I'm going to turn to my colleague, Kris, to see if you have specifics on the numbers and what might be in the budget for this coming year. But we will continue to do the master planning and determine what is appropriate with the anticipated visitation.

Kris, do you have a number?

Senator HEINRICH. Actually Secretary, that is something I want to ask about, the budgeting for the two landscape level BLM National Monuments. But specifically, in this case, I was hoping to get a sense for changes in management posture at Valles Caldera.

Secretary JEWELL. I'm sorry, you said Valles Caldera.

Senator HEINRICH. Under the Park Service.

Secretary JEWELL. And I—yes, yes, yes.

So I have been out to Valles Caldera, incredible resource. We did the handover to the National Park Service. Jorge, who was working in Interior and then running that, is now the Superintendent. Many of the staff members have been picked up by the Park Service and are working on a plan overall to determine what kind of visitor use facilities are appropriate there.

I will say that there's been incredible research in archeology, in the impact of climate change and wildfire in that region that I think will continue to tell a really important story, as well as, engaging with local pueblos, tribes that are interested in playing some role in bringing their history with this area to bear.

But specifically a dollar amount, Kris, do you know?

Ms. SARRI. We're continuing the investment made in 2016, so it's \$3.4 million overall in 2017.

Senator HEINRICH. Okay, great. Thank you.

Secretary JEWELL. Sorry for my miscue on location.

Senator HEINRICH. No, that's alright.

I want to move to Carlsbad Caverns. Last year both of the passenger elevators broke down at Carlsbad Caverns National Park and have now been inoperable for a number of months. This really puts a crimp in visitation to, sort of, the main attraction there.

That means the visitors have to take a fairly substantial hike back out of the caverns on foot, and it limits accessibility, in particular, for people with physical disabilities, and for small children.

Needless to say that is a major portion of Eddy County's economy with visitors buying gas, staying at local hotels and motels oftentimes when they visit both Carlsbad Caverns and White Sands National Monument which is not far away.

With spring break season coming up I think it is critical that we get these elevators back up and running so that Carlsbad, as an area, does not lose out on that critical recreational and visitation spending.

Can you tell us a little bit about what happened to the elevators, what the Park Service is doing to fix them, and when we might see at least one of them available for visitor use again?

Secretary JEWELL. Well in a nutshell this is a good indication of what we're struggling with, with deferred maintenance across the National Parks with \$12 billion of backlog in both transportation and non-transportation assets.

In the case of Carlsbad, which I have been to, those elevators are over 40 years old and they've been working hard to keep them going. But ultimately they break down. The estimated cost to replace the works there is over a half a million dollars. So right now the National Park Service is looking to retrofit the existing freight elevators to make them safe for passengers to use, and the goal is to have this work around in place sometime early to the middle of next month for the reasons you expressed. But it's another indication of the challenges we have when we've got this deferred maintenance.

Thank you.

Senator HEINRICH. Great, I appreciate that.

I want to say a couple of other things, just quickly, before we go.

I want to thank you for the Administration's proposal to create a hard rock royalty fee.

You know, we have obviously experienced incredible challenges with the Gold King Mines bill but there are literally thousands of abandoned mines all across the West that are leaking acid, water and heavy metals into our streams and rivers. That is a direct threat to the Western economy. It hampers downstream users, be that industry, be that recreation, irrigated agriculture, etcetera.

I also want to thank you for the efforts in this budget to facilitate access to the Sabinoso wilderness, a BLM wilderness area in New Mexico, that I believe is the only unit in the United States that you cannot currently legally access because there is no easement, no fee simple land, no ability to get into it by the public. The folks up in the Las Vegas area are incredibly excited at the prospect of that, and I want to thank Interior for its work there.

Secretary JEWELL. Thank you.

The CHAIRMAN. Thank you, Senator Heinrich.

Senator Barrasso?

Senator BARRASSO. Thank you, Madam Chairman.

Madam Secretary, over the last year you have repeatedly questioned whether American taxpayers are receiving a fair return on coal leased by the Federal Government. Your agency is now in the process of considering whether to increase royalty rates on coal. I am having a difficult time understanding why the agency is taking this step because over the last three years the demand for Federal coal has collapsed.

Since 2012, the amount of coal that the Federal Government has leased is down 95 percent, so that amount is down 95 percent. Prior to coming to the Department of the Interior you served as the Chief Executive Officer of REI, a retailer of sporting goods. I know you are familiar with basic economics. Economics 101 says you should not raise prices on a product when demand for that product is collapsing. So given the demand for Federal coal is down by 95 percent do you really believe it is reasonable to increase the royalty rates on coal?

Secretary JEWELL. Well Senator, the Government Accountability Office and our own Inspector General questioned whether we were getting an adequate return for taxpayers on the Federal coal program. This launch of a programmatic EIS broadly will take a look at some of those issues.

Our Office of Natural Resources Revenue has done some work regarding royalties. The rates that the taxpayers receive for coal is very low and I recognize that the industry is struggling right now for a variety of reasons, not the least of which is the conversion to natural gas for electricity generation. But we have been criticized roundly for not generating a fair return for taxpayers, not having any competition in the leasing process for coal and that has resulted in relatively small cost paid by coal producers for the coal in the ground that belongs to all Americans. So this really has been in response to criticism that we have received over multiple years.

Senator BARRASSO. But doesn't it seem to you that if the demand goes to zero that the revenue coming in is going to go to zero as well for the Government? So in fact, you are actually going to get less revenue, higher royalty rates and you are going to reduce demand. The revenue generated from coal is going to continue to go down.

This is why the environmental extremists have aggressively lobbied you to raise royalty rates on coal, to kill coal. They know it will kill coal production. So I think if you are really willing to be honest with Congress, you would admit that here today.

Secretary JEWELL. Well Senator, I think that the, you know, as a business person you recognize that there is a cost to your business and you factor all of those costs in and that determines whether or not you go forward.

There's no question that the cost that coal companies have been paying for coal is extremely low, less than a dollar a ton. We've had many coal leases that have been offered for sale that have had no bidders on them whatsoever. So I think that to conflate the two is not necessarily accurate.

There are phenomenal differences going on in the energy sector across this country. Switching to natural gas, switching to renewables, the cost of coal royalty is only one component in the overall cost that if I was a mining company I would be looking at.

So, I think, we are responding to criticism that we've had that's been very fair with regard to the coal program. And as Senator Cantwell said in her remarks, we will be looking at this thoroughly over the coming three years or so.

Senator BARRASSO. I am delighted that the Administration will be ending in a lot less than three years.

I would like to turn to the BLM's proposed rule of natural gas flaring and venting. According to the BLM's rule, the primary means to avoid flaring gas from oil wells is to capture, transport and process the gas for sale using the same technologies that are used for natural gas wells.

The rule goes on to explain in areas where the rate of gas production is outpacing the infrastructure capacity that is existing. In areas where capture and processing infrastructure has not yet been built, the rule notes that the cost to install natural gas gathering lines is not cheap. It costs us, according to the rule, the cost of installing equipment and pipelines to capture and transport can be up to \$400,000 to \$1 million per mile for the pipeline. I think BLM's proposed rule does, actually, a very good job describing the problem that oil and gas producers face.

Then BLM's solution completely misses the mark. Rather than taking steps to expedite the permitting of these natural gas gathering lines on Federal land, the rule simply raises cost to producers and does so at a time when natural gas sells at bargain basement prices. BLM's goal seems to be to reduce flaring by eliminating oil and gas production on Federal lands. So if the BLM is sincere about helping producers reduce flaring, which is the goal that the BLM states, why doesn't the proposed rule expedite the permitting of these gas gathering lines on Federal lands?

Secretary JEWELL. Well, may I answer?

The CHAIRMAN. Yes, please go ahead.

Secretary JEWELL. Thank you.

First, thank you for acknowledging that we're trying to work very hard and we're also paying attention to states that have venting and flaring rules and that are doing work along this line, including your home state of Wyoming.

I think it's a very fair question to say, as we look at addressing the venting and flaring, can we expedite permitting? And we will look into that with the BLM providing it runs along state lands. Oftentimes, as you know in the West, we've got a checkerboard pattern which complicates rights of way over long distances. But I think that is fair.

I also will say that the practice of venting and flaring the gas associated with oil production is something that, I think, your state and we do not feel is acceptable over the long run that should be captured.

So we are in a comment period on this. We look forward to taking those kinds of comments and to the extent that expediting permitting can be done to address that, I think that's a very fair point.

Senator BARRASSO. Madam Chairman, my time has expired. Thank you.

The CHAIRMAN. Senator Wyden?

Senator WYDEN.. Thank you very much, Madam Chair.

Secretary Jewell, it is good to have you here. Last week I was getting all out and about through rural Oregon, and what I saw was an awful lot of economic hurt people just walking on a tight-rope balancing the food bill against the shelter bill and they are working two or three jobs and are just trying to catch up.

So what I want to talk to you a little bit about is rural economics and ways in which we can pump some more economic opportunity

in those communities for good paying jobs in Ag and Forestry and a variety of areas.

One that I have been particularly struck by is getting people to work together so they do not end up in Federal Court. I think the best recent example is the sage grouse where we were looking at having another major Endangered Species Act listing. Under your leadership a lot of Democrats and Republicans got together and we avoided that listing.

We are doing that same kind of work in forestry, as you know, the militants at one point were headed from the Malheur Refuge up to John Day. And one of the county commissioners said, you know, we've got a pretty good partnership here. We've got a collaboration with stewardship contracting and we have tripled the harvest here. These are not my words. These are words of a county commissioner. So getting people to work together is key.

Secure Rural Schools has been a lifeline, and that is a bill that was written in this room on a bipartisan basis.

Recreation is a third area. I saw that with our tour of the seven wonders and we are working on a backpack full of fresh ideas Democrats and Republicans can support to build the outdoor recreation economy.

The list just keeps going. Tapping our green energy resources, biomass, a huge opportunity in my state that is both good forestry policy and helping to create jobs as well.

Finally right at the top of this year's priority list should be to eliminate this text book example of government inefficiency that we call fire borrowing which is this absurd process of shorting prevention, having lots of fires and then raiding the prevention fund in order to put it out.

So those are some on my list of things that we can work on in rural economies and to a great extent, build on what we are already doing.

Tell the Committee while we have colleagues of both parties here, what do you think are the next steps, in your view, for building on this progress? Next steps for getting people to work together, for example, collaboratives, this kind of thing.

Secretary JEWELL. Well thank you, Senator Wyden.

You know, as you point out, there's lots of opportunities to work together. And I think it's also fair to say that the work around the greater sage grouse, the support of the National Resources Conservation Service at USDA, the incredible work that took place in Harney County which actually had a significant impact, I think, on the reasons why people in the county generally did not support the rhetoric of those that illegally took over the refuge, is an example of how we can work more cooperatively together.

I do think that there are opportunities with a wildland fire fix which Senator Murkowski talked about addressing particularly next month. You have, all three of you, actually have worked very hard on this. That is essential because if we could stop borrowing against the burned area rehab money and the prevention of fire money, we could put more money into those local communities for thinning whether it goes to biomass or whether it goes to sawmills.

And I think that is also very important to rural economies.

But as you point out embracing outdoor recreation and tourism is also a great opportunity to drive additional revenue into these communities as Senator Heinrich was referencing in the monument designations within his state and the investments there.

So I think working closer together than we ever have before, learning the lessons we did from the greater sage grouse effort that we had collaboratively and providing our folks on the ground with the kinds of tools and support to work locally with communities is a great way to move forward.

The USDA's National Resources Conservation Service, our own efforts in the BLM and the Fish and Wildlife Service, the state efforts, the collaboration that we've seen, particularly over the last two, three years is something that we can learn from in the future.

Senator WYDEN.. Thank you very much.

The CHAIRMAN. Senator Lee?

Senator LEE. Thank you, Madam Chair.

Thank you, Madam Secretary, for being with us today.

I would like to ask you just a few questions about the Antiquities Act. Based on conversations I have had with you in the past and based on other statements you have made elsewhere in the past, I know you placed a lot of emphasis on the importance of local engagement during the process leading up to any monument designation under the Antiquities Act, and I appreciate that.

For instance, after designating the Berryessa Snow Mountains in California as a national monument you said, "Today's action honors more than a decade of work by the local community to protect this beautiful landscape." After designating the Browns Canyon National Monument in Colorado you repeated the same sentiment saying, "Today's designation follows more than a decade of work by the local community to protect this spectacular area."

Now it is widely reported, Secretary Jewell, that President Obama is considering designating a nearly two-million-acre national monument in San Juan County, Utah that is in the South-eastern corner of my state, the so called Bears Ears National Monument. Much of this land, as you know, is owned by the Federal Government and managed by the Department of the Interior.

So since we both believe in local consultation or we believe that that ought to be a prerequisite to anything that culminates in a monument designation under the Antiquities Act, I was just wanted to point out that there is not one elected official, not a single one, representing San Juan County, Utah, who supports the creation of a national monument under the Antiquities Act.

Specifically I want to point out that on September 1st of last year the San Juan County Board of Commissioners passed a resolution stating, "Be it resolved the San Juan County Commissioners strongly oppose the unilateral use of the Antiquities Act to designate a national monument within San Juan County and instead supports locally driven land use planning."

On February 10th of this year the entire Utah Federal delegation wrote a letter to President Obama plainly stating, "We do not support the use of the Antiquities Act within our community and ask that the Administration withdraw any plans to do so."

Then just yesterday Utah Governor Gary Herbert wrote a letter to the President in which he said, "As evidenced by opposition from

virtually every elected county, State and Federal official, the State of Utah strongly opposes any unilateral monument designation within our state."

Now this of course does not mean that the people of Utah or the people in San Juan County, in particular, do not care about the land or about protecting it. Quite the contrary, elected officials throughout Utah, including and especially those in San Juan County, have been very supportive of a three-year intensive effort involving the Public Lands Initiative. And there is a lot of support for protecting the land in this way.

So let me just start by asking you, do you still believe that collaboration and local support is a necessary condition precedent that ought to precede any designation of a monument under the Antiquities Act?

Secretary JEWELL. Well Senator, the Antiquities Act is a very important tool that Presidents have had since Theodore Roosevelt. It's been used, I would argue, sparingly and carefully. And so, I have no ability to change the President's capacities to act in his own way as it relates to that.

I will say that he's used it 22 times in his Administration. In every case we have had engagement on the ground in the communities to understand everybody's opinions. I've been to many of those meetings. They have never been unanimous, but they have also always provided a good balance.

And so——

Senator LEE. You have at least had widespread public participation. You have at least had widespread, a lot of support, even if it is not unanimous.

Secretary JEWELL. Well we've had public participation. I don't know how one defines widespread, but I will say this——

Senator LEE. You have had some. You had some. There has been some widespread participation.

Secretary JEWELL. We have had some participation in the case of Utah. We have been invited by the tribes to go out there. There's a number of tribes that are very interested in protecting an area that you reference that has tremendous archeological, anthropological and cultural significance to them.

They have met with me in my office. I have actually asked that they come over and meet with the Utah delegation, particularly Congressman Bishop, because of his public lands initiatives work.

I've met with Congressman Bishop and Chaffetz on that. We had two meetings scheduled over the last couple of weeks, both of which they canceled because of votes which I understand.

I will also say that what started off as an effort that seemed to be very collaborative is now fracturing somewhat so there is a lot of interest in protecting lands that people thought in the Public Lands Initiative would have greater protections than how that initial language is coming out.

So I'll continue to meet with the delegation on this. And as we have interest to move additional protections in places like San Juan County, we will be engaging with people in those communities.

Senator LEE. Okay, so I am out of time but before I stop I just want to make sure. Will you commit to consulting with Utah's local

communities, Governor and our congressional delegation before anyone makes a final decision?

Secretary JEWELL. Well to be clear, I can't commit to anything with regard to the Antiquities Act because that is a tool of the President of the United States.

I will commit that we will go out and spend time within the community and take input from the community. That is something that we have done every time, and we will continue to do that.

Senator LEE. Okay. I appreciate that and I appreciate knowing that everywhere else the President has used this he has had some local buy in and we don't have that here. So I appreciate your commitment on that.

Thank you, Madam Secretary.

The CHAIRMAN. Senator Hirono?

Senator HIRONO. Thank you, Madam Chair.

Secretary Jewell, I wanted to take a moment to thank you for the extraordinary commitment in protecting Hawaii's natural and cultural treasures in the President's budget using the Land and Water Conservation Fund.

The Hakalau Forest National Wildlife Refuge and Hawaii Volcanoes National Park are the number one and number two land acquisition projects for the U.S. Fish and Wildlife Service and the National Park Service, respectively, in Fiscal Year 2017. This effort builds upon last year's commitment to fund certain land acquisitions highlighted in Hawaii's Island Forests at Risk proposal which is very important to Hawaii.

Additionally the funding your budget provides for Honouliuli National Monument which, by the way, was a monument that was very much supported by Hawaii, our communities and the political leadership there, including the delegation. It is critical in getting things up and running so that the unique stories of our nation's past, and Honouliuli was a place of interment, can be told.

Your attention to the unique needs in Hawaii is appreciated. Thank you for coming to Hawaii for that dedication of Honouliuli, and I want to continue working with you and your Department in amassing these initiatives.

Finally, as you know, Hawaii is the state most impacted by our nation's compact of free association. I look forward to working with the Department in the coming year to ensure the compact impact is adequately addressed which currently it is not. Our country has a responsibility to meet our obligations under the compact with Palau, Micronesia and the Marshall Islands.

I want to turn to the Regional Biosecurity Plan for Micronesia and Hawaii. I recently led a letter with my colleagues from the Hawaii delegation as well as Congresswoman Bordallo of Guam and Congressman Sablan to the National Invasive Species Council (NISC), Co-Chairs of which you are one. This letter requested information on NISC's plan to implement recommendations made within the Regional Biosecurity Plan, RBP, for Micronesia and Hawaii and was published in March 2015. The Office of Insular Affairs' budget justification includes support for proposed action within the RBP and mentions increasing the Coral Reef and Natural Resources budget by \$1 million over Fiscal Year '16 levels to augment

control and eradication efforts for the Coconut Rhinoceros Beetle and the Little Fire Ant.

This is a positive step. However, can you speak a bit on any additional resources the Department of the Interior intends to commit to implement the RBP's recommendation to manage and mitigate invasive species across the Pacific, an issue that is of such concern to Hawaii since we are very much impacted by invasive species?

Secretary JEWELL. Thank you, Senator.

I'm going to talk at a high level and then turn it to Kris to give you specifics on numbers.

Invasive species are a huge problem across the landscape, and it's particularly acute in the Islands. I was working with young people on eradication of the Coconut Rhinoceros Beetle, obviously the Brown Tree Snake is a big issue. Hawaii is kind of ground zero for invasive species.

Senator HIRONO. Yes.

Secretary JEWELL. So we are committed to chipping away at it. There's not nearly enough money to do it but we are continuing to prioritize including, what's the acronym rapid response?

Ms. SARRI. Early—

Secretary JEWELL. Early detection and rapid response (EDRR) process so that we can nip these things in the bud before they become a problem.

But Kris, do you have specifics on the budget number?

Ms. SARRI. Senator, thank you for the question. And earlier this week we actually announced a framework for early detection and rapid response. The President's budget has a request of \$1.5 million to help with EDRR projects and that could go to the Regional Biosecurity Effort.

Senator HIRONO. While that is a positive step, that \$1.5 million does not go far enough, that is for sure.

Turning to the rapid Ohia death. Native forests on Hawaii Island are losing a keystone species at an alarming rate and that is the Native Ohia tree. Of course when the Native Ohia trees disappear then it really negatively impacts our watershed.

A pathogen which causes these trees to wilt and die within days of showing symptoms has affected approximately 34,000 of our total 810,000 acres of Ohia Forest across Hawaii Island. That is four percent of our Native Ohia Forest, slightly smaller than the size of Washington, DC, and it is more than twice the impacted area observed in 2014. This problem is rapidly escalating, and right now the pathogen is contained to Hawaii Island, but the potential to impact our Native Ohia Forests across the state is there.

I know that in the USGS Fiscal Year 2017 budget there is mention of rapid Ohia death and the agency's plan to develop models and genetic essays to address the pathogen. I also know that the USGS invasive species research budget is, as you mentioned, receiving additional sums.

I am sorry, Madam Chair, may I continue? I am over my time. I think I need, maybe, another ten seconds, 15 seconds.

The CHAIRMAN. Okay.

Senator HIRONO. The addition of your Department-wide budget provides \$2.4 million over Fiscal Year '16 levels for early detection and rapid response. Given the emerging threat that the rapid Ohia

death is posing to our native forests on Hawaii Island and the potential to spread to the remaining islands, could these additional research and EDRR funds be used to help address the rapid Ohia death in Hawaii, in particular?

Secretary JEWELL. And I'll have to get back to you with that question. As we pointed out earlier there's just nowhere near enough money to address the invasive species challenge. So whether we could take a limited amount more and put it over there I don't know. But thanks for putting it on the radar, and we'll get back to you.

Senator HIRONO. Thank you, and we will continue our dialog.

Secretary JEWELL. Okay.

Senator HIRONO. Thank you, Madam Chair.

The CHAIRMAN. Senator Daines?

Senator DAINES. Thank you, Madam Chair.

First of all, Secretary Jewell, I want to commend you and your Department for recognizing the value of the Land and Water Conservation Fund, both to our country as well as to Montana. Some of these importantly locally supported projects are ranked high in your budget proposal, and I will do all I can to support robust funding through LWCF throughout this process.

I also want to commend your Department for recommending a slightly, slightly higher level of funding for the Bureau of Reclamation Rural Water projects. Senator Franken earlier, I think, requested that we re-look at that. I still think the recommended level is too low. It is well below the enacted level. As we chat with tribes, particularly, as well as rural communities across Montana, it is very, very important and it would certainly help Congress in the appropriations process, speaking as a member of the Appropriations Committee, if a department prioritized this funding better in its budget.

But I want to transition to the issue, I think, Senator Barrasso brought up on coal leasing. In Montana we do see the moratorium on coal leasing as a direct assault on our state. Our state relies on production of coal, including Federal coal, to support our state's essential services. Montana tribes like the Crow Tribe rely on coal production to fund its tribal essential services. Coal creates good paying Union and Tribal jobs and also, very importantly, affordable electricity prices.

Yet this Administration seems committed to taking that lifeline away combined with the EPA power plan. Now with this moratorium on the coal leasing program, it is creating a significant problem for a Montanan factor crisis at 7,000 jobs, \$500 million of economic activity and \$140 million in tax revenues that go to our schools, our teachers, our infrastructure. In fact, the University of Montana put out a study that suggests this would be the most significant economic impact to hit Montana in over 30 years.

Now I support ensuring the taxpayers receive their fair share of the revenues. I am not here to argue or make that point. However, we must be careful to not make producing Federal coal completely uneconomical, a reality that is dangerously close under this Administration's halt on coal leasing and if not inevitable if our states and our tribes are left out of the process.

So the question is without discussing the merits of the environmental review and the moratorium itself, having done some due diligence I have been told that up to two years is very generous. It is realistic, and it is a well-placed timeline to complete a programmatic review. So given that why do we think three years is necessary for this programmatic review?

Secretary JEWELL. Well thank you very much for the question.

If we could do a programmatic environmental impact statement in two years that would be terrific. The pause on new leases on coal, with certain exceptions, only applies until the programmatic EIS is completed. So if it can be done faster we will certainly do it faster, but based on our experience for programmatic EISs, they do take, typically, around three years.

Can I also say that we did have, we do have, about 20 years of supply already under lease based on current production levels. And as production level comes down those may last longer. And we did put exceptions in place so that no mine should close, no plant should close. There's emergency exceptions to do that as well as grandfathering in projects that had a signed record of decision that were close to the end.

So in terms of the reference to coal jobs and ongoing coal production, we do not believe there will be an impact. And we've made provisions for those individual circumstances where there might be.

Senator DAINES. On the three-year question, could you commit to us though that the review will not take any longer than three years?

Without some kind of accountability or commitment here, who is to say it is not going to take even longer than three years? I mean it looks like you have got a commitment saying it will not exceed three years, and I think arguably it could be two years.

Secretary JEWELL. Well sir, my position will end here in 11 months, so I can't commit to my successor on a timeframe. But I can reassure you that we will complete this as quickly as we possibly can. My goal is to have an interim report out that clearly defines the scope and gets us on a clear path forward with a timeline by the time I'm out of this job.

Senator DAINES. Let me ask, and I recognize there is a time domain here on the limits about what happens after January 2017, but what are the consequences? Who is held accountable if it goes three years and one day? What happens if you go past the timeline?

I came from being the private sector 20 years. If you miss your timelines, there is a big issue with that. What happens if they go beyond three years?

Secretary JEWELL. The pause is tied to getting the PEIS done. If it's done quicker, the pause ends. If it goes longer, the pause continues.

And if you look at the times that this has been done before and we modeled our pause on the, what had happened in prior administrations. In some cases, it took something like six or seven years. In other cases, it may have been shorter.

So three years is not a fixed timeline. It's tied to the programmatic EIS. So the more cooperation we get, the quicker we'll

get it done. And my intent is to get a clear timeline done before I'm finished.

Senator DAINES. My last question is are you seeking the advice and analysis of impacted states and the tribes, like Montana, like Wyoming, like the Crow, like the Navajo, like the Hopi and other interested stakeholders regarding Federal mineral policies that are related to royalties and leasing? My concern is to shorten the timeline and we talked about it, but are we getting the input?

Secretary JEWELL. Yeah.

Senator DAINES. From those who will be affected the most, the tribes and the states?

Secretary JEWELL. May I answer quickly, Madam Chairman?

The CHAIRMAN. Quickly.

Secretary JEWELL. We held six listening sessions which included input from states, from tribes, from individuals, coal producers, stakeholders on the ground, before we even decided to do a PEIS. So we did those, mostly in coal company—country, one in Washington, DC, one in Billings, Denver, Farmington, New Mexico and Gillette, Wyoming, to get input which really advised this process.

So we will continue that openness. This is a very open process. We'll make sure that all of those voices are heard in this process.

Senator DAINES. Alright.

Thank you, Secretary.

Secretary JEWELL. Thank you.

The CHAIRMAN. Senator King?

Senator KING. Thank you, Madam Chair and I want to thank you again for inviting me to Alaska last weekend. It was a wonderful trip. I note that we have Alaskan glacial water today, and my only concern is with the retreat of the glaciers I do not know whether to drink it or send it to the Smithsonian. But it is wonderful water. Thank you for that. We had a great trip. I have enjoyed telling people in Maine about driving on a river. That was a new experience for me.

Secretary Jewell, a quick question on the budget. The budget figures that are in this budget that you have submitted correspond to the budget caps that were negotiated two years ago?

Secretary JEWELL. They do.

Senator KING. So it is all within that. There's no additional spending that assumes a new revenue or anything? It is within those caps that were negotiated, the President and the leadership?

Ms. SARRI. The discretionary number is within the budget deal.

Senator KING. Okay.

Second, Secretary Jewell, I want to really thank you and thank the National Park Service for the work on the online park pass. If you will remember I made myself obnoxious at a meeting about a year ago which my friends tell me is a skill that I have, and your Department reacted. There is a pilot program being announced in the next week or so for online National Park passes. I think it is going to work. Interestingly enough, one of the first pilots is at Acadia in Maine. I thank you for that. Hopefully that will increase revenues and access to the park, so I really appreciate the quick response and very thoughtful one on that issue.

On the backlog issue, this is important because it has become a, kind of, political lightning rod. How is the backlog built? Who de-

terminated? Where did the numbers come from park by park? First question.

Secretary JEWELL. Kris, do you want to answer that?

Ms. SARRI. Our Bureaus all—both, whether it's Parks or Fish and Wildlife Service, do surveys across the parks and their properties and develop a prioritized list in terms of backlogs and deferred maintenance that they have.

Senator KING. Is there any third party validation or is this—I'm not trying to use pejorative terms but where does backlog end and wish list start? In other words, how do you define what the elements are and is there anybody else that looks at it and says, oh yes, that really is a maintenance backlog as opposed to something a park manager might like to have? Do you see my question?

Ms. SARRI. Yes, I do.

I think I'd probably want to get a little bit back to you more on the record after having a chance to talk with the Bureaus.

But they go through a pretty thorough vetting process that is ranked against criteria so they can understand, kind of, what their needs are with parks.

I mean, unfortunately we have buildings that we have to maintain to certain health and safety standards, and so they're always looking at those type of measures.

Senator KING. Would the backlog, if I looked at it, be prioritized by seriousness and health and safety versus other criteria?

Ms. SARRI. Yes, they develop a prioritized list. And like I said, I think with the Bureaus, they look at them somewhat differently. So I'd like to get back to you more on the record to make sure I'm providing accurate information.

Senator KING. And what percentage of the backlog is roads as opposed to buildings, sewer systems, those kinds of things?

Secretary JEWELL. It's about half.

Senator KING. About half is roads.

Secretary JEWELL. About half of it is roads, right, which typically is largely taken care of through transportation.

Senator KING. Well that was what I was going to ask, is there any help on the way from the Highway bill that was passed this past winter?

Secretary JEWELL. There is help on the way. The passage of the Highway bill is enormously important to roads, not only in National Parks, but Indian reservations and so on, as well.

What that bill does not do is specific large projects, like for example, the Memorial Bridge which in and of itself is \$250 million. There is not money earmarked for the National Park Service which has that bridge and is responsible for its maintenance through that so that would require separate supporter legislation to address.

Senator KING. Okay.

But there is a significance so the backlog is roughly 50 percent roads and there will be significant assistance coming so it is not quite as daunting as it originally—

Secretary JEWELL. No, that's correct. It's still a \$6 billion number, roughly \$6 billion is daunting in terms of the facilities relative to the Park Service budget, but the roads are helped through this.

Senator KING. Just for the record, this is not a case of the Park Service not asking for this money, it is a case of it not being appropriated by an organization which will remain nameless.

Secretary JEWELL. That's correct.

Senator KING. Thank you.

I just want to end by thanking you for the work with the National Parks and particularly as we enter this 100th year. I understand that part of the President's budget talks about or focuses on the Centennial and the ability to raise private funds. Could you end my time on that part of this budget?

Secretary JEWELL. Madam Chairman, do you mind if I just do this quickly?

The CHAIRMAN. Go ahead.

Secretary JEWELL. So we have in the discretionary part of the budget, a significant increase. I think it's a \$20 million increase in the matching fund program to \$30 or \$35 million. And then in addition to that, we have \$100 million in a mandatory fund which would require a congressional action to be a match with private philanthropy.

The National Park Foundation just announced a, I think \$350 million capital campaign. They are well on their way, over \$200 million raised as we announced another generous grant from David Rubenstein to fix up the Lincoln Memorial. He has been extraordinarily generous. But there's a lot of individuals out there that would like to provide support but they also would like to see the Federal Government have skin in the game.

So there is an increase on the discretionary side of the budget and recommended in the mandatory portion that would increase that Centennial match and drive additional philanthropy that is very helpful to the National Park Service.

Senator KING. Thank you very much.

Secretary JEWELL. Thank you.

Senator KING. Thank you, Madam Chair.

The CHAIRMAN. Senator Gardner?

Senator GARDNER. Thank you, Madam Chair. And thank you, Secretary Jewell, for your time and testimony today.

I want to thank you as well for your participation in making the celebration of Rocky Mountain National Park's Centennial a very great year. Last year, 2015, we set record attendance again at Rocky Mountain. I think had a 21 percent increase in attendance in 2015 over the prior year. So people continue to enjoy Rocky Mountain National Park and all that it has to offer in year 2016 and beyond. Thank you for making that special.

I also want to thank you for your work at the Colowyo Mine this past year. It is a significant challenge, as you know. You held a meeting in Northwestern Colorado, meeting with local participants to understand the unfortunate outcome of the court decision out there. It is too bad that it went to that point, but the fact is I appreciate you working with local communities and others to make that mine continuing to be a part of the future of Northwestern Colorado and also your diligence, continued diligence, on Trapper Mine. I thank you. I know there is some work still to be cut out there but, you know Western Colorado when we have coal layoffs and natural gas cutbacks, and the last thing it needs is another

double whammy of Federally-induced setbacks. So thank you very much for your work with the Colowyo and Trapper Mines.

I also want to, again, commend you for your work on the Land and Water Conservation Fund. I have been part of an effort to make sure that it is permanently authorized. There were a couple of projects in Colorado, like the Cascade Cottages project, Rocky Mountain National Park, within Rocky Mountain National Park and the Sanberg acquisition near the Black Canyon of the Gunnison National Park that did not get funded in the Department's budget this year.

I would just like to know what we can do to try to make sure that that is funded somehow, if you will consider LWCF that is unspent or how you will consider these projects in the future. I certainly would just advocate that those projects be considered. I do not know if you would like to comment on those at all or?

Secretary JEWELL. Well I'll just say that we know they're very important projects. We've had several others referenced today that people would like support for.

I want to thank you for your support for LWCF. It's bipartisan support. The Chair and Ranking Member of the Committee have recognized that. We would like to see full funding and then a lot of these items, the list is very long, would get done. And certainly we can pass along your interest in those two projects to the Park Service as it evaluates any money that might become available, but it's very tough each year because there's never enough money for the really, very important projects that are out there.

Senator GARDNER. Thank you.

Returning to the Arkansas Valley Conduit, Mr. Connor and I have had many conversations about the Arkansas Valley Conduit. I just want to talk about its importance.

This was first authorized in the 1960s under President Kennedy. Over the past several years we have put \$1 million or \$2 million behind it. I believe the commitment now is \$3 million, \$2 million for Fiscal Year 2016, \$3 million for Fiscal Year 2017. I thank you for your commitment to this project. Will the Department of the Interior, Bureau of Reclamation continue to make the funding commitments necessary to get construction on this critical project underway?

Mr. CONNOR. Senator, thank you for the question, and thank you for your support for moving forward with the Arkansas Valley Conduit. It's been very helpful as we've tried to provide a base level of funding at slightly higher levels than we had previously. And you've seen that now with our '17 budget and the additional resources we put in '16 through this Reclamation spending plan.

I think we want to maintain a certain level of funding to complete the preconstruction work that needs to be done, and then I think we need to work with the sponsors, the community, local communities, on how we will continue to support moving forward with construction but look for other resources that exist.

I know they have reached out to the state and secured a loan to begin funding. We have a Natural Resource Investment Center that we created last year that we've just hired a new Executive Director for. This is a high priority for us to put together a comprehensive plan to look for, not just the next couple of years, but

more long-term, how we can work with the communities and get this project funded.

Senator GARDNER. Thanks, Mr. Connor.

I know my office has been in communication with the Bureau of Reclamation regarding potential revisions to the current funding mechanism for the project so that we can maximize the use of miscellaneous revenues when funding the project. Will you commit to continue working with us for the long-term funding mechanism in the project so that we can make sure we are using the optimum use of the miscellaneous revenues?

Mr. CONNOR. Absolutely. That's a very good plan that creates more budget space, so it's going to be a number of ideas like that. But we'll continue to work with you.

Senator GARDNER. Thank you.

A couple of quick questions.

I know Senator Barrasso touched briefly on the question of the BLM venting and flaring rule. Do you know if you will be perhaps extending the public comment period on that rule, on the venting and flaring rule at BLM?

Secretary JEWELL. Well I think at this point we intend to stick with the schedule the way it is.

Senator GARDNER. You have given, excuse me, you have given it. That is correct, I believe, right?

Secretary JEWELL. Yes.

Senator GARDNER. Okay.

Secretary JEWELL. Well, I'm not sure. Do you know if we, did we extend the period?

Mr. CONNOR. I'm not sure—

Secretary JEWELL. On the venting and flaring?

Yes, we'll have to get back to you. I'm sorry.

Senator GARDNER. Okay.

Secretary JEWELL. It's probably in my notebook here. I can find it, yes.

Senator GARDNER. I think it is 60 days to comment. Of course it is a very complex rule, and we hope that you would consider extending it if that is something that you could get back to us. That would be great.

Senator GARDNER. Just a final question here. Are you aware of any considerations for land acquisitions or land designations through the Antiquity Act or other acts that are currently being discussed? If so, what and when, particularly as it relates to Colorado?

Secretary JEWELL. I don't have a list of items that, you know, are lined up to be Antiquities Act. That's obviously something that rests with the President.

There are a number of groups and individuals and elected officials that bring things to our attention where they would like to see a designation.

Senator GARDNER. But you are unaware of any consideration being made on specific locations in Colorado?

Secretary JEWELL. I can't think of any. We did the Browns Canyon, obviously.

Senator GARDNER. Right.

Secretary JEWELL. That was important. I can't think of any others off the top of my head.

Senator GARDNER. Well if you would just, perhaps, go back and talk to staff and relay to us if there are considerations that are underway and designations in Colorado, that would be great.

Thank you.

Secretary JEWELL. Okay.

The CHAIRMAN. Senator Cantwell?

Senator CANTWELL. Thank you, Madam Chair.

I wanted to go back to the coal issue. I have listened with interest to my colleagues' questions, and certainly I do not think there is anything in Federal statute that mandates that the Federal Government lease a certain amount of coal off of Federal lands. I do not think there is any mandate there.

I definitely think that there is a mandate that we make sure that we do an environmental impact statement, and the fact that we have not done one in 37 years is quite astounding to me. But I think I learned a lot about our Minerals Management Agency after the Deepwater Horizon program and a lot of holes in our process. The fact that we have not done something here in 37 years, I think, is another issue of the bright light of day being shown on the agency and making sure we do things in an orderly fashion. So as I said in my opening statement, I applaud you for taking this action here. I think it is critically important.

Another related issue is the same scrutiny that I think that we need in the state reclamation programs and the issue of their acceptance of self-bonding. You know, we have had our own impacts in Washington State and backyards in Tacoma, Washington, after they had been dug up or left when somebody went bankrupt and literally walked off the job. I am very concerned with how states are applying these self-bonding issues. How do we know they even have the resources? So now we are having these bankruptcy court issues and the law does not say we must accept self-bonds, and these self-bondings are not working. How are we making sure that the taxpayer is not left on the hook? Do you think these self-bondings are working or do they present a problem and a risk to the taxpayer?

Secretary JEWELL. I think there's a very significant potential problem and risk to the taxpayer with the pretty high profile bankruptcies that have taken place recently with coal companies.

I'll say that there's different ways that states handle bonding. Largely in the Appalachian states they have companies pay into a bond fund, like an insurance policy. And so they have the capacity to cover when some companies go bankrupt. In other states, like Wyoming, for example, they allow self-bonding. And with some of these recent bankruptcies we have seen a negotiation between the state and the company that the Office of Surface Mining Reclamation Enforcement find of concern with regard to what, we believe, the liability is to clean up the mines relative to the amount that's been accepted by the state.

So we have issued ten-day notices which is a tool that we have to put the state on notice that we believe that what they have accepted, in terms of self-bonding, is inadequate relative to the clean-up liability. And that has been done now, not just in Wyoming, but

in multiple states as we've seen an acceleration of bankruptcies with some of the large companies, Arch, Alpha and Peabody, or not Peabody, but Arch and Alpha so far. I will say even in Appalachia where they have more of an insurance plan, there is no question that there's very significant reclamation liability that we are concerned with there. So this is a very topical issue and something that is getting a lot of our attention.

Senator CANTWELL. Well, I hope so. I mean because they would not have even gotten a permit in the first place. They are getting it based on a reclamation bond that is not worth anything. They would not even have gotten the permit, right, if you knew up front that the value was zero?

Secretary JEWELL. They wouldn't have been self-bonded. They would have been required to come up with an outside bond in order to cover their liability.

Senator CANTWELL. Well the more I learn about this, the more I think representing the taxpayer here—and actually I did not hear my colleague say that they did not want the taxpayer represented. So I think these are key issues, making sure that the public is not left with a cleanup of pollution as coal companies go bankrupt and making sure that the taxpayer also gets a fair share is part of our responsibility of leasing on Federal lands. There is nothing that says in the law that we have to lease this amount?

Secretary JEWELL. Correct.

Senator CANTWELL. Right. But it certainly says we need to pay for and make sure that the environment is protected as we do so, so I think it is astounding to find out that 40 percent of our coal comes off of these Federal lands and yet we do not even have an updated system to make sure the taxpayer is protected. I appreciate your leadership on that. Is there something we should be doing right now in clarifying about the self-bonds and making sure that there are real resources behind protecting the taxpayer?

Secretary JEWELL. Well I think that your scrutiny, transparency of the situation and increased visibility is very important for taxpayers to understand.

I'll also say that we are taking action through the tools that we have with the Office of Surface Mining. There are surety bonding companies that are willing to sign up and provide bonds for these companies that are in bankruptcy. These are things that certainly it changes the economics because you do pay for these bonds but we believe that those alternatives should absolutely be considered. And we'd like to have good cooperation with the states as we go through this so that neither the states nor the Federal Government and the taxpayers get to end up holding the bag, as we do, with abandoned mine lands on hard rock mining where we don't have this capacity. Hence, huge problems in the hard rock area that the taxpayer right now is the only place to go to clean up.

Senator CANTWELL. Thank you, Madam Chair.

Secretary JEWELL. Thank you.

The CHAIRMAN. Senator Portman?

Senator PORTMAN. Thank you, Madam Chair. I appreciate it.

Secretary Jewell, thanks for being before us again. I want to talk to you about a couple of topics quickly.

First, of course, is the National Parks. This is the Centennial year, as my colleague from Maine talked about. In fact, on August 25th we celebrate the 100th year anniversary of our National Parks. We are working on Centennial legislation, as you know, with you and with others. Ranking Member Cantwell, Chairman Murkowski and I introduced an amendment to the energy bill that talks about how we can properly celebrate the centennial, including providing additional resources for the National Parks going forward. I appreciate working with Senator Cantwell on that legislation.

There has been discussion about whether or not there really is enough interest out there in the private sector to have a centennial match. As you know this is something that I have been working on since my days at OMB, going back a decade. I strongly believe that this is a way for us to not only incentivize the private sector to do more but specifically to get them more engaged and involved with the parks and to really leverage that private sector help.

So I would ask you this question. Over the last couple years Congress has appropriated a little bit of money into the Centennial Challenge. We do not have an authorization for it, but the appropriators have gone ahead and made some commitments, which I appreciate. In FY'15 it was \$10 million. In FY'16 it was \$15 million. So that is \$25 million. What was the match from the private entities over the past two years with these appropriations for the Centennial Challenge?

Secretary JEWELL. I'll have to look up the exact number.

Secretary JEWELL. We don't have it but the fact is that the National Park Foundation has just announced its Centennial Capital Campaign at \$350 million, and they have already raised well over \$250 million. Certainly, that has been inspired by support from Congress and the Federal Government willing to put skin in the game.

We can look specifically at which of those projects were matched, but I can guarantee you they were more than a dollar for dollar match on multiple.

Senator PORTMAN. They were more than a dollar for dollar. They were more like two to one or more.

Secretary JEWELL. Yes.

Senator PORTMAN. In the private sector. So the answer is an unequivocal, yes. They were matched.

Secretary JEWELL. Yes.

Senator PORTMAN. In fact, they were overmatched. Also, as you say, you took away my thunder there, the National Parks Foundation has just started their \$350 million campaign which is non-Federal, private donations. So I think there is a tremendous appetite out there.

I know you agree with me on that having been from the private sector yourself and probably your former company would be one of those companies interested in being involved and engaged in helping our parks.

Secretary JEWELL. They've already committed \$5 million.

Senator PORTMAN. I like that. I am sure they would be doing even more if you were still at the head.

I just think this is a great opportunity for us, and I think if we take too long to get this out there and get this moving, we are going to miss this opportunity.

So I encourage you to continue to work with us. The Administration has a proposal out there that is very expensive, well over \$1 billion, but not paid for. We are going to have to pay for it here. We want to have something that is practical, that can get done, but really help the parks and can leverage that private sector money. I know you are, again, personally committed to that and I look forward to working with you on that going forward.

The second topic I have for you is about the Office of Surface Mining Reclamation Enforcement's Stream Protection Rule. This is one you might want to talk about less eagerly than the national parks, but it is one that concerns me a lot. It concerns me because my sense is you are not working with the local stakeholders. I hear this from my State of Ohio where, as you know, we have a considerable interest in this potential change in terms of the Stream Protection Rules and what impacts it is going to have on jobs.

The Office of Surface Mining themselves talk about this having a cost of over \$15 million annual compliance cost, coal production being reduced dramatically, 1.9 million tons a year, 41 to 590 jobs annually. These numbers are a lot lower, as you know, than those by independent sources which were even worse for Ohio. According to the communication I am getting from my folks in the State of Ohio, there has not been the kind of communication you would expect with state and operating agencies regarding the rule.

Given so many states have publicly expressed disappointment with the lack of engagement so far, I would ask you will OSM, the Office of Surface Mining, re-engage with the states, such as Ohio, in the rulemaking process to ensure any final rule is practical and reasonable?

Secretary JEWELL. Senator, the OSM is engaging the states at this point, and now that the rule is out there and the states are reviewing it we'd welcome that input. And we absolutely would welcome specific input from the State of Ohio. I know that it was very important to get a rule out and across the finish line. States were engaged early, that input was taken, a rule was put on the table, and we'd welcome that input and you certainly have my commitment to do that.

Senator PORTMAN. Okay.

We were told OSM has not reached out proactively to the Ohio Department of Natural Resources. I do believe you are going to see a formal request coming from them very soon for you to engage with them as you are required to do under the Omnibus. As you know in December, there was a law passed that says you have to re-engage with states in a "meaningful manner prior to the final rulemaking if requested by the states." You are going to get that request from Ohio, I will tell you. If states request more information, how are you going to carry out in a meaningful manner providing the documents and data in a timely fashion? So I assume that you are going to comply with that legislation.

Secretary JEWELL. Certainly we will comply with the legislation. I also want to say that on December 2, 2015 the Ohio Department of Natural Resources did have a telephone conference with Joe

Pizarchik, who heads the Office of Surface Mining. That was with the Ohio Division of Mineral Resources Management Chief, Lanny Erdos. So we have had those meetings and we will continue to have those meetings and certainly comply with all legislation.

Senator PORTMAN. Well they are going to request additional meetings at even a higher level, as I understand it. They are in town this week, and I appreciate your commitment to do so.

Thank you, Madam Chair.

The CHAIRMAN. Senator Flake?

Senator FLAKE. Thank you, Madam Chair.

As you know, Secretary Jewell, water is never far from the mind of anybody in Arizona. I want to thank the Bureau of Reclamation, particularly Commissioner Lopez and his staff, for the efforts to support the Colorado River Basin Contingency Drought Plan.

Additionally, I have been pleased to see efforts throughout the basin to implement the Colorado River System Conservation Pilot Program. This is a priority, obviously, for Arizona. I commend the Bureau of Reclamation also for dedicating \$5 million of their Fiscal Year 2016 appropriation to expand the program.

Can you give us an update, you or Mr. Connor, of the status of the system conservation program including the number of projects funded and the effect on the reservoir levels?

Mr. CONNOR. Yes, Senator.

Thank you for the question and thanks to the State of Arizona. I think they'd be, Reclamation would be, equally complementary. This has been a very productive partnership, particularly with the lower basin states.

So far of the \$11 million that was allocated for the System Conservation Pilot in '15, \$8.25 million was allocated for lower basin projects. I think they've selected six projects, and those are projected to save about 64,000 acre feet of water when they're completed. The balance of that funding will go for upper basin projects and then, as you stated, based on the success and the quality of the project so far, reclamation allocated another \$5 million toward that effort.

Overall, you know, this is in context to an MOU where the states are looking at, you know, close to a million acre feet over the next five plus years. And given the projections in the Colorado River Basin, that's something that they need to be pursuing. The challenges keep increasing in the basin. The projections that were developed in 2008 are already no longer valid. The challenges are greatly increasing as far as reservoir levels in Lake Mead. So we're going to have to build upon this System Conservation Pilot.

Senator FLAKE. Well thanks, Mr. Connor.

You will recollect that on June 1st, I asked you to follow-up on several issues surrounding the ability to withdraw and transport stored groundwater in Arizona having these arrangements in place, obviously we will be able to access millions of acre feet of water that we have stored underground. It is critical to our long-term planning. I again want to thank the Bureau for their recent work with the Central Arizona project on these wheeling arrangements.

Can you give us some kind of update on the status of other discussions with tribal governments that are required to complete these arrangements?

Mr. CONNOR. I'm not up to speed on those recent discussions, so I'll be happy to get back to you on the record for that.

Senator FLAKE. Okay, thank you.

Secretary JEWELL. Secretary Jewell, I am told that Senator Lee talked about national monuments and designation and the importance of consultations with local and state governments. In this regard I just want to add my voice to his that when these measures are taken that these consultations are made prior to.

It is extremely important for states like Arizona, Utah and others where the impacts on the economic viability of these local communities is really impacted.

Secretary JEWELL. As I said to Senator Lee, in all the monument designations that the President has done there has been outreach within local communities and meetings held on the ground in local communities, and we're committed to continuing to do that.

Senator FLAKE. Thank you, Madam Chair.

The CHAIRMAN. Senator Hoeven?

Senator HOEVEN. Thank you, Madam Chairman.

Thank you, Secretary, for appearing before our Committee here today.

The first question I would like to ask is in regard to the Stream Protection Rule or the Stream Buffer Rule.

Assistant Secretary Janice Schneider has agreed to come to North Dakota to actually get input and to see on the ground what our industry is doing and how they are managing water and why the Stream Buffer Rule is problematic. We would like for her to come, she originally wanted to come in the winter, in January or February, where you would not be able to see, really, the ramifications of the rule. I just want to make sure that we get her to come in say, May or June, when she will actually be able to assess the impact, and we would like your commitment that you would agree to that.

Secretary JEWELL. She's very happy to travel. So let us know when the best time of the year is, and we'll work that into her schedule.

Senator HOEVEN. Thank you, Madam Secretary.

The other thing is keeping the comment period open so that the input that she gets from the industry, I mean, being there, seeing it and then getting good on the ground input is important. And it is important that the comment period is open to accommodate that.

Secretary JEWELL. Well Senator, we're really committed to getting this rule done during the time we're here. And so we would love to have people work within the comment deadlines that are out there to the extent possible. We certainly consider increases to the comment period but I will say that I would encourage people that have comments to get those comments in early.

Senator HOEVEN. Certainly. But she is going to get input while she is out there and that just makes sense. If you truly want good input, she will have an opportunity to do that. We would try to accommodate getting her out there in May so we are not talking about dragging this out, but it is important that we are able to comment based on her experience out there.

Secretary JEWELL. Well I think she'd get out there as soon as possible within the comment period. If her visit doesn't coincide

within the context of the comment period I can't commit to an extension, but I will certainly make her aware of that concern.

And we do take input into account after comment periods close. I mean, it certainly continues to influence us in any of these rules before we come out with a final.

Senator HOEVEN. We will try to make that work so she can be there on the ground within the comment period.

Secretary JEWELL. That would be great.

Senator HOEVEN. If you would make the same effort for us. Are you willing to do that?

Secretary JEWELL. If I can work it into my schedule. Mine is a little tougher than Janice's but I will—

Senator HOEVEN. No, no, I mean in terms of getting her—

Secretary JEWELL. Oh yes, absolutely, yes.

Senator HOEVEN. The time frame open. We will try to work so that we can match the two.

Secretary JEWELL. Yes.

Senator HOEVEN. Okay, thanks.

The second thing I wanted to ask about is there are two coal leases. One that is pending back to 2011, that is with BNI Coal, and then there is another one that has been pending since 2013. Two coal leases, and the second one is with North American Coal.

Now BLM has considered both these grandfathered relative to the three-year moratorium. So I just want your assurances that you will work with BLM to continue to see if we can get agreement on those coal leases as they have said that they would work to do and not make them subject to the three-year moratorium.

Secretary JEWELL. If they were on the BLM's list which we published on the website as being grandfathered, then the BLM has every intention of going through with that and so do I.

Senator HOEVEN. Good, Okay, good.

My final question relates to the BLM permitting pilot project. Now this is legislation I think Senator Barrasso was a prime sponsor, I think the Chairman, myself, a number of us were on this bill, and it passed.

It is the BLM Permitting Pilot Project. Essentially what it allowed, and you may recall, but just in case, it allowed that applications for permits to drill were backed up and taking a long time to get approval. So essentially what this pilot project allowed is that BLM could increase the fee that they charge for an APD from \$6,500 per APD to \$9,500. And the idea was that additional \$3,000 per permit was to go to getting the permit done more quickly. But instead the BLM in DC has decreased general fund appropriation out to the BLM Office. So they have offset the funding that comes from these drilling permit applications.

That money was supposed to go to expedite the process, and instead it has been offset so that the permittee is getting charged but they are not getting the benefit that they were supposed to get from the higher fee, from the \$9,500 instead of \$6,500. This is important because that was not the intent of the legislation. I would ask that you would look into this and make sure that the intent of that legislation is honored.

Secretary JEWELL. Yes, the characterization you're giving is different than my understanding. So let us get back and maybe drill into specifically what you're asking and get you a solid response.

I know that we are very committed to streamlining the way we do our permitting, to doing increased automation which is part of the budget request.

We've also requested fees from the industry on shore to help offset the cost that we actually incur in both permitting and in inspections.

So if we can get back to you with a little more detail on that I think that would be better than me trying to respond right now.

Senator HOEVEN. That would be fine.

Secretary JEWELL. Thank you.

Senator HOEVEN. And I appreciate your looking into it.

Senator HOEVEN. Thank you, Madam Secretary.

Secretary JEWELL. Thank you.

Senator HOEVEN. Thank you, Madam Chairman.

The CHAIRMAN. Thank you, Senator Hoeven.

Secretary, I mentioned in my opening my concern about the King Cove road and the fact that today is 26 months to the day that you have rejected this ten mile, one lane, graveled, non-commercial use road. We keep count of that because it is important to the people of that region. The other thing that we keep count of is how many Medevacs have occurred from King Cove since the rejection of the road.

Last year I asked you if you were aware how many Medevacs had been required since the time you rejected the road. I would ask you the question again this morning, if you are aware as to how many Medevacs, both Coast Guard and non-Coast Guard, have actually gone into King Cove since December 23rd of 2013?

Secretary JEWELL. I don't have the number, Senator, but I am sure that it is dozens of them.

The CHAIRMAN. The number is 39 total, 14 by the Coast Guard which is unacceptable by anyone's standards.

I understand that Interior commissioned a study that was completed last year by the Army Corps. You again looked at the use of marine vessel helicopter or perhaps building a new airport, alternatives, all of which have been reviewed in the past. They have been deemed impractical, unaffordable, particularly when you put it up against, again, a one lane, gravel, non-commercial use road. So the question to you this morning is whether or not you have publicly released that report and whether the people of King Cove were actually consulted as that core report was developed?

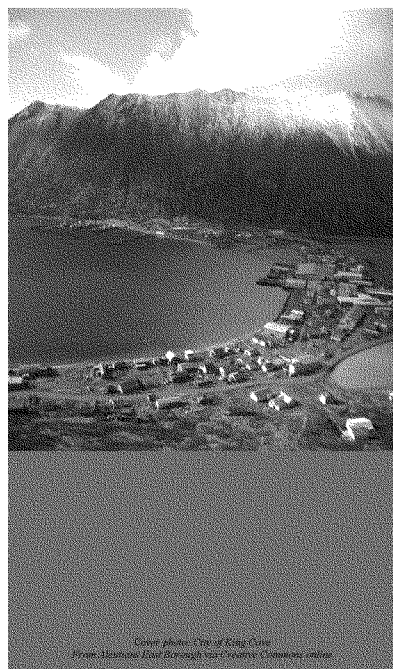
Secretary JEWELL. The team is telling me we have not released the report publicly.

The CHAIRMAN. Will you?

Secretary JEWELL. I don't see any reason why not.

The CHAIRMAN. Okay. We would look forward to the release of that.

[The information referred to follows:]



King Cove-Cold Bay: **Assessment of** **Non-Road Alternatives**

Aleutians East Borough, Alaska

FINAL

June 18, 2015

Prepared for:

U.S. Army Corps of Engineers, Alaska District

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King Cove-Cold Bay Assessment of Non-Road Alternatives

June 2015

Executive Summary

King Cove, Alaska, population 800, is located in the Aleutians East Borough (AEB) in southwest Alaska. The area is remote and located where the North Pacific Ocean meets the Bering Sea. The area is known for harsh weather; high winds, rough seas, and fog or persistent clouds occur frequently. These conditions are not necessarily unusual for other small, rural communities in Alaska, but King Cove is different in one key respect: it lies 18 miles from the Cold Bay Airport, which has a 10,000-foot jet-capable runway originally built by the military and now maintained as an emergency landing location on the great circle routes between North America and Asia. Several plane crashes, many harrowing tales, and near misses trying to get patients evacuated to Anchorage for medical emergencies by small plane or by boat from King Cove to Cold Bay have highlighted the difficulty of travel in the area, particularly under emergency circumstances. The Cold Bay Airport is close, but sometimes inaccessible. King Cove, the borough, and Alaska's Congressional delegation have pushed Congress for a road connection through the Izembek National Wildlife Refuge and Izembek Wilderness along a narrow isthmus that separates the rich tidal marshes of the Bering Sea and Pacific Ocean water. It is an area that is critical habitat for wildlife, including almost the entire global population of black brant. The U.S. Department of the Interior (DOI) has decided against the road option. This document reviewed past studies and the latest thinking on potential non-road alternatives. It is designed to filter past work on non-road-access alternatives and present the most promising in each of three non-road transportation modes: marine vessel, fixed-wing aircraft, and helicopter.

This *Assessment of Non-Road Alternatives* for medical evacuation (medevac) from King Cove to Cold Bay and on to Anchorage examines three modes of transportation as selected by DOI: (1) ice-capable marine vessel, (2) fixed-wing aircraft/new airport, and (3) helicopter/heliport. Variations within each alternative address the location of the facilities and, to a lesser extent, type of equipment and facilities. This assessment provides a high-level overview of the three non-road-access options and does not provide a recommendation, but presents conceptual information on the locations, costs, risks, and dependability of each. This report does not identify the actual steps needed for implementing a selected alternative such as additional analysis under the National Environmental Policy Act or similar regulation.

The proposed marine vessel is a 150-foot ferry capable of carrying vehicles and passengers year-round in expected seas (based on wave records over a 5-year time period), including capability of moving through bay ice 12 inches thick (OASIS Environmental, Inc. 2003). The vessel would require modifications at the Cold Bay dock and a new dock on the King Cove side, where it would reside. The vessel port could include a rock breakwater, depending on the location chosen. It is assumed the ferry would operate for general use, not just medevac use, and would transport passengers, cargo, and vehicles to and from Cold Bay but would be available for medevac trips to Cold Bay,

where patients would transfer to a medevac flight or commercial flight to Anchorage. This would be necessary when flights were not possible in and out of the King Cove Airport.

The identified airport location is north of King Cove and north of mountainous terrain in an area with few obstructions, at the end of the existing King Cove road system. It could be designed for service by small jet (longer, paved runway) or turbo-prop aircraft (shorter, gravel runway). Implementation of this alternative is assumed to mean closure of the existing King Cove Airport, which is located in mountainous area where turbulence is common and terrain hazards compound weather issues. Medevac flights would respond when called from Unalaska (190 miles away) or Anchorage (620 miles), and take patients from the new airport directly to Anchorage.

The helicopter option assumes a helicopter would be leased by a government entity and based at a new heliport, with hangar and lighting, located at King Cove, on the King Cove road system, or at a new location on the southern edge of Cold Bay (the water body). The helicopter would transport patients to the Cold Bay Airport, where they would transfer to a medevac flight or commercial flight to Anchorage.

The table below summarizes life-cycle costs and operating factors, such as medevac time, risks to the project, and dependability, for the alternatives addressed in this document. Capital and operations and maintenance costs assume a 75-year life cycle. The net present value (NPV) for each alternative incorporated conceptual-level construction cost estimates and 75-year operating costs in 2015 dollars. The document provides greater detail.

Table ES-1. Summary of Costs and Operating Factors

	Marine 150-ft ice-capable monohull ferry			Airport New airport located NW of Mt. Dutton		Helicopter Leased helicopter and crew with dedicated heliport			
	1a NE Cold Bay Ferry	1b Lenard Harbor Ferry	1c Direct Ferry (KC- CB)	2a 5,000-ft Runway (Learjet)	2b 3,500-ft Runway (King Air)	3a NE Cold Bay Heliport	3b Lenard Harbor Heliport	3c Peninsula Heliport	3d King Cove Heliport
Life-cycle Costs (75 years)									
Capital Cost (\$ millions)	41.8	29.9	39.0	84.0	47.0	2.8	2.8	28.3	2.8
Operations and Maintenance Cost (\$)	872,300	925,600	1.14 M	674,700	223,300	2.34 M	2.25 M	2.28 M	2.19 M
Net Present Value (\$ millions)	65.7	56.7	71.9	97.0	49.3	78.3	75.3	99.1	73.6
Operating Factors									
Medevac Time (hrs)	3.5	3.7	5.0	2.4	3.0	3.1	2.6	2.7	2.1
Risk Score	2.4	2.4	2.5	2.5	2.6	2.5	2.5	2.5	2.2
Annual Dependability	99.9%	99.9%	99.6%	94.9%	94.9%	82.6%	67.5%	67.5%	70%

Notes:

All costs are shown in 2015 dollars. See main document for explanation of cost estimates.

Medevac time is the elapsed travel time between the City of King Cove and Ted Stevens Anchorage International Airport. See main document for further explanation.

Risk score compiles multiple risk factors on a 1–4 scale (1=low, 2=moderate, 3=serious, 4=high) and averages them. Risk assessment is qualitative. Scoring allows for deriving the average and is not meant to imply precision in quantifying risk. See main document for explanation of methods.

Dependability shown is based largely on wind data thresholds. Other factors affect dependability and may differ between modes of travel. See main document for explanation.

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Acronyms and Abbreviations

AEB	Aleutians East Borough
AIP	Airport Improvement Program
ANC	Ted Stevens Anchorage International Airport
DOT&PF	Alaska Department of Transportation and Public Facilities
EIS	Environmental impact statement
FAA	Federal Aviation Administration
IFR	Instrument Flight Rules
ILS	Instrument Landing System
KUCB	Unalaska Community Broadcasting
NPV	Net present value
NWR	National Wildlife Refuge
O&M	Operations and maintenance
RNAV	Area Navigation
SRE	Snow removal equipment
USCG	U.S. Coast Guard
VFR	Visual Flight Rules

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1 Introduction

1.1 Background

The cities of King Cove and Cold Bay in southwestern Alaska lie 18 miles apart; see Figure 1. King Cove's population is about 800 year-round and expands to approximately 1,300 when the Peter Pan Seafoods processing plant is operating at full capacity.¹ While King Cove has the larger population, Cold Bay has the larger airport—an instrument-capable airport with a paved runway more than 10,000 feet long (one of the longest in the state) and a crosswind runway. It is a former military airport kept in service primarily as an emergency landing location on the long-haul great circle route between North American airport hubs and Asian airport hubs.

The communities of King Cove and Cold Bay are separated not only by miles. They are also separated:

- By the water body of Cold Bay, which is more protected than the open ocean, but still known for severe winds and waves, and infrequently for ice.
- By mountainous terrain, particularly near the City of King Cove and its small airport.
- By an isthmus 3 miles wide separating the head of Cold Bay, which opens to the Pacific Ocean, from the Bering Sea.
- By protected lands of the Izembek National Wildlife Refuge (NWR) and Izembek Wilderness on the isthmus and by the Alaska Peninsula NWR along the shoreline, as established by Congress.

King Cove, the Aleutians East Borough (AEB), and Alaska's Congressional delegation have worked since the 1980s to convince Congress, the U.S. Department of the Interior, and USFWS to allow and fund a road between the communities, principally for medical evacuation (medevac).

Congress, in the Omnibus Land Management Act of 2009, directed that the Department of the Interior should examine a road in an Environmental Impact Statement (EIS) and use the EIS to determine whether a land exchange to allow road access would be in the public interest of the people of the United States. A December 23, 2013, Record of Decision signed by Secretary of the Interior Sally Jewell found it would not be in the overall public interest because "construction of a road through the Izembek National Wildlife Refuge would lead to significant degradation of irreplaceable ecological resources that would not be offset by the protection of other land to be received under an exchange...(and)... because reasonable and viable transportation alternatives exist to meet the important health and safety needs of the people of King Cove."² Secretary Jewell received a request for reconsideration of the decision. After further consultation and visiting the site, Secretary Jewell signed a letter dated August 13, 2014, stating the Department of Interior would stand by its decision and would not re-open the record of decision. At the same time, she reiterated commitment to continuing to work with Alaskans "to evaluate and develop other

¹ The Peter Pan Seafoods processing plant in King Cove is the largest capacity salmon processor in the state, and it processes Bering Sea crab catches and multiple other species.

² Record of Decision, December 23, 2013.



transportation improvements for the residents of King Cove and Cold Bay." This document is a result of that request.

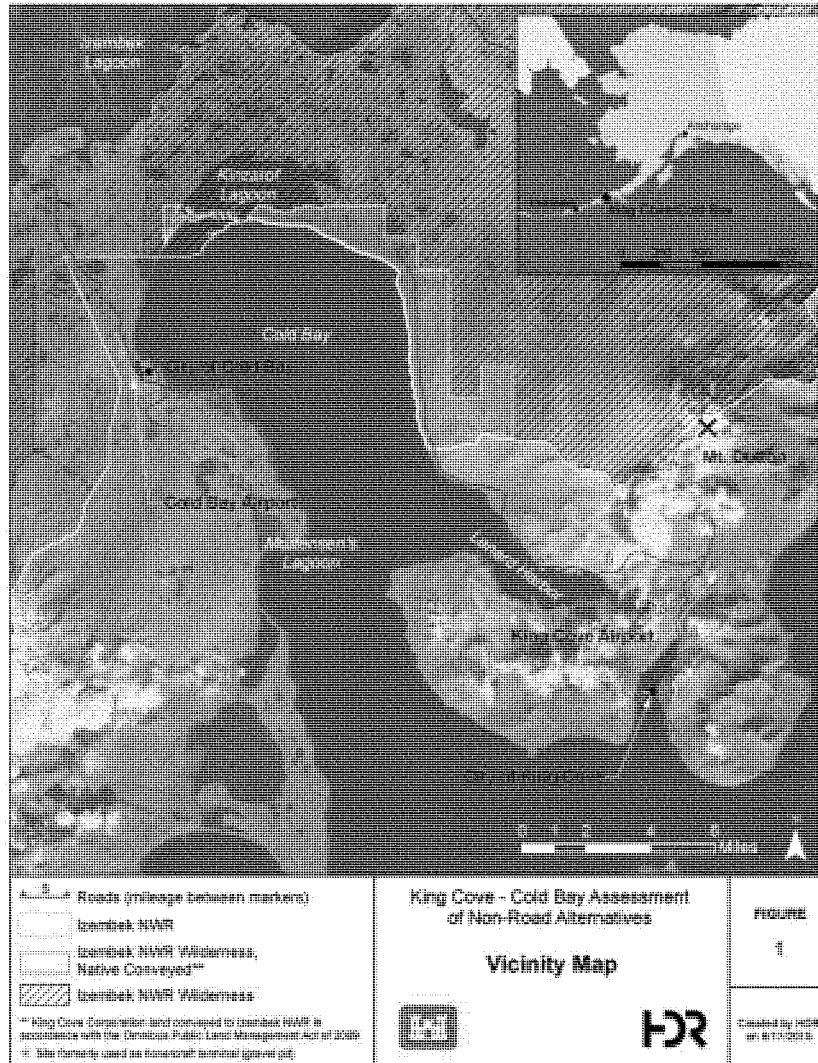


Figure 1. Vicinity Map

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Secretary Jewell requested assistance from the United States Army Corps of Engineers, Alaska District, to examine three non-road access alternatives in 2015. This document is the result of that request. It is designed to filter past work on non-road access alternatives and present the most promising in each of three non-road transportation modes:

- Marine vessel
- Fixed-wing aircraft
- Helicopter

1.2 Transportation Challenges

King Cove is an ocean-oriented community. However, there is no dependable and publicly available marine connection between King Cove and Cold Bay. The state-operated Alaska Marine Highway System ferry stops twice a month at King Cove and Cold Bay, May to October, with the only other marine connection consisting of fishing vessels that can sometimes be chartered between King Cove and Cold Bay. Fishing vessels can make the trip in most weather conditions but are not equipped to handle passengers, especially medevac passengers. Fishing vessels often are out of port on the fishing grounds or undergoing maintenance while in port. They must travel approximately 27 nautical miles from King Cove to Cold Bay, with roughly half that distance in open seas.

Another shortcoming in the marine connection between King Cove and Cold Bay is the inadequate infrastructure in place for passengers to disembark from vessels at the existing Cold Bay Dock. Passengers or medical evacuees must travel up a 20-foot ladder from the boat to reach the wharf deck. This can be dangerous, particularly for those who are not in good physical shape, especially when sea conditions cause the vessel to move with respect to the ladder used for disembarking. The state ferry that occasionally uses the dock during the summer has provisions for a ramp to allow vehicle and passenger transfer between the ferry and the dock. Sea and wind conditions at any time of year could preclude safe operation without a ramp similar to the state ferry at the Cold Bay Dock in its current configuration.

Regarding air transportation, the existing King Cove Airport lies north of town in a mountainous area. It has a single gravel runway 3,500 feet long. Terrain limits the available approaches and, in many wind conditions, creates turbulence that can cause unsafe flying conditions. Clouds also may form over or adjacent to the mountains, obscuring the runway. Scheduled air service to and from Cold Bay and other communities exists, but because of delays and cancellations due to wind, cloud cover, or snow and icing conditions compounded by winter darkness and mountainous terrain, scheduled air service is not considered to be as reliable as most air service elsewhere in the Lower 48. The scope of this assessment did not allow for analysis of other Alaska airports that have constraints similar to those attributed to King Cove.

Regarding the safety, reliability, and convenience of air travel, the Alaska Department of Transportation and Public Facilities (DOT&PF) published the 1994 *Alaska Intermodal Transportation Plan*, which noted:

1. A significant portion of the scheduled flights in and out of King Cove were cancelled due to unsafe flying conditions.
2. In addition to documented air crashes in King Cove, numerous incidents and near-misses occurred during operations around the airport, associated principally with weather.
3. Canceled flights due to unsafe flying conditions caused medical complications and fatalities for patients awaiting evacuation from King Cove.

Improvements to navigation aids installed at the airport or to the configuration of the existing airport would not adequately address these problems.

The AEB was the recipient of a \$37.5 million federal appropriation for improving transportation between King Cove and Cold Bay and for improving medical care in King Cove. AEB purchased a \$9 million hovercraft and constructed a landing for the hovercraft along the northeastern shore of Cold Bay. The vessel, the 93-foot *Suna-X*, operated from a landing site in Lenard Harbor while a road was under construction to the intended northeast landing site, and it had a landing site across the bay just south of the existing Cold Bay Dock. This allowed for a 14-mile hovercraft trip that could be completed in 17 minutes under favorable conditions. The hovercraft functioned as the primary marine connection between King Cove and Cold Bay and successfully evacuated 30 medical patients out of King Cove to the Cold Bay Airport from 2007 to 2010. Ultimately, however, local officials determined it was too costly to operate and could not operate in waves above 6 feet or winds above 30 miles per hour. The hovercraft was inoperable 30 percent of the time due to a combination of maintenance down-time and weather conditions beyond its operational capabilities.

The AEB moved the hovercraft to Akutan Island, where it ferried mail and seafood processing workers to a new airport on Akun Island about 6 miles away; however, the operation still required a large annual subsidy and was shut down in February 2014 to be replaced with helicopter service. In an April 2, 2014, article published by KUCB (Unalaska Community Broadcasting), AEB Administrator Rick Gifford was quoted as saying that the hovercraft service was unsustainable, costing about \$3 million per year to operate. Further, he said that the helicopter service was cheaper, costing about \$2 million per year, but not cheap enough. Gifford indicated that the AEB continues to look for access to the Akutan/Akun airport that it can support for the long term—perhaps via a ferry—but the capital costs of such an alternative are a major obstacle.

This document examines options for using the new road for access to a new marine terminal, a new airport, or a new heliport north of Mount Dutton, at the end of the road. Variations on these alternatives also are considered as ways to solve the long-standing problem of unreliable access across the bay or to Anchorage, primarily for medevac purposes.

2 Objectives, Scope of Work, and Methods

The U.S. Department of the Interior, through the U.S. Fish and Wildlife Service, has requested the U.S. Army Corps of Engineers, Alaska District, to assess three transportation modes that would not include a road through Izembek NWR. For each alternative, the assessment includes:

- **Description:** A narrative description of each alternative assessed, built off of multiple past studies but configured uniquely based on current conditions and understanding of the need, including a road that has been extended northward to a favorable airport and vessel launching area on the northeast side of the bay near the southern boundary of Izembek NWR.
- **Costs:** Costs of construction in projected 2015 dollars, and costs of maintaining the alternative over 75 years (standard annual operations and maintenance [O&M]). Replacement costs including major overhauls and replacement of system components are not included.
- **Risks:** Risks related to permitting, funding, and operating each alternative. Although each is given a numerical score, this is considered a qualitative risk assessment, a tool to help examine risks but not a determinant of which alternative is best overall.
- **Dependability:** The dependability of each alternative, defined as “the average percentage of time a minimum of four King Cove residents can successfully be transported to Cold Bay on a monthly basis for a one-year period.” The document presents the amount of time in each month of a typical year that each alternative would be expected to operate as required, based primarily on monthly weather records.

Methods for assessing costs, risks, and dependability are further described below.

This document provides up-to-date information about marine, fixed-wing, and helicopter aircraft transportation modes. It specifically makes no recommendation regarding which mode might be most favorable, but presents high-level data to further the discussion.

2.1 Method Used to Assess Costs

Estimates of probable cost were developed for each alternative discussed in this document, assuming a 75-year life. These costs are considered Class 4 as defined by ASTM International (E2516-11), an organization that sets technical standards used globally. Class 4 costs, by definition, typically use stochastic methods and are used for projects that are in the conceptual phase of development. The alternatives herein fit into this conceptual category.

Many of the alternatives presented in this document use concepts (e.g., boats, helicopters) that have been evaluated in previous reports for transportation alternatives between King Cove and Cold Bay or in the region (e.g., Akutan). These earlier reports are more fully discussed below in Section 3. This report uses an analogous approach, which provides high-level estimates—not detailed estimates—by comparing costs for historical projects with similar features (e.g., Akutan Airport) to the project being estimated. Historical costs were brought forward to 2015 dollars using standard

cost indices. This technique, which is also known as top-down estimating, is often used to estimate costs when only conceptual details about the project are available.

Capital and operations (including maintenance) costs are provided. For purposes of this document, construction of any alternative is assumed to occur in 2020, although some alternatives likely would take more than one construction season to complete. To allow comparison between alternatives, net present values for capital and operating costs are provided using a discount rate of 5 percent and an inflation rate of 2.7 percent. All costs are reported as 2015 dollars.

2.2 Method Used to Assess Risk

Risks for marine and aviation alternatives were assessed qualitatively using a risk assessment method developed by the Federal Aviation Administration (FAA) and incorporated into a risk assessment workbook published by the U.S. Forest Service and Department of the Interior, Bureau of Land Management. This method uses a matrix to relate the likelihood of an outcome with its consequences to determine the level of risk it represents. The matrix, along with definitions, appears in Appendix A.

The matrix combines the likelihood of an event (frequent, probable, occasional, remote, improbable) with the anticipated severity of the outcome or event (catastrophic, critical, marginal, negligible). These result in a combined level of risk, each assigned a score:

1. Low
2. Medium
3. Serious
4. High

Scoring multiple risks for each alternative this way enables the calculation of an average score, allowing for easy comparison among alternatives. However, the process is necessarily subjective, and the risks are not weighted for relative importance. This can be misleading if the exercise is viewed as being more than mostly qualitative. The exercise is meant as a tool for evaluating alternatives but is not meant to produce a final, definitive answer about which alternative is best. Further, the scope of this assessment did not allow for additional evaluations of risk, such as weighting various risks, assessing risk by season, or creating separate risk assessments for different types of risk. Appendix A presents lists of key risks associated with the alternatives—both the risks of implementing each alternative and the risks of operating them once the project is complete.

2.3 Method Used to Assess Dependability

The definition of dependability presented near the beginning of this section calls for an assessment by month. Dependability of any of the alternatives was determined to be primarily a function of wind and weather in any given month. Wind speed and direction were identified as most critical to the dependability of both the marine and fixed-wing aviation alternatives. Wind and other weather information drove dependability for the helicopter alternative.

The alternatives presented were conceptually designed with the area's weather in mind, so dependability of many of the alternatives is relatively high, based primarily on weather. The following sections on each alternative indicate annual dependability ranging from about 70 percent to virtually 100 percent. Many other factors may contribute to dependability, including maintenance issues with the equipment used, human factors such as illness of a pilot or how quickly a vessel operator can reach the vessel, and snow and ice on the road between the clinic in King Cove and the vessel port, airport, or heliport.

Several of the marine and aviation alternatives make use of the existing road between King Cove and the northeast shore of Cold Bay. Anecdotal evidence suggests that there are snow and avalanche hazards that could make portions of the road impassable at times. While this has been identified as a potential risk and could impact dependability, further investigation would be necessary to more accurately quantify the impacts on road travel. This study assumes that regular maintenance of the road, together with an appropriate level of staffing and equipment, would reduce the risk of an impassable road on dependability of medevac access. Thus, these hazards, when compared to wind, are not assumed to be a primary driver of the dependability of the alternatives considered.

Appendix B presents wind data used for all of the marine, airport, and helicopter alternatives.

2.4 Method Used to Assess Medevac Travel Time

The calculation of travel time was based solely on travel for medevac purposes. It was assumed that most medical evacuations would start from the King Cove clinic or from the population center at King Cove. However, the alternatives would operate differently from each other. The marine and helicopter alternatives would cross the water body of Cold Bay to meet a medevac aircraft at the Cold Bay Airport, and the airport alternatives would provide for the medevac aircraft to meet a vehicle on the eastern shore of Cold Bay, without a need to cross the bay. Because the alternatives would operate in different ways, the travel time was calculated for all from the City of King Cove to Ted Stevens Anchorage International Airport (ANC). From ANC, a patient could be delivered to any of three hospitals, all approximately equidistant from the airport. This analysis did not try to determine travel time from ANC to an Anchorage hospital.

Travel time was calculated by adding together each leg of the journey. The calculations assumed average speeds for automobile, ferry, aircraft, and helicopter transportation, and multiplied those speeds by the distance to be traveled under each mode. No time was included for transfers; the calculations are based solely on the times needed for each mode once underway. For the airport alternatives, it is assumed that the time on the road (estimated at 1 hour) would be equal to or greater than the time required for the medevac aircraft to arrive from its home base.

Appendix C presents the estimated medevac times from the City of King Cove to ANC for each alternative.

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3 Existing Information and Past Studies

This document is built upon existing information and past studies, and presents updates to previous studies. Most of the critical engineering research regarding airport and docking locations, marine vessel types, and weather issues was completed previously.

The annotated bibliography at the end of this document (see Section 7) is a list of past studies completed on the topic of transportation alternatives between King Cove and Cold Bay. Most of these were examined in preparation of the current document, but a few studies provided key information. The primary documents referenced were the following:

- “King Cove-Cold Bay Transportation Improvement Assessment: Available Marine Technologies Technical Memorandum” (Glostén Associates 1998) provided important background for the marine ferry alternative.
- “Technical Memorandum, King Cove-Cold Bay Transportation Improvement Assessment: Two Selected Marine Options” (Glostén Associates 1998) provided important design information about the marine ferry alternative.
- “Cold Bay Ferry Study” (Glostén Associates 1999) provided additional information specific to the ferry alternative.
- “King Cove-Cold Bay Transportation Improvement Assessment: Facilities Concept Report” (HDR and Parson Brinckerhoff 2000) provided extensive information on air and marine alternatives, including five appendices listed separately in the bibliography for this *Assessment of Non-Road Alternatives*.
- *King Cove Access Project Final Environmental Impact Statement* (U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service 2003) provided extensive information regarding both air and marine alternatives.

Existing planning studies also inform the current effort. According to the 1994 *Alaska Intermodal Transportation Plan*, DOT&PF, the AEB, and the Cities of King Cove and Cold Bay identified the need for improved access between King Cove and Cold Bay to increase the safety, reliability, and convenience of travel to and from King Cove by eliminating dependence on the city’s inadequate air facilities; to reduce redundant infrastructure and associated costs; and to strengthen the regional economy. Since that time, the focus has narrowed somewhat to safety and medevac capabilities for King Cove. The Omnibus Public Land Management Act of 2009 (Public Law 111-11), as well as the 2003 EIS related to this issue, focused on a road to be “used primarily for health and safety purposes... and only for noncommercial purposes.”

Past Marine Vessel Work. Some of the critical selection criteria established by the AEB for the marine route alternative were identified in the *Project Description for the King Cove Access Project, 7th Revision* (OASIS Environmental, Inc. 2003), and are summarized as follows:

- Reliability 95 percent of the year
- Capability of travel year-round, during all anticipated weather conditions. This includes significant wind and wave heights.

- Ability to travel through up to 12 inches of solid bay ice.
- Suitable for carrying passengers, as well as vehicles with “roll-on/roll-off” capability.
- Cost-effective and sustainable acquisition, operation, and maintenance.

Previous studies identified several potential marine vessel alternatives, including hydrofoils, high-speed catamarans, and ground-effect-type crafts. Many of them offered advantages and quick traverse times in fair weather and calm, ice-free seas. However, the ability to operate year-round and under adverse weather conditions common in this area eliminated many of the marine alternatives under consideration. The studies provided to the AEB identified two viable marine alternatives based on the above criteria:

1. Large purpose-built hovercraft capable of transporting passengers and vehicles
2. Ice-capable monohull ferry suitable for all expected weather and sea conditions

As discussed in Section 1.2, the AEB purchased a purpose-built hovercraft. It operated successfully for approximately 3 years between Lenard Harbor, near King Cove (see Figure 1), and the City of Cold Bay. But ultimately it was taken out of operation because it was too costly to maintain and, in part, because it could not operate about 30 percent of the time. This document reexamines primarily Option 2, the ice-capable monohull ferry.

An ice-capable monohull ferry of sufficient size has been identified as a viable alternative that could meet the marine transportation criteria developed by the AEB. The “Cold Bay Ferry Study” (Glosten Associates 1999) identified a concept vessel that could meet these criteria with a stated 100 percent operability in the weather and ocean conditions of Cold Bay. It is further described in Section 4.

Past Aviation Work. DOT&PF’s *King Cove – Cold Bay Facilities Concept Report and Assessment of Transportation Need*, published in 2000, found that flight operations by Pen Air, the only commercial air carrier serving King Cove at that time, were restricted to operating in daylight hours under Visual Flight Rules (VFR). Due to the frequency of bad weather (i.e., non-VFR conditions), flights in and out of King Cove were often delayed or canceled. The report cited a letter written by Pen Air President Orin Seybert which stated that “Due to terrain there will never be other than VFR daylight-only operations possible, with better than average weather necessary.”

The 2000 DOT&PF report determined that the best available alternative site for a new airport was located on the northeastern shore of Cold Bay, northwest of Mount Dutton.

4 Marine Alternative

4.1 Introduction to Ferry Concept

The ferry concept includes a vessel capable of transporting people and vehicles in virtually all weather conditions and the terminal (dock) facilities needed on both ends of its route. Although the ferry has a longer traverse time than the hovercraft, it appears to be more reliable based on anecdotal information about the approximate 30 percent downtime experienced by the hovercraft during its operation in Cold Bay. Ferries are used widely as a primary means of marine transportation in Alaska, as evidenced by the 3,500 miles of ferry routes and more than 30 communities serviced that make up the Alaska Marine Highway System. Three alternative ferry routes have been identified as viable for marine travel between King Cove and Cold Bay:

- Alternative 1a, Northeast Ferry (with a terminal on the northeast shore of Cold Bay)
- Alternative 1b, Lenard Harbor Ferry (with a terminal on the northern shore of Lenard Harbor)
- Alternative 1c, Direct Ferry (with a terminal in the City of King Cove)

See Figure 2 for the locations of the ferry terminals.

Each alternative would have a dedicated terminal built onto the existing Cold Bay Dock. Each would include a similar ferry terminal, built new, on the King Cove side of the bay. It is assumed that the ferry would be typically moored at the ferry landing on the King Cove side, as this would be most expedient in the event of a medevac situation. These alternatives are described further below.

The three routes provide different combinations of ferry travel time versus driving time to reach the ferry, and exposure to different risks. For example, Alternative 1c has a longer overall travel time and higher exposure to rough sea conditions, but eliminates the risks associated with impassable roads due to heavy snow or avalanches.

All alternatives use the existing Cold Bay Dock. Based on preliminary analysis, there does not appear to be a site within practical distance of the Cold Bay Airport that provides significant advantages or more protection from wind and wave action than the existing dock location. Further investigation is warranted to validate the preliminary assumptions used in this document.

While the primary purpose of the ferry under consideration is medevac, the vessel likely would be used to establish a regular, year-round ferry service between King Cove and Cold Bay. While it is unlikely that the ferry would be used to its full capability, it could make up to three daily round trips between King Cove and Cold Bay. The fares collected from an established ferry schedule would help offset the annual operating expenses associated with the ferry transportation alternative. It is also worth noting that the King Cove Airport is assumed to continue to function under this alternative. This means that, under many conditions, a medevac flight could occur from the King Cove Airport. The ferry would be particularly useful in conditions that were too turbulent, too cloudy, or at night, when use of the King Cove Airport would not be recommended.

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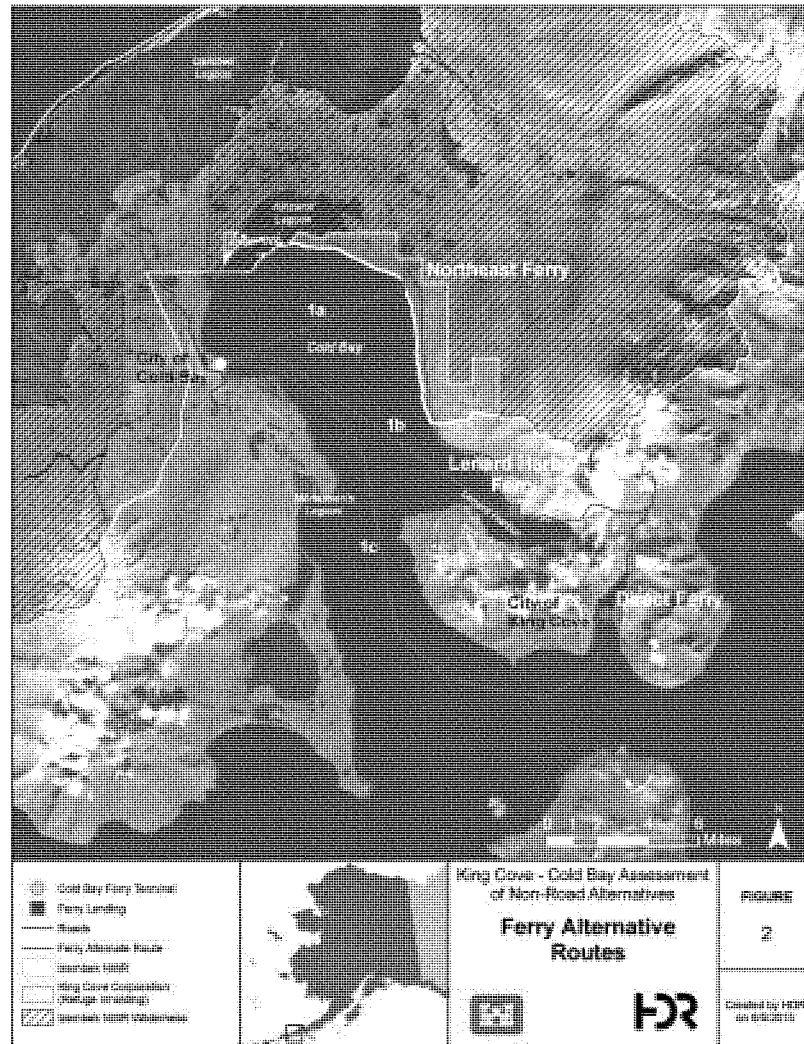


Figure 2. Ferry Alternative Routes

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4.2 Detailed Descriptions—Marine Alternatives

4.2.1 Facilities Common to all Marine Alternatives

The three alternative ferry routes are summarized in the following sections. Most components, including the vessel itself, Cold Bay dock modifications, and the basic mooring and terminal facilities on the King Cove side, would be the same.

The Vessel. The ferry vessel under consideration would have an approximate length of 150 feet, a beam of roughly 42 feet, and a draft of 12 to 14 feet. Sea conditions are the main driver in specifying a vessel of this size. The beam and length of the vessel were optimized based on the wave characteristics in Cold Bay to provide year-round capability and minimize passenger discomfort. The ferry could carry up to 150 passengers, in addition to 19 passenger vehicles and two large trucks. The hull would be strengthened to American Bureau of Shipping ice class A0 classification, capable of travelling through first-year sea ice up to 12 inches thick, and would be capable of operating in virtually all anticipated weather conditions within the waters of Cold Bay. It would likely have a dual-rudder/twin-screw configuration with engines producing approximately 1,200 horsepower. It would be an open deck design with a centrally located island to accommodate passengers and the pilothouse, as opposed to an enclosed ferry with overhead pilothouse. This would allow for ferrying over-height vehicles. Freeboard and bulwark height would be large to maintain the vessel's safe seakeeping capability in the expected sea conditions throughout the year, as well as to minimize shipping of green water and spray ice accumulation on the deck. This is the vessel described in the "Cold Bay Ferry Study" (Glosten Associates 1999).

Cold Bay Ferry Terminal. Figure 3 illustrates a concept for the Cold Bay ferry terminal. The Cold Bay terminal would make use of the first 1,200 feet of the existing Cold Bay Dock to access a new transfer ramp that would branch off the existing trestle and provide access to a floating barge (transfer platform). The barge would function as the landing area for the ferry ramp. The ferry would breast against new dolphins (piling structures bedded in the sea floor, either monopole dolphins with floating donut fenders or five-pile breasting dolphins), and would power in to wingwalls near the moored transfer barge during loading and offloading operations. The mooring site would be located far enough offshore to take advantage of existing bathymetry and eliminate the need for dredging. A breakwater would be required to minimize wave exposure, and would be approximately 900 feet long with a crest elevation +15 feet. The side slopes of the breakwater would range between 1.5H:1V and 2H:1V. The ferry would have ramps off both the bow and stern that could be set down on the transfer platform to allow for vehicle and passenger transfer. This configuration would allow for forward drive-on and drive-off of transported vehicles. Although not currently the case, this analysis assumes that the Cold Bay terminal would have vessel refueling capabilities for the ferry. This would most likely consist of a mobile tanker truck that could drive aboard the ferry to fill the tanks. It is assumed that a tanker truck with refueling capabilities can be made available in Cold Bay.

Ferry Terminal near King Cove. A configuration similar to the one described above for Cold Bay would be used for all three marine alternatives for the ferry terminal providing access from King Cove, although a new trestle would also be required at these locations. In all cases, power would be

required for navigation and facility lights. It is assumed that power would be provided at outlying sites using a battery with light-emitting diode lights and provisions for small-scale solar and/or wind charging. Specifications and photographs of these systems are available online; see, for example, www.sealite.com.

It is also possible that a power line could be buried along the road from the existing King Cove Airport, but it is not included in the cost estimate due to the relatively high cost. For Alternative 1c, located at the City of King Cove, power is assumed to be readily available.

The following sections provide more detail on the terminal locations near King Cove, including figures showing conceptual layouts of marine terminal configurations.

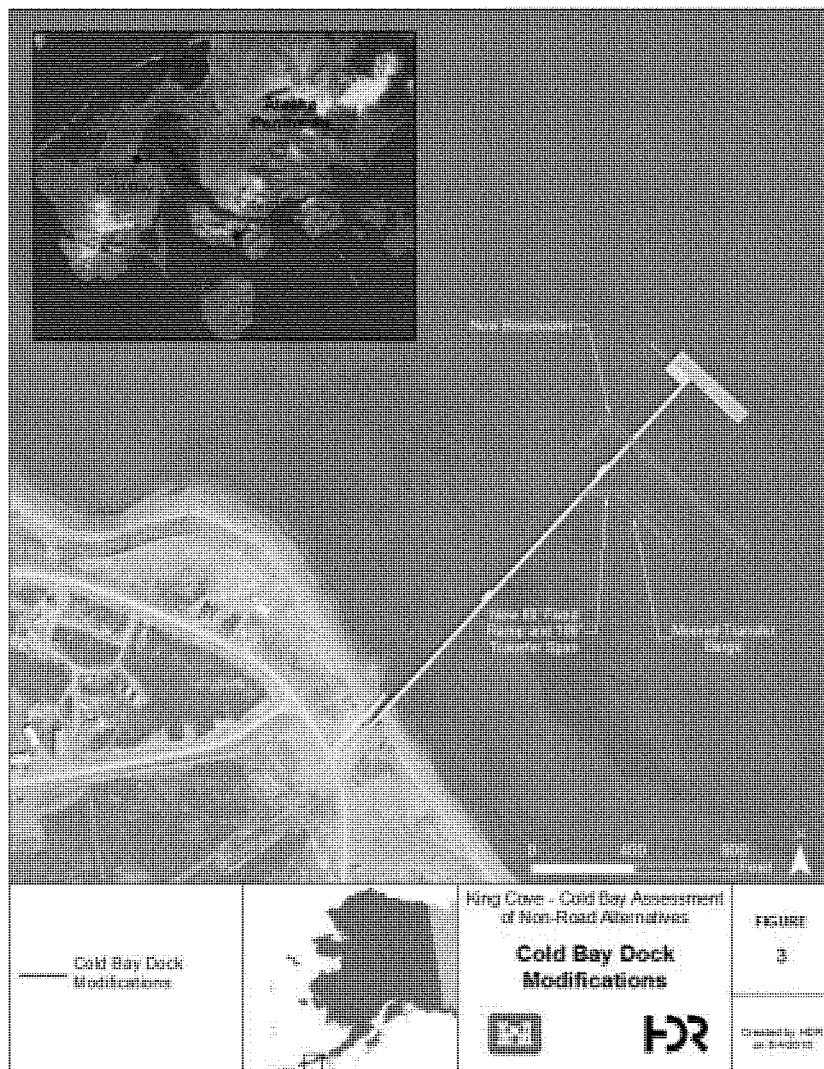


Figure 3. Cold Bay Dock Modifications

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4.2.2 Northeast Ferry (Alternative 1a)

The Northeast Ferry alternative would include a ferry terminal on the northeast shore of Cold Bay, just south of the Izembek NWR boundary, and would include modifications to the existing dock at Cold Bay. The new dock/trestle is anticipated to be about 1,000 feet long to suit existing bathymetry and prevent the need for dredging. A breakwater would be required to minimize wave exposure, and would be approximately 850 feet long with a crest elevation +15 feet. The side slopes of the breakwater would range between 1.5H:1V and 2H:1V. See Figure 4.

Access to the Northeast Ferry terminal would be via the recently constructed road that provides access to the unused hovercraft landing site on the northeast shore of Cold Bay. The route would consist of approximately 21 miles of travel by road, followed by 6 miles of ferry travel to the Cold Bay ferry terminal.

This alternative has a longer road and more exposure to avalanche hazards and hazardous road conditions than the Lenard Harbor Ferry alternative, but it provides the shortest ferry travel time and slightly less severe wind and wave exposure than the other ferry alternatives.

Total travel time from King Cove to ANC Airport for medevac purposes is estimated to be 3.5 hours. Appendix C provides a complete look at medevac travel times for the marine, airport, and helicopter alternatives.

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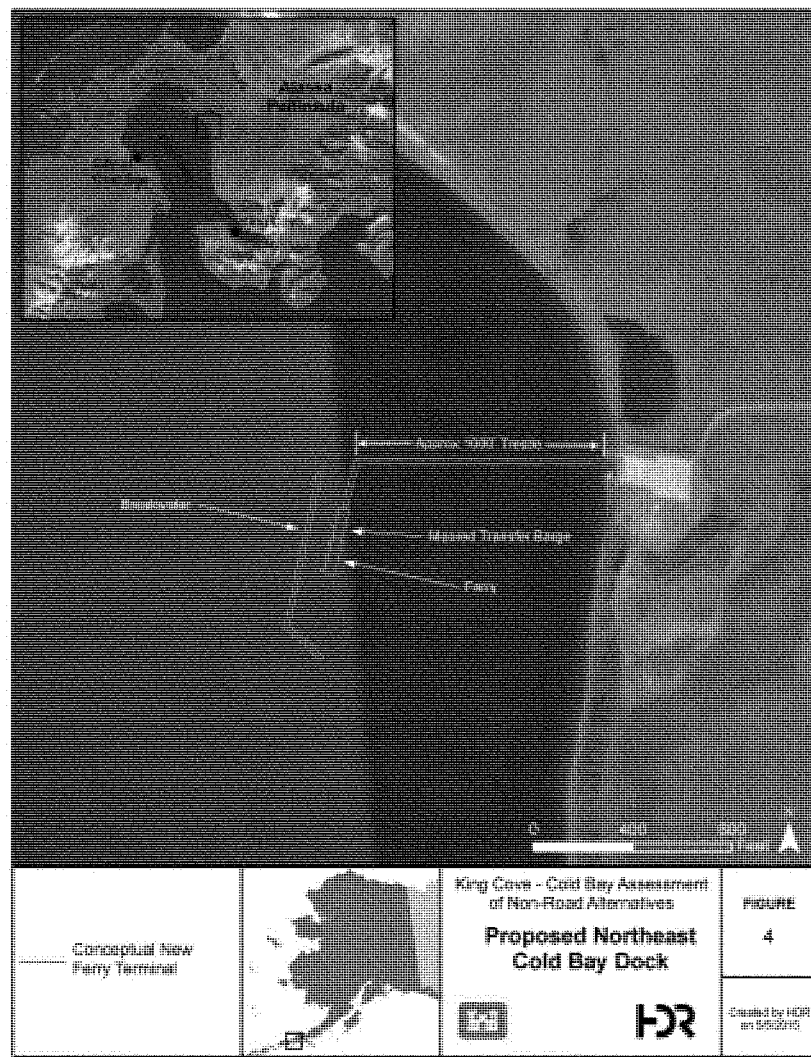


Figure 4. Proposed Northeast Cold Bay Dock

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4.2.3 Lenard Harbor Ferry (Alternative 1b)

The Lenard Harbor alternative would include a ferry terminal at Lenard Harbor and modifications to the dock at Cold Bay. The terminal at Lenard Harbor would be relatively protected from wind and wave exposure, and it is assumed it would not require a breakwater. The existing bathymetry is such that the new trestle would need to be approximately 300 feet long to eliminate the need for dredging. See Figure 5.

Access to the Lenard Harbor ferry terminal would be via the existing road between King Cove and Lenard Harbor. Travel from King Cove would include 11 miles on the road and a 14-mile ferry trip to Cold Bay.

Avalanche hazards and the potential for snow-covered roads exist along the road route between King Cove and Lenard Harbor, which could make the route impassable at times. However, it is assumed that the occurrence of avalanches is very infrequent. Most of the road is the same road used to access the existing King Cove Airport.

Total travel time from King Cove to ANC for medevac purposes is estimated to be 3.7 hours. Appendix C provides a complete look at medevac travel times for the marine, airport, and helicopter alternatives.

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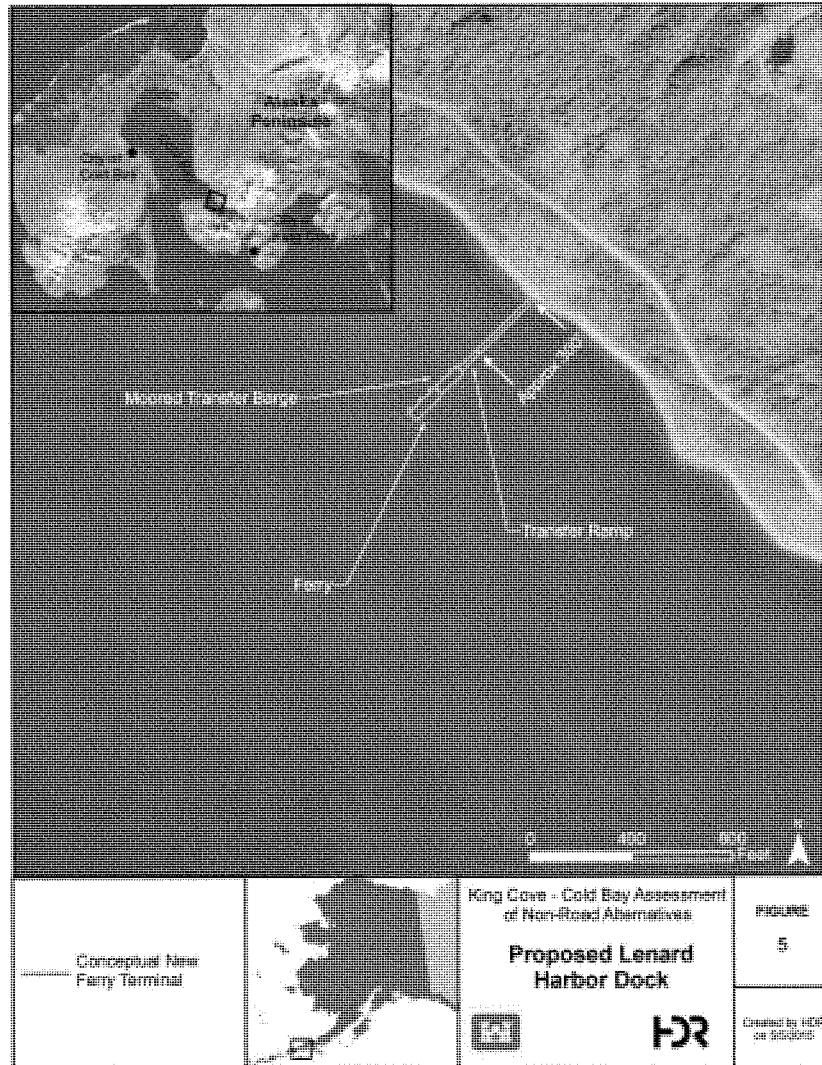


Figure 5. Proposed Lenard Harbor Dock

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4.2.4 Direct Ferry (Alternative 1c)

The Direct Ferry alternative would include a ferry terminal on the north shore of King Cove and modifications to the dock at Cold Bay. The existing bathymetry is such that the new trestle would need to be approximately 400 feet long to eliminate the need for dredging. A breakwater would be required to minimize wave exposure, and would be approximately 950 feet long with a crest elevation +15 feet. The side slopes of the breakwater would range between 1.5H:1V and 2H:1V. See Figure 6.

The terminal would be linked closely to existing King Cove infrastructure and would use existing roads, with virtually no road construction or road-based transportation time required. It would have immediate access to the existing electrical power supply in King Cove. The ferry route would include a stretch of approximately 13 miles in waters open to the Pacific Ocean between King Cove and Cold Bay, and it would have a the longest total transit time with more susceptibility to harsh sea conditions and passenger discomfort. The route would consist of approximately 27 miles total of ferry travel. The advantage to this alternative is the elimination of exposure to snow and ice, as well as to the avalanche risk for the road portion of the route that may be experienced in the other alternatives.

Total travel time from King Cove to ANC for medevac purposes is estimated to be 5 hours. Appendix C provides a complete look at medevac travel times for the marine, airport, and helicopter alternatives.

4.2.5 Comparison of Mode Options

Table 1 provides a comparative summary of the relative pros and cons of the three marine alternatives. This is meant to summarize the material above and to include relative information on the costs presented later in this document, but is not necessarily a complete list of criteria that should be used for selection of ferry terminal locations. Rather, it is a tool to present a quick snapshot of some relative advantages and disadvantages.

Table 1. Summary Comparison of Marine Alternatives

Alt	Description	Comfort / Rough Seas	Road Hazards ^a	Medevac Travel Time	Operations and Maintenance Cost	Capital Cost	Sum
1a	Northeast Ferry	0	-1	0	0	-1	-2
1b	Lenard Harbor Ferry	0	0	0	0	0	0
1c	Direct Ferry	-1	1	-1	-1	-1	-3

1=Favorable; 0=Neutral; -1=Unfavorable

^aRoad hazards such as snow/avalanche

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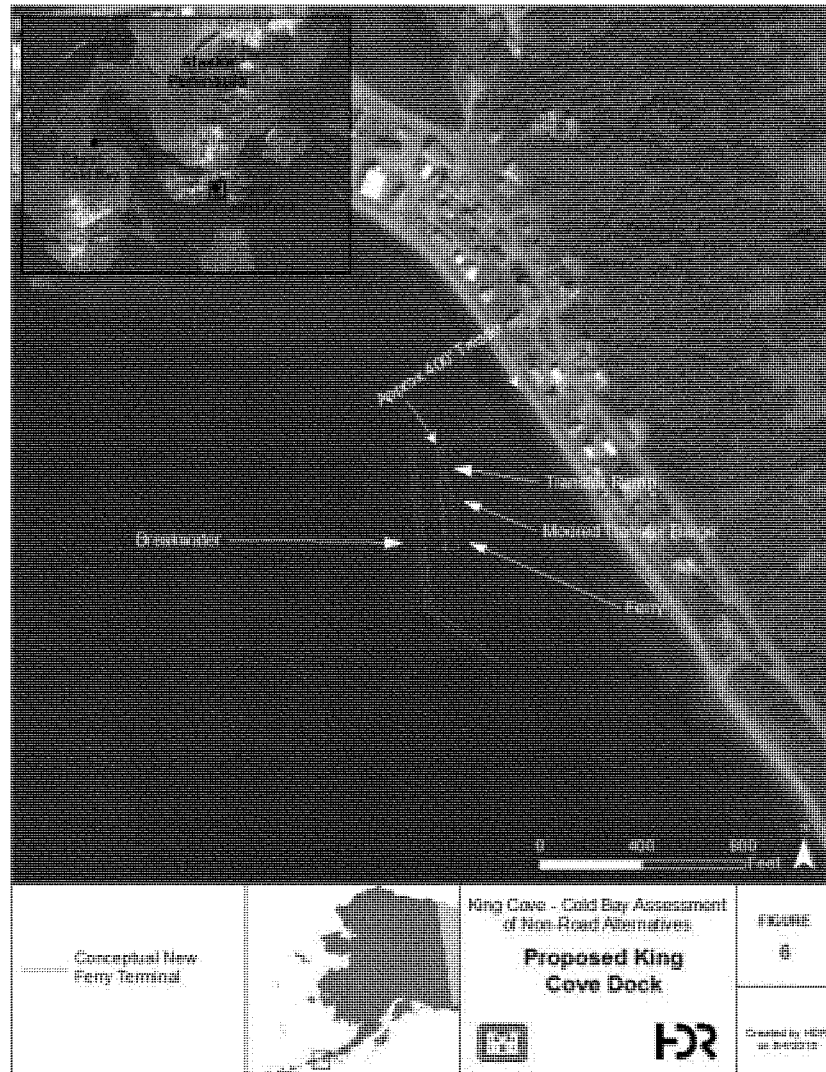


Figure 6. Proposed King Cove Dock

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4.3 Construction and 75-Year Life-Cycle Costs

Notes on methods used to determine costs for this document appear in Section 2. The capital costs are similar for all marine options, based on the assumption that the Direct (King Cove) and Northeast Ferry terminals would require a breakwater, while the Lenard Harbor Ferry terminal would be sufficiently protected to eliminate the need for a breakwater. The vessel type and modifications to the Cold Bay Dock are identical for all three options. It is assumed that existing roads would provide sufficient access without upgrades. Capital costs for the marine facilities and ferry vessel were based on the unit costs and quantities provided in the “King Cove Facilities Concept Report.”

Table 2 summarizes the costs of the marine alternatives. The table reports capital costs in 2015 dollars and—for simplicity—uses the assumption that the ferry and docks would be built in 1 year, although vessel construction in reality would take longer. O&M costs shown are the costs projected for the first year of operations, in 2015 dollars. The O&M costs were bundled with the capital costs and applied over 75 years, accounting for inflation, and then brought back to 2015 dollars using a discount rate to provide a net present value (cost) of each alternative. Note that it is assumed the vessel life would be at least 75 years. The 75-year costs do not include provisions for periodic major replacements, such as engine replacement, as that level of analysis is beyond the scope of this study.

Table 2. Costs of the Marine Alternatives

Description	Alt 1a	Alt 1b	Alt 1c
Capital Costs (millions)	\$41.8	\$29.9	\$39.0
Annual Operations and Maintenance Costs	\$872,300	\$925,600	\$1.14 M
75-Year Life-Cycle Costs (2015 Net Present Value, millions)	\$65.7	\$56.7	\$71.9

Notes:

All costs are presented in 2015 dollars. 75-year costs are escalated to 2095 and then brought back to 2015 dollars. Capital costs include the ferry vessel and all dock/terminal components on both shores of Cold Bay, including provisions for electricity and (where applicable) a breakwater.

Vessel operating costs are based on an annual average of 1.5 round trips per day using a four-person crew. O&M costs also include (where applicable) road maintenance for any road dedicated to ferry access.

Annual O&M costs are based on the cost breakdowns provided in the “King Cove Facilities Concept Report” for the ice-strengthened ferry vessel, as well as maintenance costs for shoreside facilities. The additional wear and tear on the vessel associated with the Direct Alternative (Alternative 1c) has been captured by scaling up the hull and machinery maintenance costs based on the additional travel distance. Below is a list of items captured in the ongoing annual operating costs.

- Vessel hull maintenance costs, based on vessel weight
- Vessel machinery costs, based on propulsion and generator power output
- Crew costs to operate the vessel
- Fuel/lube oil costs as a function of travel distance and propulsion power
- Longshore/berthing costs
- Shoreside facilities maintenance



- Road maintenance (based on DOT&PF guidance and includes annual cost associated with grading, plowing, dust control, minor repairs, and similar activities necessary to keep the roads safe and operational).

4.4 Risks

Appendix A details key risks associated with the marine alternatives, including risks to implementing the alternative and risks of operating it once the project was complete.

Methods for assessing risk for all marine, airport, and helicopter alternatives are explained in Section 2. Multiple types of risks were identified and ranked using a matrix (shown in Appendix A). An average risk score was calculated. For the marine alternatives, the average risk scores were:

- Northeast Ferry (Alternative 1a): 2.4—medium-serious
- Lenard Harbor Ferry (Alternative 1b): 2.4—medium-serious
- Direct Ferry (Alternative 1c): 2.4—medium-serious

For all marine alternatives, the most important risks identified were related to operations at night and in extreme weather, permitting, and delays in getting the project built in an area with known important wildlife resources both on land and in the ocean. In addition, acquisition of the funding needed for construction and ability to financially sustain the operation in perpetuity are also important risks.

The principal risks to the marine alternatives are:

- Capital funding: This is critical to implementation of any of the marine alternatives.
- Operational funding: Annual O&M costs of the ferry system are unlikely to be offset by passenger fares. Inability to adequately fund annual operations was a primary factor in the AEB halt of the hovercraft marine connection in 2010.
- Regulatory permitting implications of installing a breakwater and construction of the ferry terminals: Effects to marine mammals and seabirds are an issue for the marine alternatives.
- No redundancy in the ferry system in the event of unplanned maintenance.

The most important risk *differences* among the marine alternatives are related to whether the ferry will be required to cross open water. Alternative 1c (Direct Ferry) has higher risk in a few key areas:

- Long travel time, which would put certain critical patients at greater risk of death or long-term complications. Recovering stroke victims, for example, have much better outcomes with prompt medical intervention at a hospital.
- Rough seas/open water travel, which could mean the vessel would not travel or could be at risk of capsizing if it did.

4.5 Dependability

Dependability of the marine alternatives would be based on:

- Wind speed (and related wave conditions) on the ferry route.
- Snow conditions, including snow and ice on the road and potential avalanche closure of the road (for Alternatives 1a and 1b).
- Downtime for maintenance of the ferry vessel, including maintenance of its ramps, and the trestles that allow vehicles and passengers to board.
- Unplanned maintenance and repair work that could take the ferry out of service

It is assumed the ferry would not operate in wind speeds exceeding 40 knots (46 MPH), based on operational restrictions and landing limitations in place at other ferry terminals in the region. Historic instantaneous wind data (see Appendix B) were examined to determine how often winds would exceed 40 knots (46 MPH). It is assumed that the vessel would be able to operate in any weather up to that speed, and this is the primary determinant of dependability. Table 3 indicates dependability by month based on wind speed.

Table 3. Marine Alternatives, Dependability by Month (%)

Alt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1a	99.9	99.5	99.6	100	99.9	99.7	100	100	99.9	99.6	99.9	99.7	99.9
1b	99.9	99.5	99.6	100	99.9	99.7	100	100	99.9	99.6	99.9	99.7	99.9
1c	99.8	99	99.2	100	99.8	99.4	100	100	99.8	99.2	99.8	99.4	99.6

Note: No wind data were obtained for the open water portion of Alternative 1c. However, it is assumed that the impact of more wind and wave exposure would increase the inoperable time period by a factor of 2 in comparison with Alternatives 1a and 1b.

Based on 3 years of historical wind data available (see Appendix B), the percentage of time during an average year that wind speeds exceed 40 knots (46 MPH) is 0.128 percent. On that basis, the ferry has 99.6 percent to 99.9 percent dependability based on historic wind data and the proposed ferry route. However, for medevac purposes, the dependability of all transportation modes in the medevac chain should be considered for total dependability. For example, there may be rare times when winds are below the operating threshold for ferry travel, but exceed the safe air travel threshold at Cold Bay Airport based on combined wind direction and speed.

For purposes of this conceptual document, based on 40-knot (46-MPH) wind speed, it is assumed that dependability for Alternative 1c (Direct Ferry) would be slightly less than dependability for the other two marine alternatives. While Glosten Associates' *Marine Alternative Study* indicated the proposed ferry vessel should provide 100 percent weather capability in the waters of Cold Bay, this may not be the case in the open water stretch. The potential for more severe sea conditions with the seafaring capability of the monohull ferry vessel should be investigated in more detail should this alternative be carried forth into a full feasibility study.

Alternatives 1a and 1b (Northeast Ferry and Lenard Harbor Ferry) have a slightly higher weather dependability for the ferry route portion, but the risk of heavy snow on the road and of avalanches reduces the dependability of the road portion of these alternatives. The Direct Ferry from King Cove (Alternative 1c) would not require driving out of the community. Although the scope of this study did not include local stakeholder input, further investigation into the expected frequency of

impassable road conditions on the access road from King Cove to the northeast shore of Cold Bay is recommended during more detailed studies to validate the assumptions used in this analysis and to determine with greater precision which route has the highest overall dependability. This could include gathering information from and possibly interviewing local residents based on their historical observations.

4.6 Other Marine Considerations

Ferry Revenue. It is likely that the ferry would not operate at capacity most of the time, and thus revenues would not cover the operating expenses. The “King Cove-Cold Bay Transportation Improvement Assessment: Facilities Concept Report” indicates that the ferry may be loaded to 16 percent of capacity on average, based on several trips per day and operating 5 days per week.

Smaller Landing Craft. There have been recent discussions about the possibility of using a much smaller landing craft to provide a marine link between King Cove and Cold Bay. This type of craft can land directly on the shore with minimal infrastructure needed, and can carry a vehicle as well as passengers. However, shore landings for this type of craft can often be carried out only in ideal conditions. Given the prevailing wind and sea conditions within Cold Bay, it is questionable how often the landing craft could be used in this fashion.

These smaller vessels typically are not ice-capable and thus would not be able to perform shore landings in ice conditions. While the vessel could be fitted with a deeper and heavier hull to accommodate light ice and heavier seas, it would then have a draft that prevented it from shore landings and would require some type of infrastructure on both ends of the route.

The landing craft would not meet the design criteria developed by AEB for the marine route alternative. At this time it appears that it would not be suitable for year-round medevac use. Further study of this option may be warranted, however, as a limited-purpose marine vessel for medevacs.

Special Purpose Medevac Boat. Another possible alternative that warrants further study is the use of a smaller, special purpose severe-duty rescue boat for the sole purpose of medevac. These rescue boats can come in a variety of configurations, such as self-righting or shore-landing-capable vessels. A vessel of this type would require significantly less capital investment in both the vessel and the terminal requirements, and lower maintenance costs.

There are, however, a few drawbacks to this alternative. The first is that these vessels are typically not ice-capable and thus not able to reach the shore in the event of bay ice. Another drawback to a smaller, special-purpose rescue boat is that passengers would be subjected to significantly more pitch and roll of the vessel and overall discomfort during inclement weather than with the larger monohull ferry vessel. Lastly, this alternative would have the sole purpose of medical evacuation. It would not be suitable for customary passenger travel and could not transport roll-on/roll-off cargo. Some rescue vessels have a bow ramp that could allow for transfer from the boat to a shore-based, ice-capable vehicle such as a small hovercraft or snowmobile in the event of significant bay ice. Specifications and photographs of this kind of boat and other specialty boats are available online; see, for example, www.safeboats.com or www.kvichak.com.

5 Airport Alternatives

5.1 Introduction to Airport Concept

The airport concept includes a new airport built for the City of King Cove that would function better in poor weather conditions, including instrument capability, than the existing airport. The one technically feasible site for a new airport that is away from mountain hazards and wind-channeling terrain and does not physically encroach into the Izembek NWR is located northwest of Mount Dutton and just east of the existing (abandoned) hovercraft landing. This site affords airspace with few obstructions on approaches from the north, west, or east. An approach from the south would be high over a mountain ridge west of Mount Dutton. Two airport alternatives, designed to accommodate two different medevac aircraft, are considered:

- Alternative 2a (5,000-foot paved runway)
- Alternative 2b (3,500-foot gravel runway)

These alternatives are further described below. See Figure 7.

The two airport alternative designs give specific consideration to accommodating aircraft used in the Aleutian Region for medevac operations. The typical destination for medevac flights from the Aleutian region is Anchorage. The primary medevac provider for the Aleutians, Guardian Flight, maintains a remote base at Unalaska. Guardian Flight would probably prefer to respond to medevac needs at King Cove from Unalaska. Guardian Flight uses both Learjet 35 aircraft (a small jet) and Beechcraft King Air aircraft (a twin-engine turboprop airplane), but because of the limited length of the runway at Unalaska (4,100 feet), Guardian Flight bases only the King Air there. A response with the Learjet 35 would come from Anchorage, possibly increasing costs for the medevac provider. Airport Alternative 2a is designed with the Learjet 35 in mind. Alternative 2b is designed for the Beechcraft King Air.

The Learjet 35 is a multi-role business jet that can carry eight passengers. It has a cruise speed of 480 mph. The Beechcraft King Air has two turboprop engines and can carry up to 13 passengers. It has a cruise speed of 330 mph. Each of the aircraft can be configured for use as an air ambulance.

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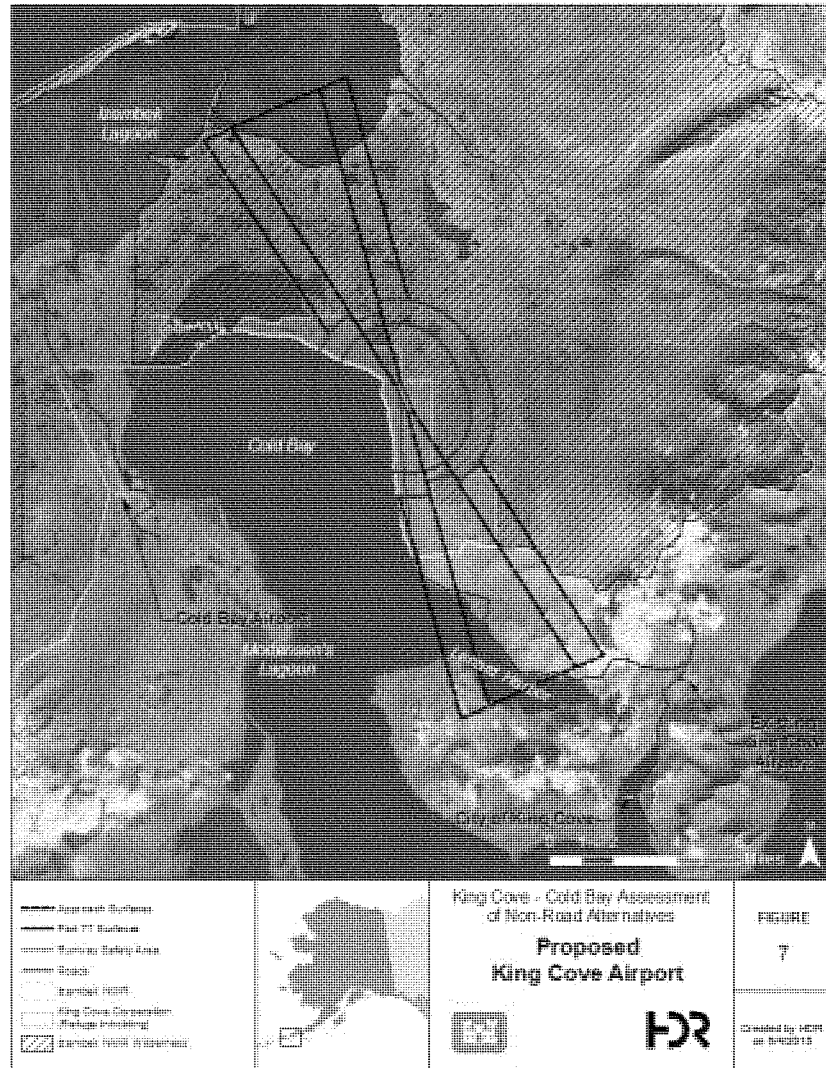


Figure 7. Proposed King Cove Airport

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The new airport would be close enough to the Cold Bay Airport that aircraft movement patterns could be coordinated between the two airports by the Cold Bay FAA Flight Service Station. Local reports are that wind and cloud conditions would still be severe at the proposed airport site, but—much like the Cold Bay Airport—there would be fewer obstructions to compound weather and visibility problems, and instrument-based flights would be more practical than at the existing King Cove Airport.

In accordance with the Statement of Work for this project, both airport alternatives include a Category 1 Instrument Landing System (ILS). However, the FAA is no longer installing ILSs; their preferred system is now RNAV (aRea NAVigation), a method of instrument flight rules (IFR) navigation based on a satellite-based Global Positioning System. Regardless, for design and estimating purposes for this project, ILS approach dimensional and clearance standards also apply to RNAV approaches.

The new airport would include a runway, an apron, and a connecting taxiway. The runway alignment is assumed to be the same as for Cold Bay Airport's primary runway, located approximately 9 miles directly west across the bay from that location. A site-specific wind study could alter this assumption or require the addition of a crosswind runway.

Power for the runway lighting system and navigation aids is assumed to be generated on-site. Snow removal for the road would be provided from King Cove. Snow Removal Equipment (SRE) dedicated for airport maintenance would be housed in an SRE Building located on the apron.

The airport site would be accessed by an existing gravel road extending 21 miles from the City of King Cove. Between King Cove and the existing airport, a distance of about 5 miles, the road is two lanes wide with a gravel surface. From the existing airport to the proposed airport site, a distance of about 16 miles, the road is a single-lane gravel road with inter-visible turnouts for passing. As described in this document, the road would not be widened. Given the low level of traffic expected on this route, one driving lane with turnouts is appropriate. It would also minimize maintenance costs.

5.2 Detailed Descriptions—Airport Alternatives

Both airport alternatives would be designed to the same FAA A/B II standard. The "Critical Aircraft" is defined by the FAA as the most demanding aircraft anticipated to operate at the airport more than 500 times per year—in this case, a Cessna 208, as defined by the DOT&PF *Alaska Transportation Plan* (2004). The Cessna 208 and Beechcraft King Air (the primary medevac aircraft serving the region) have similar runway requirements. For Alternative 2a, however, the runway is extended and paved to support occasional use by the more demanding Learjet 35. Figure 8 illustrates the standard airport layout and the relative length of the 3,500-foot runway versus the 5,000-foot runway.

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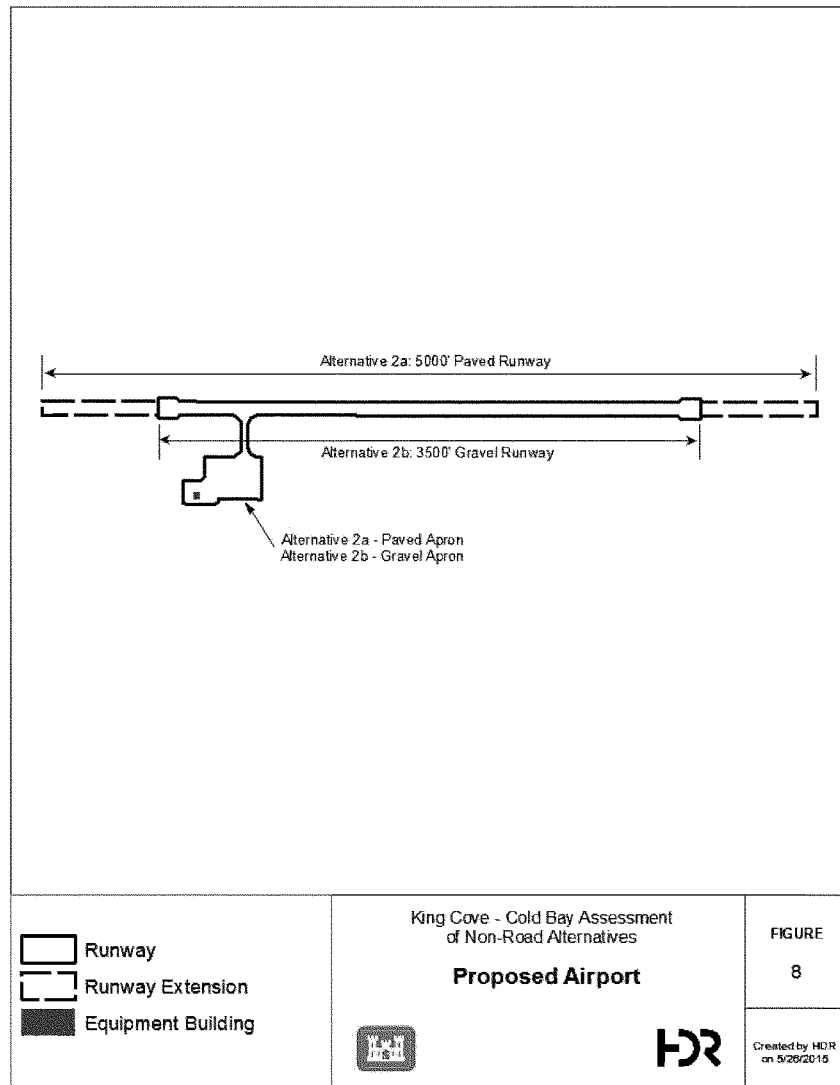


Figure 8. Airports Concept

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Either alternative would include Object Free Areas around the runway (300 feet on the sides, 500 feet at each end) and Runway Safety Areas (150 feet on the sides, and 300 feet at each end of the runway), per FAA standards. The airport would be fenced.

The following sections detail the differences between the two alternatives.

5.2.1 Alternative 2a (5,000-foot runway/Learjet 35)

Alternative 2a would provide a runway 75 feet wide and 5,000 feet long, to accommodate occasional service by the Learjet 35. The difference between the “standard” length for an A/B II airport (3,500 feet) and the desired length would have to be approved by the FAA if federal Airport Improvement Program (AIP) funds were to be used to construct the airport.

The Learjet does not operate on a gravel surface, because gravel can cause catastrophic damage to jet engines. The runway therefore would be paved. In addition, to maintain adequate friction on the runway surface to permit safe operations in winter conditions, the runway would require a higher level of maintenance than is common at gravel surface airports. At minimum, this would require a grader, a mechanical broom, a broom truck, and a sand spreader. This equipment would be stored in a heated, three-bay snow removal equipment (SRE) building, and the airport would probably be staffed by an airport maintenance staff of three in the winter, and possibly fewer in summer.

Total medevac travel time from King Cove to ANC using the Learjet 35, inclusive of traveling the road between King Cove and the new airport, is estimated to be 2.4 hours.

5.2.2 Alternative 2b (3,500-foot runway/King Air)

Alternative 2b would provide a runway 75 feet wide and approximately 3,500 feet long. The runway surface would be gravel. This runway length, width, and surfacing are very similar to conditions at the existing King Cove Airport and are standard for the aircraft typically serving community airports in the region from the Unalaska Airport regional hub. The Beechcraft King Air is an appropriate aircraft to operate at the small gravel-surfaced community airports typical of the Aleutian Region. Airport-dedicated snow removal equipment typical for unpaved remote airports—a bulldozer, a grader, or both—would be sufficient for surface maintenance. Maintenance equipment would be stored in a heated, single-bay SRE building. Maintenance staff for the access road would share airport maintenance duties, but additional staff would be required.

The runway length proposed for this alternative (3,500 feet) is slightly longer than the 3,300-foot runway proposed for King Cove by the *Southwest Alaska Transportation Plan Revised* (DOT&PF 2004), but matches the runway length of the existing King Cove Airport.

Total travel time from King Cove to ANC using the King Air, inclusive of traveling the road between King Cove and the new airport, is estimated to be 3 hours.

5.2.3 Comparison of Airport Options

Table 4 provides a comparative summary of the relative pros and cons of the two airport alternatives. This is meant to summarize the material above and include relative information on costs presented later in this document, and is not necessarily a complete list of criteria that should

be used for alternative selection. Rather, it is a tool to present a snapshot of some relative advantages and disadvantages.

Table 4. Summary Comparison of Airport Alternatives

Alt	Description	Medevac Travel Time	Operations and Maintenance Cost	Appropriate for Critical Aircraft	Sum
2a	5,000-ft Runway/Learjet 35	1	-1	-1	-1
2b	3,500-ft. Runway/Beechcraft King Air	-1	1	1	1

1=Favorable; 0=Neutral; -1=Unfavorable

5.3 Construction and 75-Year Life-Cycle Cost

Capital costs used in this document for construction of a new airport are based on recent construction of the Akutan Airport, on Akun Island. The lump sum total for the airport is the basis for figures used here, with adjustments for runway length and surface type, with allowance for inflation.

The capital costs would be higher for Alternative 1a because it would have a longer runway, it would be paved, and the runway would require a larger building to house SRE. The paved runway for jet service would require more maintenance at higher cost. Both would require maintenance of an additional 16 miles of road to reach the airport. Table 5 shows capital costs and O&M costs. This document presents the full costs of the alternatives. If the existing King Cove Airport were to be closed upon completion of the new airport, which is likely, the existing operating and maintenance costs accruing to the DOT&PF operating budget for the existing airport would be replaced by the costs of the new airport.

Table 5 reports capital costs in 2015 dollars and assumes that all airport alternatives would be built in 1 year. O&M costs shown are the costs projected for the first year of operations, in 2015 dollars. The O&M costs were bundled with the capital costs and applied over 75 years, accounting for inflation, and then brought back to 2015 dollars using a discount rate to provide a net present value (cost) of each alternative. Note that this does not include provisions for periodic replacement of snow removal equipment, the navigation system, or recurring tasks such as repaving (Alternative 2a only) the runway.

Table 5. Costs of the Airport Alternatives

Description	Alt 2a	Alt 2b
Capital Cost	\$84 M	\$47 M
Annual Operations and Maintenance Cost	\$674,700	\$223,300
75-Year Life-Cycle Cost (Net Present Value)	\$97.0 M	\$49.3 M

Notes:

All costs are in 2015 dollars. M = million.

Capital costs include a complete airport. Assumes no road construction necessary.

O&M costs include airport O&M and road O&M for the road segment dedicated to airport use.

The 75-year total cost is escalated to account for inflation over time and brought back to 2015 dollars.

This table presents the full costs of the alternative. Potential savings to the DOT&PF operating budget resulting from closure of the existing King Cove Airport are not included.

5.4 Risks

Methods for assessing risk for all marine, airport, and helicopter alternatives are explained in Section 2. Risk assessment tables for all of the alternatives appear in Appendix A. Multiple types of risks were identified and ranked using a matrix (shown in Appendix A). This qualitative assessment resulted in an average risk score. For the airport alternatives, the average risk scores were:

- Alternative 2a (5,000-foot runway): 2.4—medium-serious
- Alternative 2b (3,500-foot runway): 2.5—medium-serious

The risks identified in the assessment tables for each of the two airport alternatives are nearly identical. Those considered to be of the greatest concern are discussed below.

The risks of night operations and air travel in general for the King Cove-Cold Bay area, as well as for the Aleutian Island region, are significant. Various sources describe the Aleutian Islands as the windiest and rainiest region in the United States. The mountainous terrain can cause dangerous turbulence, increased wind speeds due to venturi effects, and accumulation of clouds. These factors, together with the remoteness of both communities, place a premium on the appropriate implementation and use of technology, pilot training for good decision-making, and timely weather data collection and reporting, particularly when night operations compound the regional weather effects.

The road between King Cove and the identified airport site passes through three possible avalanche areas, based upon a preliminary examination of aerial photography. Two of these areas are located along the road to the existing King Cove Airport. The third is located about 5 miles west of the existing airport. Further information on the frequency of avalanches should be collected, but anecdotal accounts indicate that avalanches are not annual occurrences. In addition to representing a risk to travelers on the road, an avalanche would effectively close the new airport until the avalanche debris could be cleared from the road.

Animal behaviors are a concern for the safe operation of the airport, due mainly to the potential for conflicts with animals on the runway and birds in the runway approach airspace. Fencing would

mitigate the danger from animals but not guarantee removal of all danger. Snow drifts, failure to close gates, and poor maintenance can facilitate animal passage over or through fences. Avoiding the creation of additional water bodies through the use of best management practices during construction and the revegetation of disturbed terrain near the airport would help reduce the concentration of birds near the airport.

The ability to secure construction funding would be critical to the success of either alternative. The most likely source of funding would be a grant from the FAA Airport Improvement Program (AIP). Acceptance of an AIP grant carries with it many obligations, including the ability to ensure the long-term support of the facility, which would include the maintenance of any associated single-purpose airport access road. In Alaska, DOT&PF is most often the owner/operator of rural public airports. In assuming responsibility for the cost of the proposed airport, DOT&PF could minimize the impact to their maintenance budget by closing the existing King Cove Airport. However, DOT&PF also would assume the cost of maintaining approximately 16 miles of roadway past the existing airport that they are not currently maintaining. Given recent reductions to the state operating budget, this could be problematic. In theory, these same ownership and maintenance responsibilities could be assumed by the AEB or the City of King Cove, but the cost and administrative burdens may be beyond the abilities of either entity to support.

5.5 Dependability

Weather is the chief determinant of dependability of access in the Aleutian Islands region. How weather affects the safety and operability of airports within the region is highly site-specific. On-site weather data were not collected for the proposed airport site, but data collected at Cold Bay Airport were evaluated as a reasonable proxy. It should be noted, however, that the topography differs at the two sites. About 5 miles to the southeast of the proposed airport site is a ridge (elevations less than 3,000 feet) off Mount Dutton. For the Cold Bay Airport, Mount Frosty is somewhat higher (6,300 feet) and lies about 9 miles to the southwest. Winds coming from the southeast at the proposed airport site likely would generate more turbulence than might be expected at Cold Bay Airport from that direction. The mountains may also tend to affect the accumulation or departure of cloud cover differently.

Cold Bay Airport has an ILS but, according to information compiled by the Medallion Foundation,³ is not able to support safe operations 100 percent of the time.

Guidance provided by the Medallion Foundation also indicates that, at wind speeds above 35 knots (40 MPH), commercial pilots should consider not operating at Cold Bay Airport. Wind conditions are expected to be similar at the proposed site. An examination of monthly average wind speeds at the airport (see Appendix B) shows that higher wind speeds occur most often in the winter—October through March. There is not a strong seasonal trend in wind direction on an annual basis at Cold Bay (Weatherspark.com 2015). For this document, a wind speed of 40 knots (46 MPH) was used as a cutoff. Appendix B shows that wind speeds of 40 knots (46 MPH) are exceeded about

³ The Medallion Foundation is an Alaska-based non-profit organization that promotes aviation safety. Medallion guidance, compiled from information submitted by its member commercial air carriers, identifies thresholds for safe wind speeds at Alaska's commercial airports, beyond which aircraft operations are not advised.



0.128 percent of the time on an annual basis. Note that the data set for June is probably an anomaly, possibly an issue with the data collection equipment.

Finally, the snow events and avalanche-prone areas on the 21-mile access road may reduce dependability an additional 5 percent, but only in the winter.

Wind data used for all marine, airport, and helicopter alternatives appear in Appendix B. Table 6 indicates dependability of Alternatives 2a and 2b by month based on wind speed.

Table 6. Alternatives 2a and 2b, Dependability by Month (%)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
94.9	94.6	94.6	95.0	95.0	94.9	95.0	95.0	95.0	94.7	95.0	94.8	94.9

Notes: Based on 2012-2013 wind measurements at Cold Bay Airport. Dependability is based primarily on winds each month at greater than 40 knots (46 MPH). Data source: National Climatic Data Center.

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6 Helicopter Alternative

6.1 Introduction to Helicopter Concept and Common Design Features

The helicopter concept is modeled on the helicopter service AEB currently employs between the community of Akutan and the community's airport on Akun Island. This service would feature the following elements:

- A leased helicopter (Bell 212 or similar on floats) and crew. Minimum on-station crew would consist of one pilot and one mechanic.
- A lighted heliport facility with a pad of 100 feet by 100 feet.
- A hangar of 40 feet by 80 feet for sheltering the helicopter when not in use, providing space for performing helicopter maintenance, and storing spare parts and fuel. The hangar would accommodate a B 212 helicopter with the main rotor blades folded.
- Road access from King Cove.

This document examines four possible alternative locations on the King Cove side of the bay:

- Alternative 3a: Northeast Heliport (located on the northeast shore of Cold Bay)
- Alternative 3b: Lenard Harbor Heliport (located at the north shore of Lenard Harbor)
- Alternative 3c: Peninsula Heliport (located on the peninsula at the western end of Lenard Harbor)
- Alternative 3d: King Cove Heliport (located at the City of King Cove)

The features above would be common to all locations. See Figure 9 for heliport locations.

The Cold Bay Airport does not have a designated heliport, but it is assumed the helicopter would follow normal landing procedures and hover-taxi to and from an existing aircraft parking apron. It is assumed the helicopter and crew would be located on the King Cove side of the bay; however, see "Other Considerations" at the end of Section 6.

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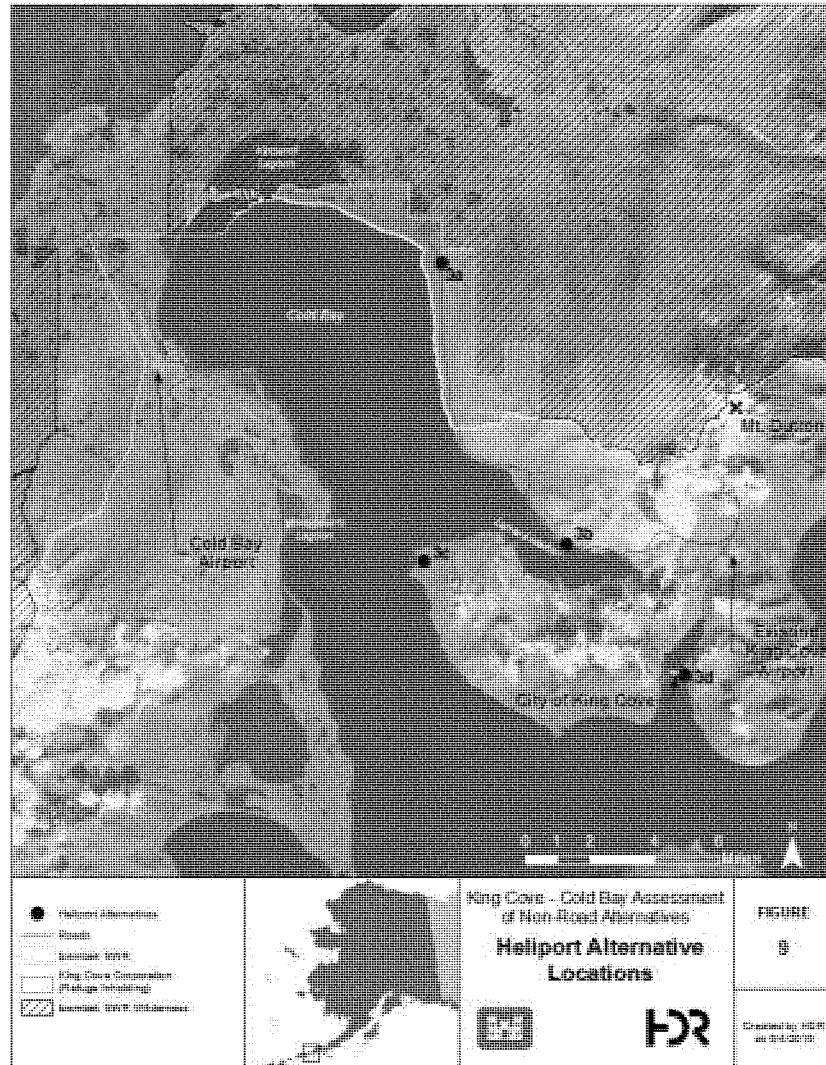


Figure 9. Heliport Alternative Locations

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6.2 Detailed Descriptions—Helicopter Alternatives

The new heliport would be designed in accordance with FAA Advisory Circular No. 150/5390-2C, *Heliport Design*, with lighting and navigation aids appropriate for operation in Visual Flight Rules (VFR) conditions. Figure 10 illustrates the basic layout. The dimensions of the heliport would be based on a Design Helicopter; i.e., the most demanding helicopter anticipated to use the facility. In this case, the Design Helicopter would be the U.S. Coast Guard (USCG) HH-60 (currently based in Kodiak). Although the Bell 212 (or similar) helicopter would provide routine service between King Cove and Cold Bay, it is anticipated that the USCG HH-60 would operate occasionally at King Cove in conjunction with search and rescue missions or if the Bell 212 (or similar) was out of service. The hangar to support helicopter service would be sized to accommodate the Bell 212, because there should be no need to shelter the USCG helicopter in King Cove.

The following sections describe the four alternative sites and outline the advantages and disadvantages of each.

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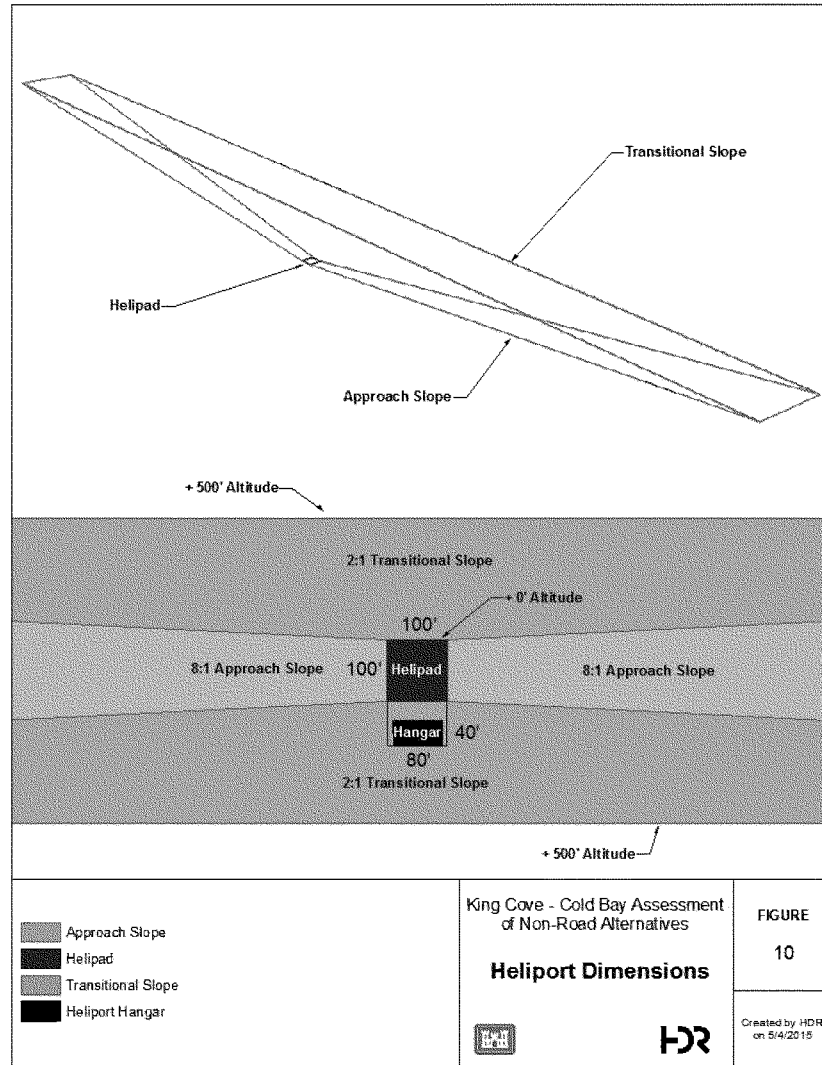


Figure 10. Heliport Dimensions

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6.2.1 Alternative 3a (Northeast Heliport)

This alternative provides a heliport at the existing (abandoned) hovercraft ramp on the northeast shore of Cold Bay. Passengers and crew would access the heliport via the existing 21-mile road from King Cove. Electricity for lighting and navigation aids is assumed to be generated on site.

This alternative may be able to incorporate the existing concrete hovercraft ramp into the design of the heliport, which could reduce construction costs. The cost estimate in this document does not reflect this potential cost reduction. A detailed verification of the usability of the existing concrete ramp for use in this alternative was beyond the scope of this assessment. However, this activity should be considered if this alternative is carried forward to a feasibility study. The approaches to this location are unobstructed. This site is accessible by an existing road.

Potential disadvantages of this site include its distance from King Cove. Access to this site requires maintenance of 16 miles of road beyond the existing King Cove Airport that are not currently maintained. The heliport owner would be required to ensure maintenance of the road if federal funds were used to construct the heliport.

Medevac travel time from King Cove to ANC from this location would require 3.1 hours, the longest time required for any heliport alternative. Appendix C provides a complete overview of medevac travel time for the marine, airport, and helicopter alternatives.

6.2.2 Alternative 3b (Lenard Harbor Heliport)

This alternative provides a heliport about 6 miles west of the existing King Cove Airport at an existing materials site near the head of Lenard Harbor. This is the heliport site identified in the *King Cove Access Project FEIS* (2003). Passengers and crew would access the heliport via an 11-mile road from King Cove, about half of which is currently maintained. Electricity for lighting and navigation aids is assumed to be generated on site.

This alternative would incorporate a cleared/filled area produced during construction of the existing road, possibly reducing construction costs. This site is accessible via the existing road.

Potential disadvantages of this site include a constrained location. The approaches to this location are partially obstructed. It is in terrain that could channel winds and trap clouds. Turbulence is likely to occur at this location whenever the prevailing north wind cascades over the mountainous terrain to the north. Access to this site would require the airport owner to ensure maintenance of about 6 additional miles of road if federal funds were used to construct the heliport.

Medevac travel time from King Cove to ANC from this location would require 2.6 hours. Appendix C provides a complete overview of medevac travel time for the marine, airport, and helicopter alternatives.

6.2.3 Alternative 3c (Peninsula Heliport)

This alternative provides a heliport on the west end of a peninsula directly east of Mortensen's Lagoon. Passengers and crew would access the heliport via a 22.5-mile drive from King Cove. Approximately 14 miles of the road currently exists. An additional 8.5 miles of new road would be

constructed through mountainous terrain. Electricity for lighting and navigation aids is assumed to be generated on site.

The approaches to this location are unobstructed. It is also free of terrain that could channel winds and trap clouds.

One disadvantage of this alternative is that access to the site would require construction of 8.5 miles of new road, which also would need to be maintained. The airport owner would be required to ensure maintenance of the road if federal funds were used to construct the heliport.

Medevac travel time from King Cove to ANC from this location would require 2.7 hours. Appendix C provides a complete overview of medevac travel time for the marine, airport, and helicopter alternatives.

6.2.4 Alternative 3d (King Cove Heliport)

This alternative provides a heliport in or adjacent to the community of King Cove. A site selection study would be necessary to determine the most appropriate location for the heliport. Passengers and crew would access the heliport by a relatively short access road of undetermined length.

Access to this location primarily would be via existing roads. Minimal road maintenance would be required to ensure access. Electricity is presumed available nearby.

Disadvantages of this site relate primarily to terrain. Approaches to this location are not unobstructed. It is located in terrain that could channel winds and trap clouds.

Medevac travel time from King Cove to ANC from this location would require 2.1 to 2.2 hours, depending upon whether the helicopter took a straight line route over the mountains or followed the coast west and then north to Cold Bay Airport. This is the least time required by any alternative, because there would be no road travel component. Appendix C provides a complete overview of medevac travel time for the marine, airport, and helicopter alternatives.

6.2.5 Comparison of Heliport Options

Table 7 provides a comparative summary of the relative pros and cons of the four heliport alternatives. This is meant to summarize the material above and include relative information on costs presented later in this document, but is not necessarily a complete list of criteria that should be used for selection of heliport locations. Rather, it is a tool to present a quick snapshot of some relative advantages and disadvantages.

Table 7. Summary Comparison of Heliport Alternatives

Alt.	Location	Use Existing Infrastructure	Un-obstructed Airspace	Weather Conditions	Use Existing Road	Travel Time for Medevac	M&O Cost	Available Electricity	Capital Cost	Sum
3a	Northeast	1	1	1	1	-1	-1	-1	1	2
3b	Lenard Harbor	1	-1	-1	1	0	0	-1	1	0
3c	Peninsula	-1	1	1	-1	-1	-1	-1	-1	-4
3d	King Cove	0	-1	-1	1	1	1	1	1	3

1=Favorable; 0=Neutral; -1=Unfavorable

6.3 Construction Cost and 75-Year Life-Cycle Cost

The construction cost at each alternative location, with hangar, would be approximately the same, at \$2.5 million (\$1.5 million for the heliport and \$1 million for the hangar). There may be small savings for Alternatives 3a and 3b, because they would use existing developments (former hovercraft terminal and former gravel extraction area).

Construction of the heliport would cost about \$150 per square foot. Construction of the hangar is estimated at \$300 per square foot.

The cost of Alternative 3c (Peninsula Heliport) would include a substantial additional expense, the construction of approximately 8.5 miles of single-lane roadway with turnouts at \$3,000,000 per mile, or \$25 million.

Table 8 summarizes the costs of the heliport alternatives. The table reports capital costs in 2015 dollars and uses the assumption that any of the heliport alternatives would be built in 1 year. O&M costs shown are the costs projected for the first year of operations, in 2015 dollars. The O&M costs were bundled with the capital costs and applied over 75 years, accounting for inflation, and then brought back to 2015 dollars using a discount rate to provide a net present value (cost) of each alternative. Note that this does not include provisions for periodic maintenance tasks such as replacement of the hangar or navigation system or repaving the heliport.

Table 8. Costs of the Heliport Alternatives (millions)

Description	Alt 3a	Alt 3b	Alt 3c	Alt 3d
Capital Cost	\$2.8	\$2.8	\$28.3	\$2.8
Annual Operations and Maintenance Cost	\$2.34	\$2.25	\$2.28	\$2.19
75-Year Life-Cycle Cost (Net Present Value)	\$78.3	\$75.3	\$99.1	\$73.5

Notes:

All costs are in 2015 dollars.

Capital costs include a complete heliport. Assumes no road construction necessary except under Alternative 3c; road construction accounts for the cost difference for Alternative 3c. Assumes electricity is generated on site.

O&M costs include heliport O&M (at 5% of heliport capital cost each year) and road O&M for the road segment dedicated to airport use.

The 75-year total cost is escalated to account for inflation over time and brought back to 2015 dollars.

This table presents the full costs of the alternative. It does not account for cost reductions that might be possible by using partially developed sites under Alternatives 3a and 3b.

Annual heliport operating and maintenance costs are based primarily on the assumption that the heliport owner would contract with a helicopter company for the helicopter, its pilot, and its mechanic at about \$2 million per year. The cost of maintaining the access roads to Alternatives 3a, 3b, and 3c are assumed to be a separate cost (not part of the helicopter contract) at about \$8,700 per lane mile per year.

6.4 Risks

Methods for assessing risk for all marine, airport, and helicopter alternatives are explained in Section 2. Risk assessment tables for all of the alternatives appear in Appendix A. Multiple types of risks were identified and ranked using a matrix (shown in Appendix A). This qualitative assessment resulted in an average risk level for each alternative. For the heliport alternatives, the average risk scores were:

- Alternative 3a (Northeast Heliport): 2.6—medium-serious
- Alternative 3b (Lenard Harbor Heliport): 2.5—medium-serious
- Alternative 3c (Peninsula Heliport): 2.6—medium-serious
- Alternative 3d (King Cove Heliport): 2.3—medium (+)

The risks identified in the assessment tables for each of the four heliport alternatives are nearly identical. Those considered to be of the greatest concern are discussed below.

As with the airport alternatives, the risks of night operations and air travel in general for the King Cove-Cold Bay area, as well as for the Aleutian Island region, are significant. Various sources describe the Aleutian Islands as the windiest and rainiest region in the United States. The mountainous terrain can cause dangerous turbulence, increased wind speeds due to venturi effects, and accumulation of clouds. These factors, together with the remoteness of both communities, place a premium on the appropriate implementation and use of technology, pilot training for good decision-making, and timely weather data collection and reporting.

The road between the City of King Cove and the heliport sites for Alternatives 3a and 3b passes through three possible avalanche areas, based upon a preliminary examination of aerial photography. Two of these areas are located along the road to the existing King Cove Airport. A possible third area is located about 5 miles west of the existing airport. Further information on the frequency of avalanches should be collected, but anecdotal accounts indicate that avalanches may not be annual occurrences. In addition to representing a risk to travelers on the road, an avalanche would effectively close the heliports until the debris could be cleared from the road. In addition to the two avalanche areas on the road to the existing King Cove Airport, about 8 miles of the unconstructed portion of the road needed for access to Alternative 3c would be susceptible to avalanches. Alternative 3d would be in or immediately adjacent to the community of King Cove and would be free of road risk and avalanche danger.

Animal behaviors are a concern for the safe operation of the heliports mainly due to the potential for conflicts with birds in the approach and departure airspace. Avoiding the creation of additional

water bodies through the use of best management practices during construction and the revegetation of disturbed terrain near the heliport would help reduce the concentration of birds near the heliport. In the case of Alternative 3d, care should be taken to locate the heliport in King Cove at least 10,000 feet from landfills, sewer lagoons, or waste from fish processing facilities (FAA AC 150/5200-33B).

Securing construction funding would be critical to the success of any alternative. The most likely source of funding for the heliport would be a grant from the FAA AIP. Eligible grant recipients would include DOT&PF, AEB, or the City of King Cove. Acceptance of an AIP grant carries with it many obligations, such as ensuring the long-term support of the facility, which would include the maintenance of any associated single-purpose heliport access roads. For Alternatives 3a, 3b, and 3c, this would include the cost of maintaining approximately 16, 6, and 9 miles, respectively, of roadway beyond the existing airport. Given recent reductions to the state operating budget, this could be problematic.

Although the distances from the heliports to Cold Bay Airport vary, the duration of the helicopter flight would be relatively brief. The time required for a passenger to travel from King Cove to Cold Bay Airport and on to Anchorage is determined in large part by the amount of road travel required. At an assumed speed of 20 miles per hour, the trip by road from King Cove to Alternative 3a would take about 1 hour. Road travel to Alternatives 3b and 3c would require traveling 30 and 40 minutes, respectively. Because Alternative 3d is in or very near the community of King Cove (exact location to be determined), road travel would be almost eliminated, and the length of time required to reach Anchorage would be the lowest of any alternative. The elimination of the road segment, including the time needed to drive it and the potential risk of avalanche, ice, or snow on it, is the primary reason for the slightly lower average risk determined for Alternative 3d when compared to other alternatives.

6.5 Dependability

As with the airport alternatives, weather is the chief determinant of dependability of helicopter access in the Aleutian Islands region. How weather affects the safety and operability of heliports within the region is highly site-specific. Because King Cove Airport does not have automated weather data collection equipment, weather data for Cold Bay Airport were used as a proxy for this project. As with the airport alternatives, wind speeds are an important consideration in determining dependability. Unlike the airport alternatives, however, the heliport alternatives and the leased helicopter service are assumed to operate under VFR only, as is the case with the existing helicopter contract AEB holds for access to the Akutan/Akun Island airport. It would not incorporate navigation aids to allow the helicopters to function in low- or “no”-visibility conditions. Cloud cover increases and visibility decreases in the Aleutian region in summer. Poor visibility is expected to have an adverse effect on dependability in both the winter (10 percent) and the summer (15 percent) at each of the alternative heliport sites. Further investigation may determine that appropriate electronic navigation aids are available and compatible with helicopters offered as part of a leased helicopter service.

Conditions at the Alternative 3a site are anticipated to be somewhat similar to those at Cold Bay, except that topography south and southeast of the new site may contribute to turbulence and wind gusts. Snow events and avalanche-prone areas on the 21-mile access road may reduce dependability an additional 5 percent, but only in winter. Average dependability of access via the Alternative 3a heliport throughout the year is expected to be about 82.6 percent, varying from a high of 85 percent in the summer to a low of about 79 percent in some of the winter months. These percentages are based on wind data, adjusted for summer cloud cover and winter avalanche or snow events.

The topography adjacent to heliport sites 3b, 3c, and 3d is mountainous, unlike the terrain near Cold Bay Airport. Wind in these locations is likely to be accelerated by venturi effects and generate considerably more turbulence than might be expected at Cold Bay Airport. The mountains may also affect the accumulation or departure of cloud cover differently. The chief executive officer for PenAir has been quoted as saying that, on an annual basis, up to 30 percent of scheduled PenAir flights have been cancelled due to weather considerations. PenAir provided the Medallion Foundation with guidance to help identify wind regimes that represent hazardous conditions at King Cove Airport. Given that Alternatives 3b and 3c have similar settings and are reached by traveling access roads of significant length, the dependability assessments for each are similar. The annual average dependability is estimated to be about 67.5 percent varying from a high of 75 percent in the summer to a low of about 60 percent in some of the winter months. Dependability for Alternative 3d is somewhat better, because the access road to the heliport is assumed to be very short. Estimates are based on the PenAir assessment of 70 percent, minus summer clouds and winter avalanche or snow events as appropriate. Dependability and wind data for all marine, airport, and helicopter alternatives appear in Appendix B.

Table 9 shows dependability of the heliport alternatives, by month.

Table 9. Heliport Alternatives, Dependability by Month (%)

Alt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
3a	79.6	79.2	79.2	85	85	79.8	85	85	85	79.4	85	84.5	82.6
3b	60	60	60	75	75	75	75	75	75	60	60	60	67.5
3c	60	60	60	75	75	75	75	75	75	60	60	60	67.5
3d	65	65	65	75	75	75	75	75	75	65	65	65	70

6.6 Other Considerations

While this document generally assumes the new hangar, the helicopter, and the crew would be based on the King Cove side of the bay, it would be possible to locate them at the Cold Bay Airport. The location of the hangar would not affect the time required to medevac a patient to Anchorage unless the heliport and hangar were co-located in King Cove. For the other heliport locations, travel by the patient from King Cove to the heliport and the helicopter's flight from the hangar to the

heliport would occur at about the same time. The following sections present brief consideration of the pros and cons of the hangar location.

6.6.1 Helicopter Hangar on the King Cove Side of the Bay

This alternative does not require the helicopter to cross the open water of Cold Bay from Cold Bay Airport to pick up passengers/patients departing King Cove. The helicopter flight and maintenance crew would likely lodge in King Cove, regardless of whether the heliport were in King Cove or at one of the remote sites. This leads to the pros and cons of this option:

Pro: If the both the King Cove heliport and the hangar were located in King Cove, this alternative would achieve the lowest overall travel time required for medevac and would somewhat facilitate logistical considerations for the helicopter flight and maintenance crew, who would lodge in King Cove.

Con: If the hangar were located at one of the more remote sites on the King Cove side of the bay (i.e., not in King Cove), the helicopter flight and maintenance crew would need to travel to the heliport for flight preparations and helicopter maintenance, which would be more time-consuming overall and could delay medevac flights slightly.

6.6.2 Helicopter Hangar at Cold Bay Airport

Pro: If an existing hangar facility at Cold Bay Airport were available for the helicopter, capital costs could be reduced.

Con: Medevac flights would have to transit to King Cove before picking up a patient, increasing response time. If the King Cove heliport were located at one of the more remote sites, this disadvantage would be negated—the helicopter could easily cross the waterbody of Cold Bay in the time required for the patient to reach one of the remote heliport sites—but the response time still would be greater than if the hangar were in King Cove.

Table 10 summarizes the positive and negative aspects of the hangar locations of the heliport alternatives.

Table 10. Pros and Cons of Hangar Locations

Alt		Flying Time for Medevac	Facilitates Crew Logistics	Capital Costs	Sum
Located on King Cove Side of the Bay					
3a	Northeast Heliport	0	-1	-1	-2
3b	Lenard Harbor	0	-1	-1	-2
3c	Peninsula Heliport	0	-1	-1	-2
3d	King Cove Heliport	1	1	-1	1
Located at Cold Bay Airport					
	Cold Bay Airport	-1	1	1	1

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King Cove-Cold Bay Assessment of Non-Road Alternatives

Appendix A

Risk Matrix and Risk Assessment Tables

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Risk Assessment Matrix				
Likelihood	Severity			
Frequent A	Negligible IV	Marginal III	Critical II	Catastrophic I
Probable B				High 4
Occasional C			Serious 3	
Remote D		Medium 2		
Improbable E	Low 1			

Severity Scale Definitions	
Catastrophic	Results in fatalities and/or loss of the system.
Critical	Severe injury and/or major system damage.
Marginal	Minor injury and/or minor system damage.
Negligible	Less than minor injury and/or less than minor system damage.

Likelihood Scale Definitions	
Frequent	Individual Fleet Likely to occur often.
Probable	Individual Fleet Continuously experienced Will occur several times.
Occasional	Individual Fleet Likely to occur sometime. Will occur several times.
Remote	Individual Fleet Unlikely to occur, but possible.
Improbable	Individual Fleet Unlikely but can reasonably be expected to occur. So unlikely, it can be assumed it will not occur.
	Fleet Unlikely to occur, but possible.

Source:
U.S. Forest Service and Bureau of Land Management. April 2010.
Aviation Risk Management Workbook.

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Qualitative Risk Assessment Alternative 1a - Northeast Ferry									
Risk	Categories *	Hazards	Mitigation	Post-Mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Long-Term Operational Funding	Financial	Annual maintenance and operations expenses could exceed available funding	Annual ferry operating costs can be partially offset by passenger fares with scheduled ferry service, as well as usage fees for medevac	Probable	Catastrophic	High	Based on assumption that AEB would be responsible for subsidies needed and on recent AEB experience with hovercraft and helicopter.	
7	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BLP's and design approaches with least amount of environmental impact	Probable	Negligible	Medium	Permitting for marine structures could take up to a year depending on permit requirements and regulatory hurdles.	
8	Vessel Maintenance	Operations	Dry dock required every 2 years, 40-day planned downtime, no vessel redundancy for unplanned maintenance	Contract a backup vessel and plan dry dock and maintenance during mild weather seasons with no sea ice risk	Occasional	Negligible	Low		
9	Faunal Response to Construction and Operations	Environmental	Disruption and displacement of wildlife during construction and ferry operations	Marine mammal monitoring during construction; construction mitigation methods to reduce environmental impact such as bubble curtains for pile driving	Probable	Marginal	Serious	Presence of certain marine species present in construction area during in-water work period could cause construction delays. Ferry service could disrupt certain migratory patterns.	

Qualitative Description of Alternatives for Northwest Ferry									
Rank	Category ¹	Narrative	Mitigation	Risk Rating				Comments	
				Low	Medium	High	Very High		
118	Uncoordinated Use by Non-Industrial Entity	Uncoordinated use by non-industrial entity	Ferry terminals of each end are made ready to ferry activity during use of ferry terminals by industrialized vessels; if not	Low	Low	Low	Low		
119	Capital Funding	Lack of project sponsor; competing federal funds; no local private	Provided coordination of industrial and non-industrial activity from regulations	High	High	High	High		
120	Total Tonnage Through Point Count to Anchorage	Time sensitive medical collection	Efficient transfer between modes; use of best medical technologies on route	High	High	High	High		
121	Costing	Uncertain health maintenance; delays in reporting conditions	Staggered operational funding for testing and equipment	High	High	High	High		Cost used to implement maintenance and related vessel changes
Average Risk Score									1.4

¹Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

Qualitative Risk Assessment Alternative 1b - Lenard Harbor Ferry									
					Post-mitigation				
	Risk	Categories*	Hazards	Mitigation	Likelihood	Severity	Outcome	Score	Comments
1	Night Ops - Environmental risks	Life-Safety, Operations	Missing / damaged or power loss to nav aids and dock lights	Emergency response plan, use of electronic chartplotting systems and GPS with hazards identified	Remote	Marginal	Medium	2	
2	Night Ops - Physiological hazards	Life-Safety, Operations	Incidents or errors caused by physiological challenges (circadian rhythm deviations, impaired vision, fatigue)	Education and training, implement crew management procedures and relief crew members	Occasional	Critical	Serious	3	Costs and availability of relief crew members questionable for this region.
3	Weather - Ferry travel	Life-Safety, Operations	High winds or extreme wave conditions that could blow the vessel off course or capsize the vessel	Restrict operations based on weather conditions	Remote	Catastrophic	Serious	3	Assume ferry can operate 99% of the time based on weather limitations.
4	Weather - Road travel	Life-Safety, Operations	Heavy snow and avalanches could make the road impassable or extremely hazardous between King Cove and the ferry terminal	Staffing, equipment, and operational funding for road maintenance	Occasional	Critical	Serious	3	Assume road is passable 95% of the time, with 5% downtime due to avalanches or heavy snow.
5	Sea Ice	Operations	Lenard Harbor historically known for icing over	Requires Ice Class A0 vessel to safely navigate Lenard Harbor	Occasional	Negligible	Low	1	Less chance of encountering sea ice with the avoidance of Lenard Harbor and terminals located sufficiently offshore to avoid most ice near shoreline.

Qualitative Risk Assessment Alternative 1b - Lenard Harbor Ferry									
Risk	Categories*	Hazards	Mitigation	Post-Mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Long-Term Operational Funding	Financial	Annual maintenance and operations expenses could exceed available funding	Annual ferry operating costs can be partially offset by passenger fares with scheduled ferry service, as well as usage fees for medevac	Probable	Catastrophic	High	Based on assumption that AEB would be responsible for subsidies needed and on recent AEB experience with hovercraft and helicopter	
7	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BMPs and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	Permitting for marine structures could take up to a year depending on permit requirements and regulatory hurdles	
8	Vessel Maintenance	Operations	Dry dock required every 2 years, 40-day planned downtime, no vessel redundancy for unplanned maintenance	Contract a backup vessel and plan dry dock and maintenance during mild weather seasons with no sea ice risk	Occasional	Negligible	Low		
9	Faunal Response to Construction and Operations	Environmental	Disruption and displacement of wildlife during construction and ferry operations	Marine mammal monitoring during construction; construction mitigation methods to reduce environmental impact such as bubble curtains for pile driving	Probable	Marginal	Serious	Presence of certain marine species present in construction area during in-water work period could cause construction delays. Ferry service could disrupt certain migratory patterns	
10	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Ferry terminals at each end of route likely to have security fencing; use of ferry terminals by unauthorized vessels is low	Remote	Negligible	Low		

Qualitative Risk Assessment Narrative Risk Description		Risk Significance			
Risk	Description	Mitigation	Risk Significance		
			Unmitigated	Mitigated	Residual
(1) Equipment failure	Equipment failure	Equipment failure	High	Medium	Low
(2) Total Transit Time (King Cove to Anchorage)	Transit time	Transit time	High	Medium	Low
(3) Fueling	Fueling	Fueling	High	Medium	Low
Total Risk Score			12.0	6.0	3.0

*Life Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

Qualitative Risk Assessment Appendix A: Cold Bay					
Risk	Category	Scenario	Probability		
			Frequency	Consequence	Overall
1	Flight Ops	Life-Safety Operations	High	High	High
2	Flight Ops - Physiological Hazards	Life-Safety Operations	High	High	High
3	Weather - Flight Ops	Life-Safety Operations	High	High	High
4	Weather - Road Travel	Life-Safety Operations	High	High	High
5	Small Boat	Operations	High	High	High

Qualitative Risk Assessment Alternative 1c: Direct Ferry									
Risk	Categories ¹	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Long-Term Operational Funding	Financial	Annual maintenance and operations expenses could exceed available funding	Annual ferry operating costs can be partially offset by passenger fares with scheduled ferry service, as well as usage fees for medevac	Probable	Catastrophic	High	Based on assumption that AEB would be responsible for subsidies needed and on recent AEB experience with hovercraft and helicopter.	
7	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BMP's and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	Permitting for marine structures could take up to a year depending on permit requirements and regulatory hurdles	
8	Vessel Maintenance	Operations	Dry dock required every 2 years, 40-day planned downtime. No vessel redundancy for unplanned maintenance	Contract a backup vessel and plan dry dock and maintenance during mild weather seasons with no sea ice risk	Occasional	Negligible	Low		
9	Faunal Response to Construction and Operations	Environmental	Disruption and displacement of wildlife during construction and ferry operations	Marine mammal monitoring during construction; construction mitigation methods to reduce environmental impact such as bubble curtains for pile driving	Probable	Marginal	Serious	Presence of certain marine species present in construction area during in-water work period could cause construction delays. Ferry service could disrupt certain migratory patterns.	
10	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Ferry terminals at each end of route likely to have security fencing; use of ferry terminals by unauthorized vessels is low	Remote	Negligible	Low		

Qualitative Risk Assessment Appendix A: Direct Effects									
Risk	Category	Description	Potential Impacts				Mitigation		
			Positive	Neutral	Negative	Uncertain	Prevention	Reduction	Residual
11	Capital Funding	Loss of project funding, including National, State, or local projects	Increased availability of funding from other sources				Identify and secure funding from other sources		
12	Trade Travel Time Disruption (Wing Coast to Anchorage)	Loss of project funding, including National, State, or local projects	Increased availability of funding from other sources				Identify and secure funding from other sources		
13	Travel Time	Loss of project funding, including National, State, or local projects	Increased availability of funding from other sources				Identify and secure funding from other sources		
*Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other									

Qualitative Risk Assessment Alternative 3b - 3000 Road Route						
Risk	Magnitude	Frequency	Severity	Mitigation	Risk Rating	
					Before	After
1 High-Cost Environmental Risk	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	Highly probable impacts and long-term effects on the environment	High	High
2 High-Cost - Psychological Hazards	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	Incidents of serious illness by psychological challenges, including drug or substance, impaired vision, fatigue	High	High
3 Moderate - Air Emissions	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	High concentrations of pollutants and high levels of particulate matter, including diesel exhaust, may cause respiratory and other health effects	High	High
4 Moderate - Road Noise	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	High concentrations of pollutants and high levels of particulate matter, including diesel exhaust, may cause respiratory and other health effects	High	High
5 Low-Cost - Road Noise	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	High concentrations of pollutants and high levels of particulate matter, including diesel exhaust, may cause respiratory and other health effects	High	High
6 Low-Cost - Road Noise	Life-Safety, Operations	Life-Safety, Operations	Life-Safety, Operations	High concentrations of pollutants and high levels of particulate matter, including diesel exhaust, may cause respiratory and other health effects	High	High

Qualitative Risk Assessment Alternative 2a - 5,000-foot Runway									
Risk	Categories *	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Probable	Negligible	Medium	2	Permitting could take up to 3 years depending on permit requirements and regulatory hurdles.	
7	Long-Term Management Response	Regulatory	Refuge may need to update current plan	Occasional	Negligible	Low	1		
8	Faunal Response to Construction and Operations	Environmental	Animals on runway or in airspace; changes in nesting/feeding behaviors	Occasional	Critical	Serious	3		
9	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Remote	Negligible	Low	1		
10	Capital Funding	Financial	Lack of project sponsor; competing federal, State, or local priorities	Remote	Catastrophic	Serious	3		
11	Total Travel Time Required (King Cove to Anchorage Hospital)	Life-Safety, Operations	Time-sensitive medical conditions	Frequent	Marginal	Occasional	2	Alt 2a delivers medevac patient to Anchorage about 40 minutes quicker than Alt 2b.	
12	Liability	Other	Lapses in facility maintenance; delays in reporting conditions	Remote	Negligible	Low	1	Likely a State-owned facility.	
Average Risk Score								2.4	

*Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

Summary of Risk Assessment Alternative 2b - 3,000 Road Runway					
Risk		Category	Source	Impacts	Probability
1	High Ops - Environmental	Life-Safety, Operations	Loss of navigational aids, loss of power, loss of communication, loss of navigation	Temporary suspension of operations, loss of navigation, loss of communication, loss of power, loss of navigation	Low
2	High Ops - Environmental	Life-Safety, Operations	Loss of navigational aids, loss of power, loss of communication, loss of navigation	Temporary suspension of operations, loss of navigation, loss of communication, loss of power, loss of navigation	Low
3	Medium - Air Traffic	Life-Safety, Operations	Loss of navigational aids, loss of power, loss of communication, loss of navigation	Temporary suspension of operations, loss of navigation, loss of communication, loss of power, loss of navigation	Low
4	Medium - Road Travel	Life-Safety, Operations	Loss of navigational aids, loss of power, loss of communication, loss of navigation	Temporary suspension of operations, loss of navigation, loss of communication, loss of power, loss of navigation	Low
5	Long-Term Operational Funding	Financial	Loss of navigational aids, loss of power, loss of communication, loss of navigation	Temporary suspension of operations, loss of navigation, loss of communication, loss of power, loss of navigation	Low

Qualitative Risk Assessment Alternative 2b - 3,500-foot Runway									
Risk	Categories*	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BMPs and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	Permitting could take up to 3 years depending on permit requirements and regulatory hurdles.	
7	Long-Term Management Response	Regulatory	Refuge may need to update current plan		Occasional	Negligible	Low		
8	Faunal Response to Construction and Operations	Environmental	Animals on runway or in airspace; changes in nesting/feeding behaviors	Fencing, restrictions on aircraft operations; revegetation	Occasional	Critical	Serious		
9	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Patrols by airport maintenance staff; pilot reporting	Remote	Negligible	Low		
10	Capital Funding	Financial	Lack of project sponsor; competing federal, state, or local priorities	In-kind contributions of surface and sub-surface holdings from stakeholders	Remote	Catastrophic	Serious		
11	Total Travel Time Required (King Cove to Anchorage Hospital)	Life-Safety, Operations	Time-sensitive medical conditions	Efficient transfer between modes; use of best medical technologies	Frequent	Critical	Serious	Alt. 2a delivers medevac patient to Anchorage about 40 minutes quicker than Alt. 2b.	

Qualitative Risk Assessment Alternative 2b: 1,000 Road Runway									
Risk	Likelihood	Consequence	Mitigation	Residual	Significance	Potential Impacts			
						Positive	Highly Positive	Highly Negative	Comments
(12) Landfill	Low	Disposal of facility maintenance debris in neighboring community	Sufficient operational funding for existing and equipment	Low	Low	Highly Positive	Highly Positive	Highly Negative	Landfill is State-owned facility.
*Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other						Average Risk Score			
						3.5			

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Qualitative Risk Assessment Alternative 3a - Northeast Helipad									
Risk	Categories*	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Standard Permitting Process Required	Development/Permitting	Keep in mind BMPs and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	2	Permitting could take a year depending on permit requirements and regulatory hurdles.	
7	Long-Term Management Response	Regulatory	Refuge may need to update current plan	Occasional	Negligible	Low	1		
8	Faunal Response to Construction & Operations	Environmental	Animals on runway or in airspace, changes in nesting/feeding behaviors	Occasional	Negligible	Low	1	Helipad site is already disturbed (hovercraft ramp). Use existing access road.	
9	Uncontrolled Use by Non-Medical Evac	Operations	Patrols by airport maintenance staff, pilot reporting	Remote	Negligible	Low	1		
10	Capital Funding	Financial	Lack of project sponsor, competing federal, State, or local priorities	Remote	Catastrophic	Serious	3		
11	Total Travel Time Required (King Cove to Anchorage Hospital)	Life-Safety, Operations	Efficient transfer between modes; use of best medical technologies	Frequent	Critical	Serious	3	Longest total travel time (road + helicopter) to Cold Bay Airport required of all helipad alternatives	

Candidate Project Assessment Alternative 2a - Northern Village									
Risk	Subproject	Hazard	Mitigation	Residual Risk	Frequency of Occurrence				Comments
					Frequency	Severity	Consequence	Duration	
F22	Landfill	Other		Lapses in facility maintenance, training, and reporting can reduce the	High	Low	High	1	Highly dependent on State, AECB, or city oversight/operation.
F23	Industrial Construction Operations	Operations		Lapses in quality assurance, training, and reporting can reduce the	High	Low	High	1	
Average Risk Score					High	Low	High	1	

*Life Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

Qualitative Risk Assessment Alternative 15: Limited Access Highway									
Risk	Category	Severity	Frequency	Mitigation	Risk Rating				
					High	Medium	Low	Very Low	None
1	High Cycle - Environmental Issue	Life Safety, Operations	Medium	Medium	High	Medium	Low	Very Low	None
2	High Cycle - Physical Hazard	Life Safety, Operations	Medium	Medium	High	Medium	Low	Very Low	None
3	Medium - Air Emission	Life Safety, Operations	Medium	Medium	High	Medium	Low	Very Low	None
4	Medium - Road Travel	Life Safety, Operations	Medium	Medium	High	Medium	Low	Very Low	None
5	Long Term Operational Funding	Financial	Medium	Medium	High	Medium	Low	Very Low	None

Qualitative Risk Assessment Alternative 3b - Lenard Harbor Heliport									
Risk	Categories *	Hazards	Mitigation	Post-mitigation				Score	Comments
				Likelihood	Severity	Outcome	Score		
6 Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BMPs and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	2		Permitting could take a year depending on permit requirements and regulatory hurdles.
7 Long-Term Management Response	Regulatory	Refuge may need to update current plan		Occasional	Negligible	Low	1		
8 Faunal Response to Construction and Operations	Environmental	Animals on runway or in airspace; changes in nesting/feeding behaviors	Fencing, restrictions on aircraft operations; revegetation	Occasional	Negligible	Low	1		Heliport site is already disturbed (material site). Uses existing access road.
9 Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Patrols by airport maintenance staff; pilot reporting	Remote	Negligible	Low	1		
10 Capital Funding	Financial	Lack of project sponsor; competing federal, state, or local priorities	In-kind contributions of surface and sub-surface holdings from stakeholders	Remote	Catastrophic	Serious	3		

Qualitative Risk Assessment Appendix A-2: United States' History									
Risk	Description	Mitigation	Residual	Likelihood	Severity	Frequency	Consequence	Risk	Comments
11	Food Transit Time Delay and Pump Down to Avoid Storage	Life-Safety, Operations	Threats to health: foodborne illness	High	High	High	High	High	Threats to health: foodborne illness
12	Landfill	Other	Exposure to health: waste management, debris in surrounding communities	High	High	High	High	High	Threats to health: foodborne illness
13	High-impact Construction Performance	Operations	Exposure to health: availability, safety, and certification, access to priority resources, equipment and staff	High	High	High	High	High	Threats to health: foodborne illness
* Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other									

Qualitative Risk Assessment Alternative 3a: Perseus Ridge						
Risk	Category	Hazard	Mitigation	Consequence		
				Low	Medium	High
1 Night Ops - Environmental Issues	Life-Safety, Operations	Minor air quality impacts and lighting, with no adverse impacts on wildlife or subsistence	Employer responsible for use of lights. Control lighting systems.	Low	Low	Low
2 Night Ops - Physiological Hazards	Life-Safety, Operations	Incidents or stress caused by physiological challenges (exhaustion, hypothermia, dehydration, fatigue, impaired vision, hunger)	Education and training; equipment; crew management; rest periods and relief crew members	Low	Low	Low
3 Weather - Air Quality	Life-Safety, Operations	High operations in conditions beyond recommended and capacity of APU operations in this conditions	Prohibit planning, but may be allowed if fuel injector cannot be controlled, and if fuel injector and lighting systems	Low	Low	Low
4 Weather - Road Issues	Life-Safety, Operations	Heavy snow and ice conditions can make operations unsafe	Selfing, equipment, and operational handling for road in this weather	Low	Low	Low
5 Long-Term Operational Planning	Financial	Significant costs for operations and maintenance	Upper level, detailed plans	Low	Low	Low

Qualitative Risk Assessment Alternative 3c - Peninsula Heliport									
Risk	Categories*	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Keep in mind BLPs and construction techniques / design approaches with least amount of environmental impact	Probable	Negligible	Medium	Permitting could take a year depending on permit requirements and regulatory hurdles.	
7	Long-Term Management Response	Regulatory	Refuge may need to update current plan		Occasional	Negligible	Low		
8	Faunal Response to Construction and Operations	Environmental	Animals on runway or in airspace; changes in nesting/feeding behaviors	Fencing, restrictions on aircraft operations; revegetation	Occasional	Negligible	Low	Site is most environmentally sensitive of all heliport alternatives. Greenfield site. Requires construction of 8.5 miles of new access road.	
9	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Patrols by airport maintenance staff; pilot reporting	Remote	Negligible	Low		
10	Capital Funding	Financial	Lack of project sponsor; competing federal, State, or local priorities	In-kind contributions of surface and sub-surface holdings from stakeholders	Remote	Catastrophic	Serious	3	

Qualitative Risk Assessment Appendix A: Potential Impacts						
Risk	Threat/Source	Hazard	Potential			
			Low	Medium	High	Very High
F1	Total Travel Time Delays from Cans to Andromeda Hospital	Life-Safety, Operations	Threats to facility operations, use of back-up systems, and other impacts	Threats to facility operations, use of back-up systems, and other impacts	Threats to facility operations, use of back-up systems, and other impacts	Threats to facility operations, use of back-up systems, and other impacts
F2	Landfilling	Offshore	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities
F3	Emergency Contingency Operations	Operations	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities	Exposure to facility operations, impacts to surrounding communities
Average Risk Score						7.8

*Life-Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

Qualitative Risk Assessment Alternative A1: King Cove Road					
Risk	Likelihood	Severity	Mitigation	Residual	Comments
1 High-Cost Construction	High	High	Minor impact on road and bridge, but potential for increased cost.	Minor impact on road and bridge, but potential for increased cost.	
2 High-Cost Psychological Impact	High	High	Incidents or events caused by psychological stress or trauma, resulting in increased risk of injury or death.	Incidents or events caused by psychological stress or trauma, resulting in increased risk of injury or death.	
3 Weather - Air Quality	High	High	High concentrations of particulate matter, dust, and other pollutants in the air, resulting in increased risk of respiratory illness.	High concentrations of particulate matter, dust, and other pollutants in the air, resulting in increased risk of respiratory illness.	
4 Weather - Road Travel	High	High	Heavy snow and ice on the road, resulting in increased risk of accidents and delays.	Heavy snow and ice on the road, resulting in increased risk of accidents and delays.	
5 Long-Term Operational Impact	High	High	Long-term impact on the road and bridge, resulting in increased risk of structural failure.	Long-term impact on the road and bridge, resulting in increased risk of structural failure.	

Qualitative Risk Assessment Alternative 3d - King Cove Heliport									
Risk	Categories*	Hazards	Mitigation	Post-mitigation				Comments	
				Likelihood	Severity	Outcome	Score		
6	Standard Permitting Process Required	Development/Permitting	Standard permitting process required	Ramble	Negligible	Low	1	NEPA documentation likely would be Categorical Exclusion.	
7	Long-Term Management Response	Regulatory	Refruge may need to update current plan	Occasional	Negligible	Low	1		
8	Faunal Response to Construction and Operations	Environmental	Animals on runway or in airspace; changes in nesting/feeding behaviors	Occasional	Negligible	Low	1	Heliport site is already disturbed - in community core area. Use existing access road.	
9	Uncontrolled Use by Non-Medical Evac	Operations	Uncontrolled use by non-medical evac	Remote	Negligible	Low	1		
10	Capital Funding	Financial	Lack of project sponsor, competing federal, State, or local priorities	Remote	Catastrophic	Serious	3		
11	Total Travel Time Required (King Cove to Anchorage Hospital)	Life Safety, Operations	Time-sensitive medical conditions	Probable	Negligible	Medium	2	Shortest total travel time (road + helicopter) to Cold Bay Airport of all heliport alternatives.	

Qualitative Risk Assessment Alternative 3B: King Cove Airport									
Risk		Threats	Impacts	Significance	Measures	Residual Risk	Frequency	Severity	Consequence
P2	Landfill	Other	Lapses in facility maintenance, delays in reporting conditions	Minor	Sufficient operational funding for staffing and equipment	Low	Low	Low	Minor
P3	Hangar Construction	Operations	Lapses in building standards, materials, and equipment, delays in reporting conditions	Minor	Sufficient funding and equipment for building and operations	Low	Low	Low	Minor
Average Risk Score									
1.2									

"Life Safety, Life-Cycle, Development, Regulatory, Permitting, Environmental, Operations, Financial, Other

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King Cove-Cold Bay Assessment of Non-Road Alternatives

Appendix B

Wind Data



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Cold Bay Hazardous
Wind

2012												
	January	February	March	April	May	June	July	August	September	October	November	December
Perfect Number of Readings	744	686	744	720	744	720	744	744	720	744	720	744
Actual Number of Readings	735	687	743	720	743	720	743	743	718	743	717	741
Number of Non-Recorded Data Points	9	9	1	0	1	0	1	1	2	1	3	3
> 40 knots any direction	0.136%	0.908%	0.135%	0.000%	0.000%	0.000%	0.000%	0.000%	0.139%	0.404%	0.000%	0.405%
> 60 knots any direction	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2013												
	January	February	March	April	May	June	July	August	September	October	November	December
Perfect Number of Readings	744	672	744	720	744	720	744	744	720	744	720	744
Actual Number of Readings	742	667	741	718	728	707	733	732	717	744	717	743
Number of Non-Recorded Data Points	2	5	3	2	16	13	11	12	3	0	3	1
> 40 knots any direction	0.000%	0.000%	0.875%	0.000%	0.138%	0.424%	0.000%	0.000%	0.000%	0.403%	0.000%	0.135%
> 60 knots any direction	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014												
	January	February	March	April	May	June	July	August	September	October	November	December
Perfect Number of Readings	744	672	744	720	744	720	744	744	720	744	720	744
Actual Number of Readings	741	664	733	719	741	713	735	742	718	737	710	740
Number of Non-Recorded Data Points	3	8	11	1	3	7	9	2	2	7	10	4
> 40 knots any direction	0.135%	0.155%	0.273%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.141%	0.000%
> 60 knots any direction	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Combined Monthly Average												
2012 - 2014												
	January	February	March	April	May	June	July	August	September	October	November	December
> 40 knots any direction	0.090%	0.354%	0.367%	0.000%	0.046%	0.147%	0.000%	0.000%	0.046%	0.269%	0.047%	0.180%
> 60 knots any direction	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Average												

Note: Table reflects hourly readings recorded by Automated Weather Observing System equipment at Cold Bay Airport

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King Cove-Cold Bay Assessment of Non-Road Alternatives

Appendix C

Medevac Elapsed-Time Tables

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Estimated Medevac Travel Times, City of King Cove to Ted Stevens Anchorage International Airport (ANC)

	Distance (miles)	Speed (mph)	Time Required (hours)*	
Alternative 1a: Northeast Ferry				
King Cove to NE Boat Landing	21	20	1.1	
NE Boat Landing to CB Dock	6	11.5	0.5	Assumes 10-knot average cruising speed per Gliscen report in EIS appendix
CB Dock to Cold Bay Airport	1	20	0.1	
Cold Bay Airport to ANC (King Air)	630	330	1.9	
Total Time Required			3.5	
Alternative 1b: Lenard Harbor Ferry				
King Cove to Lenard Harbor Boat Landing	11	20	0.6	
Lenard Harbor Boat Landing to CB Dock	14	11.5	1.2	Assumes 10-knot average cruising speed per Gliscen report in EIS appendix
CB Dock to Cold Bay Airport	1	20	0.1	
Cold Bay Airport to ANC (King Air)	630	330	1.9	
Total Time Required			3.7	
Alternative 1c: Direct Ferry				
King Cove to KC Boat Landing	1	20	0.1	Assumes 8-knot average cruising speed based on half of trip at 6 knots in open water
KC Boat Landing to CB Dock	27	9	3.0	
CB Dock to Cold Bay Airport	1	20	0.1	
Cold Bay Airport to ANC (King Air)	630	330	1.9	
Total Time Required			5.0	
Alternative 2a: 5,000-foot Runway				
King Cove to New Airport	21	20	1.1	
New Airport to ANC	630	480	1.3	
Total Time Required			2.4	

	Distance (miles)	Speed (mph)	Time Required (hours)*
Alternative 2b: 3,500-foot Runway			
King Cove to New Airport	21	20	1.1
New Airport to ANC	630	330	1.9
Total Time Required			3.0
Alternative 3a: Northeast Heliport			
King Cove to Heliport	21	20	1.1
Heliport to Cold Bay Airport	9	80	0.1
Cold Bay Airport to ANC (King Air)	630	330	1.9
Total Time Required			3.1
Alternative 3b: Lenard Harbor Heliport			
King Cove to Heliport	11	20	0.6
Heliport to Cold Bay Airport	14	80	0.2
Cold Bay Airport to ANC (King Air)	630	330	1.9
Total Time Required			2.6
Alternative 3c: Peninsula Heliport			
King Cove to Heliport	14	20	0.7
Heliport to Cold Bay Airport	10.5	80	0.1
Cold Bay Airport to ANC (King Air)	630	330	1.9
Total Time Required			2.7
Alternative 3d: King Cove Heliport - Direct Flight Path			
King Cove to Heliport	0	20	0.0
Heliport to Cold Bay Airport	19	80	0.2
Cold Bay Airport to ANC (King Air)	630	330	1.9
Total Time Required			2.1



	Distance (miles)	Speed (mph)	Time Required (hours)*
Alternative 3d: King Cove Heliport - Coastal Flight Path			
King Cove to Heliport	0	20	0.0
Heliport to Cold Bay Airport	23	80	0.3
Cold Bay Airport to ANC (King Air)	630	330	1.9
Total Time Required			2.2

*Some totals may not be exact, due to rounding.

And were the people of King Cove consulted as that report was being prepared?

Secretary JEWELL. I'd have to go back and check with the Army Corps. I don't know the answer to that off the top of my head.

The CHAIRMAN. Okay, if you can get us an answer to that as well.

[The information referred to follows:]



THE SECRETARY OF THE INTERIOR
WASHINGTON
JUL 15 2015

The Honorable Lisa Murkowski
United States Senate
Washington, D.C. 20510

Dear Senator Murkowski:

Thank you for your letter dated June 10, 2015, regarding the most recent King Cove, Alaska medical evacuation (medevac). I recognize that the City of King Cove, like many rural communities throughout the State of Alaska, is faced with health and human safety challenges and I am very sympathetic to the individuals, medical personnel, and families involved with emergency rescue and transportation.

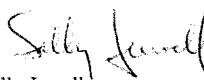
To that end, as you are aware, the Department of the Interior, through the U.S. Fish and Wildlife Service, contracted with the U.S. Army Corps of Engineers to assess three transportation options between the City of King Cove and the City of Cold Bay Airport that do not include a road through Izembek National Wildlife Refuge and associated designated Wilderness. Enclosed is the completed study titled *King Cove – Cold Bay: Assessment of Non-Road Alternatives*.

This assessment provides a high-level overview of the three non-road-access options for medevac from King Cove to Cold Bay and on to Anchorage: (1) ice-capable marine vessel, (2) fixed-wing aircraft/new airport, and (3) helicopter/heliport. Variations within each alternative address the location of the facilities and, to a lesser extent, type of equipment and facilities. This assessment does not provide a formal recommendation, but presents new and valuable information on the locations, cost, risks, and dependability of each.

I believe this assessment will be a useful planning tool for the community of King Cove and Aleutians East Borough as they consider the range of transportation options that are available to them. The options presented in the assessment warrant serious consideration. As you will see, several options offer a very high degree of dependability in all weather conditions and may have significant benefits to King Cove in addition to providing reliable emergency response capacity. I look forward to working with you and the local communities on further exploring these viable and beneficial alternatives.

As always, I appreciate your commitment to the people of Alaska and look forward to working with you on our many areas of shared interest. Please do not hesitate to contact me if you have any additional questions.

Sincerely,


Sally Jewell

Enclosure

The CHAIRMAN. And then, as I mentioned, you promised that you would work to address the situation of the people in King Cove. I do not see anything in this FY'17 budget to actually implement any of the ideas that were contained in the study of these alternatives.

So the question this morning is whether or not you are planning on doing anything in this year or is this a situation where you basically just run the clock and you leave the people of King Cove hanging?

Secretary JEWELL. Senator, I have no intention of leaving the people of King Cove hanging, and I would be delighted to work with you on a marine-based solution that was identified in the Army Corps report.

As you and I have talked and I know it is unlikely we're going to agree on this point, I do not believe it is appropriate to run a road through this very sensitive wilderness area and wildlife refuge that is a very narrow isthmus that was set aside, originally in the 40s, and made wilderness in the 80s and is an area of international environmental concern that the wildlife biologists agree would be really severely damaged by a single lane, gravel road.

And so——

The CHAIRMAN. A ten mile, one lane, gravel, non-commercial use road.

Secretary JEWELL. Correct.

The CHAIRMAN. In an area that has seen road traffic since World War II. What we are asking for the people of King Cove is a life-saving access to an all-weather airport that is an affordable solution as opposed to the alternatives that have been considered over the years and rejected as either unsustainable, unaffordable or just completely impractical.

Let me ask a question about the Fortymile area. This is actually the draft Eastern Interior Resource Management Plan and its designation of about 700,000 acres of the Fortymile River Mining District being designated as or identified as areas of critical environmental concern where the Department is considering closing the area to mining.

This was an area that was specifically kept open to mining by Congress under ANILCA when it was not included in the Yukon Charlie National Preserve. There are a host of concerns about these new regs that we are seeing coming out. I mentioned that these are the Reclamation cost estimates, Reclamation standards, new bonding processes and the turnover in our compliance staff making consistency with enforcement really challenging.

The budget notes that resource management plans provide the basis and this is a quote here, "Provide the basis for every BLM management action and are necessitated by changes in resource use and demands."

So the question for this area in the Interior is what changes in resources and the demands then in this Fortymile region necessitate this nearly 700,000 acre of Environmental Concern Management Plan? It is not just the Fortymile. It is the resource management plans for the Central Yukon. Again, where we are seeing these resource, these changes in resource use and demands that have somehow necessitated these actions within both the Interior,

the Eastern Interior resource management plan and the Central Yukon and the Bering Sea Western Interior.

We have had these conversations where you have folks out in the region, they have said we have been working as a small placer miner operating for decades. Tell me where the changes are that all of a sudden make this, "an area of critical environmental concern," that are not only limiting access and opportunity but potentially just shutting it all down.

Secretary JEWELL. Well Senator, with regards to the, specifically the Fortymile area Resource Management Plan, I've not reviewed it, nor had any input with the Alaska State Office for the BLM. So, I will—

The CHAIRMAN. I would ask you if you could, Madam Secretary, because again, 700,000 acres. It pretty much takes your breath away.

Secretary JEWELL. So I certainly will follow-up. But I will say this, that we are, we change our knowledge over time. We get better science. We understand the landscapes better. We understand the impact on the environment from historic uses and activities. And so, they are intended to be documents that are updated with current information.

I will look specifically into that and will get back to you with what changed on the landscape, how our knowledge changed, that resulted in the recommendations they have in that R and D.

The CHAIRMAN. And then if you could also look to what specific efforts BLM is making to ensure that the miners are apprised of what their obligations may be under your new enforcement procedures because it is not right. It is not appropriate that there is now, kind of, the waving of the wand, there is a new designation. And all of a sudden a small operator, who has been out there with his family for the past 25 years, you have regulators coming in saying you are in violation of all of this and we are going to slap you with a fine. So I would like to know what kind of outreach, what kind of communication is going on between BLM and those that are working out in the region. So if you can back to me on that one as well.

Secretary JEWELL. We will.

The CHAIRMAN. My last question for you this morning relates to the five-year OCS plan. You released the draft five-year plan over a year ago. That was actually last January.

We are sitting here with 2017 just now ten months away, so the question to you is when does Interior plan to release the final five-year plan?

Secretary JEWELL. So there's another bite at the apple. The draft proposed plan, as you pointed out, was released about a year ago. The proposed plan will be released in the coming weeks. I don't have a specific date for you, but it will be coming out relatively soon. We will take comments on that proposed plan.

The final plan, you know, our intent is to get it finished before the Administration's time ends here. So sometime around the end of the year you should see the final plan. But between the draft proposed plan and the proposed plan we've taken a tremendous amount of input including from industry. That will be reflected in

this plan. And then the final plan will be sometime around the end of the year.

The CHAIRMAN. Well, I appreciate that.

So then when the final plan is released and we are able to take a look at it I would hope that you will be able to commit to coming back before the Committee to testify about what it includes, if we decide that we will hold an oversight hearing on it. But obviously we need to receive it from you first.

Secretary JEWELL. I'm very happy to respond to your Committee in whatever way you like.

The CHAIRMAN. Okay. Good.

Secretary JEWELL. Thank you.

The CHAIRMAN. Senator Cantwell?

Senator CANTWELL. Thank you, Madam Chair.

I would like to go back to the self-bonding thing because you said something at the end of your testimony that I thought was important. Again, having experienced this myself where I mentioned Sarco left people high and dry in Tacoma. In that case I think we actually had to go through DOJ to make sure that we got the assets that we needed for the cleanup.

BLM has ended the practice of, you were mentioning, you said it and it really rang with me, of corporate guarantees for hard rock mining, the BLM rule that it could not do corporate guarantees unless they were secured forums for financing guarantees.

I think in 2003 CBO laid out the problem and said, "Unlike surety bonds, corporate guarantees do not allow the regulator to lay claim to specific financial assets in the event that an operator becomes insolvent and cannot meet its Reclamation obligations."

My understanding is that we, with these coal companies that are facing bankruptcy, that there is something like \$3 billion in liabilities. Is that a number that you or your team knows?

Secretary JEWELL. I haven't heard that number but we can check with the team and get back to you.

Mike, have you heard anything?

Mr. CONNOR. It sounds familiar, but we need to check the number.

Secretary JEWELL. We'll check.

Senator CANTWELL. Okay. It is a big number.

I certainly would like a follow-up from you on what we plan to do to end this kind of self-bonding approach, because I just think it is putting too much at risk for the taxpayers. And you have taken similar steps in hard rock mining, so I think we should do the same thing here.

Senator CANTWELL. This is not about leaving us with the deep pockets. As I have said, I have had my own experience where we literally had to go to DOJ and get them in an agreement about a bankruptcy to protect and make sure the cleanup was going to move forward and happen.

If I could, Mr. Connor, just one of the things that I keep becoming increasingly aware of is how much cooperation in our water agreements making traction. Do you think we should be doing more to incent from the Federal level this kind of integrated planning? I like the integrated planning because first of all, it is col-

laborative, and so it is more likely to succeed as opposed to lawsuits that take forever.

Oftentimes the approach is integrated so you are not really choosing one over another. You are basically saying here are the ways in which we can have a holistic approach to try to solve our problems with water and drought. So do you think we should be doing more to incentivize that?

Mr. CONNOR. Thanks for the question.

Absolutely. I think the Yakima Integrated Plan, that process, is a model not just for working through watershed challenges, but for any natural resource management whether it's public land management issues. It's the right process to bring folks together in a holistic and realistic manner and decide on a path forward that addresses, in that particular situation, both water supply, environmental needs, tribal responsibilities, etcetera.

The plan is realistic. It's expensive. And—but we are increasing our budget over time in just a three or 4 year period I think we have close to doubled the budget for Yakima enhancement activities. And we've put in additional resources in the 2016 spending plan with the additional resources that Congress wrote into Reclamation's budget to support that effort.

So we're moving forward with the state, who has put in a lot of resources into this whole process to implement the plan. And I think from that standpoint the stakeholders see the progress being made and it incents them to do more. And so, after our basin studies program we continue to invest in those. We'd like to take that Yakima model to other basins.

We've expanded in this budget our cooperative watershed program, doubled it to try and help fund local watershed groups that can build the relationships that can then enter into the planning process, the model.

Senator CANTWELL. So those funds could be used for that kind of integrated planning?

Mr. CONNOR. For the planning aspect, absolutely.

That's the goal, to help bring the different interests within a watershed together to help them start a planning process that we can take into basin studies or other means to develop a comprehensive approach. And then we can start to look at implementation strategies.

Senator CANTWELL. I wouldn't say that it is not a panacea. Your problems are not solved once you incent them, but I do think that everybody gets to the table and I think all the issues get on the table and then I think the management of the problem is based on science and facts and information. I think people buy into that process and then we get cooperation.

It's got to be, obviously, more cost effective than the lawsuits that we are seeing which are getting us nowhere on trying to either recharge aquifers or save water or save fish.

So anyway, I hope we can look at ways to continue to enhance the incentives to these various Western states and communities to work in a collaborative fashion on something that is integrated.

So thank you.

Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Cantwell.

We have a lot of work to do on some basic things, fire and water and others.

I know that colleagues will have additional questions for the record. I certainly do.

The CHAIRMAN. And I would just direct your attention, Secretary, to one specifically as it relates to earthquakes. As you had mentioned, just last week, I think, your earthquake initiative, and Alaska was not included as part of that. And it was, coincidentally, days after a 7.1 earthquake in South Central Alaska.

We are about to get some earth scope seismographs that will help us in the state. This is through a grant through the NSF, and I think that is going to help us as we look to improve our seismic and just get better understanding. But NSF funding runs out in two years, so we are going to be in a situation where these monitors are then moved from the state. I am trying to figure out some kind of collaborative way that we can work to provide for a level of continuation. So I would like to visit with some of your folks about that as a possibility and a prospect. We are, maybe because we are one fifth the size of the country, but we are more active from a seismic perspective than other states out there. So enlisting your support in that would be helpful as well.

Secretary JEWELL. Can I just respond quickly?

The CHAIRMAN. Madam Secretary, yes.

Secretary JEWELL. I completely agree. There's no question. I've visited Earthquake Park. I remember the earthquake in the 60s very clearly because we could feel it in my home community of Seattle, that nine plus magnitude earthquake. And, as I think you know, I did ask the USGS in this earthquake early warning system that we were addressing, where is Alaska? So it's a pilot project. The prototype is about to come out. We would love to include Alaska. It needs appropriate sensors. So we're very much of like mind there.

We'll be happy to work with the state. It's a prototype so if, you know, it may be a little less expensive to wait until it's to the next level, but whatever you need to do on the infrastructure. I know that's something that I support, the USGS supports, and we would welcome a joint effort to make that happen.

The CHAIRMAN. Good. I will look forward to working with you on that, and we have got some volcanoes that we have got to monitor as well.

Secretary JEWELL. Yes.

The CHAIRMAN. All kinds of fun challenges.

With that, we thank you for the time that you have given the Committee and we look forward to working with you.

Thank you.

We stand adjourned.

[Whereupon, at 12:25 p.m. the hearing was adjourned.]

APPENDIX MATERIAL SUBMITTED

**SENR Hearing on
FY 2017 Budget Request
February 23, 2016
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.

**SENR Hearing on
FY 2017 Budget Request
February 23, 2016
Questions for Secretary Jewell**

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.

**SENR Hearing on
FY 2017 Budget Request
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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 (DOF’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	4,847,256	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				
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.

NCSHPO

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Elizabeth Hughes, President
National Conference of State Historic Preservation Officers and
Maryland State Historic Preservation Officer
Testimony before the
U. S. Senate Committee on Energy and Natural Resources
The Honorable Lisa Murkowski, Chairwoman
The Department of the Interior's Budget Request for Fiscal Year 2017

February 23, 2016

Fiscal Year 2017 Historic Preservation Fund (HPF) Total Request:

- \$55 million for State Historic Preservation Offices (SHPOs), including \$5 million for a competitive grant program for finding and documenting America's historic places
- \$11.98 million for Tribal Historic Preservation Offices (THPOs)
- \$25 million for competitive grant programs related to Civil Rights
- \$3 million Historically Black Colleges and Universities (HBCUs) to document, interpret, and preserve the stories and sites associated with the Civil Rights Movement

Funded through withdrawals from the Historic Preservation Fund (16 USC 470*h*) U. S. Department of the Interior's National Park Service.

Unique and Successful Federal-State Partnership

Recognizing the importance of our national heritage, in 1966 Congress passed the National Historic Preservation Act (NHPA 16 USC 470), which established historic preservation as a priority of the federal government. Recognizing that States are the experts of their own history, the Act's authors directed federal entities charged with its implementation - the Department of the Interior and the Advisory Council on Historic Preservation - to partner with the States. Duties delegated to the SHPOs include: 1) locating and recording historic resources; 2) nominating significant historic resources to the National Register of Historic Places; 3) cultivating historic preservation programs at the local government level; 4) providing funds for preservation activities; 5) commenting on federal rehabilitation tax credit projects; 6) review of all federal projects for their impact on historic properties; and 7) providing technical assistance to Federal agencies, state and local governments and the private sector.

To help states do this work Congress established the Historic Preservation Fund (HPF) in 1976. These federal funds require a state match of at least forty percent, which again emphasizes the program's unique federal-state partnership. The HPF is funded from Outer Continental Shelf lease revenues - not tax dollars, so that the depletion of one non-renewal resource can be used to help preserve another non-renewable resource - our heritage.

Jobs, Economic Development & Community Revitalization

Historic preservation has stimulated economic growth, promoted community education and pride, and rescued and rehabilitated significant historic resources in communities throughout the country. In many cases, historic preservation combats the effects of blight and vacancy by using the historic built environment as a catalyst for community change. These changes result in historic downtown districts and neighborhoods that are dynamic destinations for visitors and residents alike.

The Federal Rehabilitation Tax Credit (HTC) program, administered by the State Historic Preservation Offices in cooperation with the National Park Service, is an important driver for economic development. Since inception, the HTC has rehabilitated more than 40,000 buildings, created more than 2.5 million jobs and leveraged \$117 billion in private investment nationwide. On average, the HTC leverages \$5 dollars in private investment for every \$1 dollar in federal funding creating highly effective public-private partnerships.

The renovation of the Arctic Club Hotel in Seattle is an example of the benefits of the HTC. The building was constructed in 1916 to house the Arctic Club, a long-standing institution founded by a group of prominent Seattle citizens, including many that had made their fortunes in the Alaska/Yukon gold rush. Its rebirth as the Arctic Club Hotel has not only restored a legendary historic building, but has transformed the building into a striking new Doubletree-branded hospitality facility in downtown Seattle. The former club rooms and lobby spaces of this National Historic Landmark have been renovated and repurposed as public rooms. The \$25.4 million redevelopment of the property benefited from \$3.2 million in federal historic tax credits. This project created 155 construction jobs and 222 permanent jobs. It did all of this while also helping to preserve a connection to the city's rich history.

Historic preservation also stimulates economic development through heritage tourism. Cultural and heritage travelers spend an average of \$994 per trip and contribute more than \$192 billion annually to the U.S. economy.¹ SHPOs are essential, ground level partners in identifying and interpreting the historic places that attract these visitors. A modest increase in SHPO funding would allow SHPOs to expand their public outreach and assistance efforts, enabling communities to take greater advantage of heritage tourism opportunities which lead to job creation, new business development and enhanced community pride.

The city of Nome, Alaska benefits from heritage tourism when travelers flock to Nome to watch the finish of the Iditarod Trail Sled Dog Race and take in the area's Gold Rush history, culture, and heritage. The Discovery Saloon in Nome, the oldest surviving building from the Alaska Gold Rush received help from the HPF. The building owners had invested time, talent and money into rehabilitating the property and the Alaska SHPO rewarded their efforts by assisting with each phase of the rehabilitation. The SHPO awarded small HPF grants to repair the walls, porch, windows, doors, and roof, bringing the oldest continuously occupied building in Nome back to its original glory.

¹ U.S. Cultural and Heritage Tourism Study (October 2009) conducted by Mandala Research, LLC for U.S. Cultural & Heritage Tourism Marketing Council, U.S. Department of Commerce, and Gozaic/Heritage Travel Inc., a subsidiary of the National Trust for Historic Preservation.

Finding and Saving America's Heritage

Historic preservation not only generates economic development and community revitalization, it also saves historic buildings and significant places. These sites represent the many people, places, and events that have shaped our national identity. The first step in preserving and protecting America's heritage is identifying it - which requires survey, documentation and stewardship and sharing of digital historic site data. Historic site survey data is the fundamental building block of our Nation's historic preservation program; yet this key program area is sorely lacking at the current level of appropriation. The NCSHPO recently surveyed its membership and found the following results to be very alarming:

- Only 55% of surveyed historic resources have been digitized
- 29.4% - Average percentage of each state surveyed for historic buildings
- 5.8% - Average percentage of each state surveyed for historic landscapes.
- 9.9% - Average percentage of each state surveyed for archaeological resources.
- 71% of States have more than 10,000 legacy resources in need of re-survey
- 66% of States report it would take 3+ years to complete survey & digitization
- 76% of States report that their survey & digitization programs are piecemealed
- 95% of States report lack of digital records hampers their ability to conduct project reviews

Adequate funding is essential for SHPOs to conduct historic resource identification, documentation and digitization activities. Having accurate, up-to-date, digitally accessible information on our Nation's historic resources would dramatically increase the efficiency and effectiveness of all local, state, and federal projects. From deciding on the design of local in-fill development, to state transportation planning projects, to federal large-scale energy projects and disaster recovery efforts – every single project, and the American people would benefit.

Once identified and documented, America's historic resources are primarily recognized at the local, state, and national levels by listing on National and State Historic Registers. State Historic Preservation Officers, through the authority of the National Historic Preservation Act assist, support and encourage communities with their efforts. National Register recognition by the Secretary confirms citizens' belief in the significance of their community.

The National Historic Preservation program is primarily one of assistance, not acquisition. The federal government does not own, manage, or maintain responsibility for most of the historic assets in the National Historic Preservation program. Instead, the program, through the SHPOs, provides individuals, communities, and local, state, and federal governments with the tools they need to identify, preserve, and utilize the historic assets of importance to them.

In addition to the SHPO funding, the NCSHPO supports the Tribal Historic Preservation Offices (THPO) request of \$11.98 million. THPOs assume the federal compliance role of the SHPO on their respective Tribal lands. The number of THPOs continues to increase annually. Funding increases are necessary to prevent a decrease in the average THPO grant.

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The NCSHPO also supports the Administration's request of \$25 million for competitive grants to preserve the sites and stories related to the Civil Rights movement and \$3 million for a similar program for Historically Black Colleges and Universities.

Historic Preservation Fund (HPF) Reauthorization

Authorization of the HPF expired on September 30, 2015. This testimony only touches on the invaluable economic and social value that historic preservation stimulates throughout our nation, all of which would not be accomplished but for the HPF. The NCSHPO greatly appreciates the Committee including a permanent reauthorization of the HPF in the Energy Policy Modernization Act, S. 2012, and the Sportsmen's Act of 2015, S. 556. NCSHPO would also be supportive of including a provision to reauthorize the HPF in legislation marking the centennial of the National Park Service. One way or another, in order to provide certainty for those involved in historic preservation, it is vital that the HPF be reauthorized as soon as possible.

State Historic Preservation Offices' Accomplishments

Although it has been authorized at \$150 million, appropriation levels have never approached that amount. Even with chronic underfunding, since its creation in 1976 through the end of 2014, the HPF has facilitated more than 1.75 million listings on the National Register, the survey of millions of acres for cultural resources, and \$117 billion in private investment through the Historic Tax Credit - which has rehabilitated 40,000 historic buildings and created 2.5 million local jobs.

Conclusion

On behalf of all 59 SHPOs, I'd like to thank you Chairwoman Murkowski, Ranking Member Cantwell, and members of the Senate Committee on Committee on Energy and Natural Resources for the opportunity to submit testimony.

Historic preservation recognizes that what was common and ordinary in the past is often rare and precious today, and what is common and ordinary today may be extraordinary - fifty, one hundred or five hundred years from now. I would like to thank the committee for their commitment to historic preservation. The federal government plays an invaluable role in preserving our nation's history and our collective sense of place. Through our partnership, SHPOs remain committed to working together to identify, protect, and maintain our Nation's heritage. Thank you.