

**THE STATUS OF THE BUREAU OF LAND MAN-
AGEMENT AND FOREST SERVICE'S EFFORTS TO
IMPLEMENT AMENDMENTS TO LAND USE
PLANS AND SPECIFIC MANAGEMENT PLANS
REGARDING SAGE GROUSE CONSERVATION,
AND THOSE AGENCIES' COORDINATION ACTIVI-
TIES WITH AFFECTED STATES**

HEARING
BEFORE THE
SUBCOMMITTEE ON
PUBLIC LANDS, FORESTS, AND MINING
OF THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED FOURTEENTH CONGRESS
SECOND SESSION

JUNE 28, 2016



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THE STATUS OF THE BUREAU OF LAND MANAGEMENT AND FOREST SERVICE'S EFFORTS TO IMPLEMENT AMENDMENTS TO LAND USE PLANS AND SPECIFIC MANAGEMENT PLANS REGARDING SAGE GROUSE CONSERVATION, AND THOSE AGENCIES' COORDINATION ACTIVITIES WITH AFFECTED STATES

TUESDAY, JUNE 28, 2016

U.S. SENATE,
SUBCOMMITTEE ON PUBLIC LANDS, FORESTS, AND MINING,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:36 p.m. in Room SD-366, Dirksen Senate Office Building, Hon. John Barrasso, Chairman of the Subcommittee, presiding.

**OPENING STATEMENT OF HON. JOHN BARRASSO,
U.S. SENATOR FROM WYOMING**

Senator BARRASSO. The Subcommittee will come to order. Thank you all for being here to testify. We appreciate you being here.

The purpose of today's hearing is to conduct oversight on the status of implementation of the Federal Sage Grouse Conservation and Management Plans under the jurisdiction of the Bureau of Land Management (BLM) and the Forest Service. This hearing is not designed to focus solely on the quality, timing or scope of the Administration's top/down approach to conservation plans, but today's oversight of the plan implementation does require recognition that the overlay of federal plans last September effectively pushed aside years of successful work by state and by private conservation in terms of their efforts.

As part of their joint announcement last September, the Fish and Wildlife Service, the BLM and the Forest Service used the creation of federal management plans as justification for the decision not to list the Greater Sage Grouse as endangered under the Endangered Species Act. This was despite the fact that the federal sage grouse plans had not yet been tested on the ground, let alone, finalized.

Today marks 280 days since that joint announcement. Since that time, no instructional memoranda has been finalized. No final field guides have been made public, and agency staff on the ground are

no closer to implementing the federal plans than they were last September.

In March, when instructional memoranda drafts were leaked following a meeting with the Western Governors' staffs, there was widespread concern that the documents would include inconsistent or unreasonable habitat targets that would not reflect on-the-ground range realities. These criticisms have plagued the federal plans from the beginning, in large part, because the federal plans, in many cases, failed to use successful state efforts as a road map for the federal plans.

Now, nine months after the Administration announced their sage grouse plans, implementation of the federal plans has not yet begun. Undoubtedly, the Administration witnesses will say that agencies are making progress by beginning habitat inventories to prepare for implementation.

In some states, like Wyoming, agency personnel have begun training to begin these habitat assessments this summer, but BLM and Forest Service personnel will be assessing sage grouse habitat conditions without instructional memoranda to inform them.

To me it seems that these inventories are simply a way to demonstrate false progress in implementation. I expect that some of the witnesses today will say the federal plans themselves contain flaws. This is something we have heard time and time again since the plans were finalized last fall. I also expect to hear that in some states the Administration failed to meet their own planning requirements like the use of best available science, and I expect to hear concerns about the landscape scale approach that the federal agencies took when developing their plans. I share all of these same concerns.

In this Subcommittee last week, we heard all of these things about the BLM's overhaul of their planning rule, called Planning 2.0. It seems that whether we are talking about the BLM's planning process or sage grouse conservation across these 11 Western states, there is significant opposition on the ground to federal action that advocates broad, sweeping policy direction mandated by Washington. These one-size-fits-all policies cripple public access to public lands and disenfranchise those who have a vested interest in healthy resources.

Future instructional memoranda will undoubtedly mention grazing, mineral extraction, oil and natural gas production and other public land uses. A CRS report from last Tuesday indicated that oil and natural gas production on federal lands is down 27 percent from 2010. I am concerned the BLM and the Forest Service plans will further reduce natural gas production on federal lands in Wyoming and other Western states.

In Wyoming and many of my colleagues' home states, their ranchers, their energy and mineral producers and their construction workers depend on production based on federal lands. In turn, the greater sage grouse depends on the people who depend on the land. For months, folks across the West have been using the phrase, "What's good for the bird, is good for the herd." The message is simple but clear.

Maintaining healthy habitat is good for wildlife, for recreationalists, for livestock and other land users, as well as sage

grouse. The use of best science that reflects true habitat needs is critical to ensure the plans can be implemented at a scale which benefits the bird and the ecosystem.

At this point I think it is clear that I have significant concerns about the lengthy delays in the instructional memoranda and the way agencies have addressed public outreach since last September.

I look forward to hearing from our witnesses today about their discussions during the last several months and the expected steps forward.

Senator Wyden.

**STATEMENT OF HON. RON WYDEN,
U.S. SENATOR FROM OREGON**

Senator WYDEN. Chairman Barrasso, thank you, and I want to say to you and to all our guests, the Finance Committee and the Intelligence Committee are two other Committees where I also have to be within the next 15 minutes. So I am going to be back and forth some, and I don't want any of you to walk away with a sense that somehow this is not of enormous importance because it is.

Oregonians, like those from Wyoming, are no strangers to the profound local changes that can come from listing an animal under the Endangered Species Act. So it should be no surprise that the possibility the greater sage grouse would be listed as a threatened or endangered species is important in Oregon and the fact is, it's important to lots of people across the West.

I recently had town hall meetings, for example, in Eastern Oregon. That is sage grouse country. There is a lot of work being done to implement sage grouse restoration plans. People asked me about it at the town meetings. Because of all this work, the U.S. Fish and Wildlife Service decided against listing the greater sage grouse. In my view, the decision not to list was a victory for all Westerners.

The Bureau of Land Management, the Forest Service's updated land use plans build off the local collaboration that I heard discussed just a few days ago in Eastern Oregon, were, in my view, critical factors in the decision to not list the bird.

Put simply, local folks got together to protect habitat to avoid a sage grouse listing. While no land use plan is perfect, I told everybody at those town meetings in Eastern Oregon that I'm certainly open to ideas and suggestions to plans to provide a road map for conservation, a way forward for ranchers and some real certainty for rural communities that rely on multiple uses of public lands.

In my view what the decision not to list the sage grouse was all about was, sort of, a referendum on the proposition that working together, collaborating, actually pays off. Coming up with locally-based solutions that serve the interests of everybody involved is government the way, people tell me at town hall meetings, it's the way government is supposed to work.

That is why, I believe, it's very troubling to see that some of our colleagues in the other body, in the House, somehow think it makes sense to seize defeat from the jaws of victory. This year, the House of Representatives in their defense authorization bill contains a sage grouse poison pill that would snuff out the years of collabora-

tion that went into avoiding an endangered species listing in the first place.

In addition to handing control of public lands over to the states, weakening the protections for the sage grouse, the decision prevents the Fish and Wildlife Service from revisiting its listing decision for at least ten years which are only going to increase the odds of an endangered species listing in the long term. This, in my view, is a frustrating and exasperating example of Congress making important endangered species decisions based on politics rather than science and collaboration.

The Bureau of Land Management and the Forest Service have worked together and with local stakeholders to create plans that are critical for ensuring continued multiple use of public lands throughout the West. That is almost an obligatory statement I make at a town hall meeting in rural Oregon is we ought to be building on the notion of multiple use of public lands in our part of the country, and that's what's being done here.

The collective efforts of local stakeholders protect sage grouse and habitat and ecosystems that are all so key to benefitting local, usually agricultural, economies and continuing multiple range land uses that almost always involve grazing and recreation.

So I thank the panel for their input. I look forward to working with my colleagues on this in a bipartisan manner. This Committee, colleagues, particularly for some of our newer members, has such a long, long history of working in a bipartisan way. This is where we wrote the Secure Rural Schools bill, for example. So we have a long history of working together in a bipartisan way to ensure the continued health and prosperity of our nation's public lands.

I especially want to thank Ms. Macdonald, with The Nature Conservancy, for making the trek. I apologize for the bad manners of coming in and out, but you've been on the ground, as I understand it, working on sage grouse issues in Harney County.

A lot of people in this room have probably heard of Harney County now as a result of the last few months. You are doing work to bring people together in Harney County to collaborate, to show that it's possible to find common ground, and I am going to do everything I possibly can to make sure that your hard work doesn't go by the boards.

Thank you, Mr. Chairman.

Senator BARRASSO. Thank you very much, Senator Wyden.

A number of members are equally pressed with time and multiple commitments, so I am going to give each member a chance to do any introductions of the guests who are here to testify or make a brief opening statement.

Senator Risch.

STATEMENT OF HON. JAMES E. RISCH, U.S. SENATOR FROM IDAHO

Senator RISCH. Thank you, Mr. Chairman. I do want to make a brief opening statement. I have other commitments like Senator Wyden, but I am going to be here for the afternoon. I am committed to this. The Intelligence Committee is important, but this is really important to Idaho.

First of all, let me say, when we get down to the question, Mr. Chairman, I am going to talk about where we are right now. But I want to talk a little bit about where we have been on this issue because I think it is important, as we go forward, to talk about what I think has been an abysmal handling of this issue by the Federal Government.

This has its beginnings with the prior Secretary of Interior, Secretary Salazar. He wisely, wisely, suggested that the states should get together and create a committee and do the best they can to come up with a plan to save the sage grouse.

Virtually everyone is in agreement that this magnificent bird should be protected to the degree that it has a sustainable future. In doing that, to make a long story short, I am going to use Idaho because our experience probably mirrors the experience in some other states. The Governor, who by the way is the second best governor our state has ever had—

[Laughter.]

Senator RISCH [continuing]. Wisely put together a collaborative committee to work on this particular issue and write a sage grouse plan. The method he used, I think, was outstanding because it is the method I used when we wrote the successful roadless rule when I was governor.

What it did is it brought everybody together at the table, everyone who would come, and indeed there were some who refused to come. But those who would come in a give and take process worked on the problem and came up with a plan.

Included in this group the Governor asked and the U.S. Fish and Wildlife Service agreed to have a person who had a seat at the table. They worked long and hard, contributing thousands and thousands of hours to producing a plan which everyone—and used, by the way, some of the best minds on sage grouse biology in America. We have some of those people actually in Idaho, because we have the bird there. They wrote a really good plan, we believed. We were well on our way, I thought, to success when all of a sudden the BLM said, well wait a minute, not so fast.

Now I was, still am, relatively new to this Federal business. But what I couldn't understand was why would the U.S. Fish and Wildlife Service, who had signed off on this plan, be trumped by the Bureau of Land Management? Mr. Lyons, you and I are going to have a little chat about that as we get into the questions.

Sally Jewell got appointed to be Secretary of Interior, and I remember the day I met her. She came to my office seeking confirmation and she says, "Well I'm Sally Jewell". I said, "How do you do?" Then I asked, "Do you know what a sage grouse is?" That was my first sentence. Her answer was "Well, no, I really don't." I said, "Well, you are going to before very long," and we gave her a sage grouse 101 session.

My biggest complaint was the fact, as we were right in the middle of the fact, that the BLM was trumping the U.S. Fish and Wildlife Service designation or affirmation that the Idaho plan was a good plan and should be accepted.

I said, "You know, Sally, when you were head of REI, if your marketing department and your economy department were butting heads over an issue, you, as the CEO would step in and resolve

that.” I said, “You need to do this here. If BLM can trump U.S. Fish and Wildlife Service, why do we have a U.S. Fish and Wildlife Service? We may as well just have one department.”

She liked that logic, and I really thought that we were on the way to resolving it. I felt at the beginning things were going well, but now we have regressed backwards again and then some other things really started to happen.

Part of my undergraduate degree was in land management, forest management, to be specific. But I did a fair amount in wildlife and in range management. I have never heard of a focal area, and that was a long time ago that I went to school on those things. So I asked around, what’s a focal area? Nobody had ever heard of a focal area.

But that thing was air dropped out of somewhere in one of these buildings, one of these great big buildings down here. I do not know why it was constructed, but it obviously blew up a lot of things.

In any event, I am frankly disgusted with the way the Federal Government has gone about this. I am disgusted with where we are right now, and I am very disenchanted with the Department of the Interior’s efforts which, I think, have frustrated the states’ efforts which have made really good faith, solid efforts to try to do what needs to be done for these birds.

In addition to that, the thing that has always bothered me and I have gone over it, is look, certainly there is science involved here, but it is not nuclear physics. We keep focusing on grazing, mining, transmission lines and everything else, when everyone knows that the problem is fire.

If you have fire and it destroys the expanses of bold, mature sage grouse that we have, the sage grouse is going to have a problem. Yet everything we argue about is around fire and really is not focusing on what can we do to prevent fires in these very, very critical areas.

I am hoping as we have this hearing that we will again refocus on what is the real problem for the sage grouse. With that, I have talked long enough.

Thank you very much, Mr. Chairman, and I am going to introduce our witness when we go to it.

Senator BARRASSO. Would any other Senators like to make an opening statement or introduction?

Senator Lee.

STATEMENT OF HON. MIKE LEE, U.S. SENATOR FROM UTAH

Senator LEE. I would just like to chime in and express how proud I am of my state. My state has been a real leader in finding ways to balance the need to protect the sage grouse and at the same time allow for economic activity.

I am proud to have the chance to introduce someone who has been at the center of that, Kathleen Clarke, who serves as the Director of Utah’s Public Lands Coordinating Office which is part of the Governor’s Office.

Having worked in the Governor’s Office during Governor Herbert’s predecessor’s time in office, Governor Huntsman, I am familiar with the important role that is played by that office, and I am

very proud to have Kathleen Clarke representing our state. She is someone who understands the competing needs and the need to orchestrate and harmonize the competing needs we have relative to our federal public lands.

Prior to her time in her current job she served as the Director of the Bureau of Land Management from 2001 until 2006, so I think Kathleen Clarke's unique experience as both a state official and a federal official uniquely qualifies her to be a witness in front of our Committee, and I am proud to introduce her today as a witness.

Senator BARRASSO. Thank you, Senator Lee.

If there are no other opening statements, it is now time to hear from our witnesses and we will start with Mr. Jim Lyons, who is the Deputy Assistant Secretary for Lands and Minerals of the Bureau of Land Management.

Welcome, Mr. Lyons, we appreciate you being here.

**STATEMENT OF JIM LYONS, DEPUTY ASSISTANT SECRETARY,
LAND AND MINERALS MANAGEMENT, U.S. DEPARTMENT OF
THE INTERIOR**

Mr. LYONS. Thank you very much, Mr. Chairman and members of the Subcommittee. I appreciate the opportunity to talk with you today about our efforts in the Bureau of Land Management to develop our sage grouse land use plans.

On September 22nd, 2015, Secretary Jewell announced the Fish and Wildlife Service had determined that in fact the greater sage grouse didn't warrant protection under the Endangered Species Act. That outcome was the result of an unprecedented effort to conserve the species and its habitat across its remaining range by federal agencies, state agencies and other partners. Secretary Jewell referred to the effort that we undertook as epic collaboration to reflect the working relationship among all parties.

Three elements of the strategy were key: strong federal plans, strong state and private land conservation, and, a new and integrated rangeland fire strategy to address the issues raised by Senator Risch.

BLM manages about 50 percent of the remaining greater sage grouse habitat, the Forest Service about eight percent and the remainder is in state and private management. So planning efforts on public lands are an essential element in developing the conservation that was necessary to achieve that "not warranted" determination.

I want to point out, however, that in 2008 Wyoming actually led the way in developing sage grouse conservation efforts through the development of the Sage Grouse Executive Order by Governor Freudenthal at the time which has been carried forward by Governor Mead. They continue to, I think, provide leadership in the development of a strategy that's based on the identification and protection of what they call core areas.

It was in late 2011 that Governor Mead, Governor Hickenlooper and Secretary Salazar convened a meeting of colleagues in the Western states and federal agencies and put together what's known as the Sage Grouse Task Force, and that's really been the con-

vening body that's coordinated much of the work that has gone forth over the past five years.

The BLM strategy was built on a foundation of sound science, developed by the states, federal agencies and academicians. I think most critical was the development of what's known as the Conservation of Objectives Team (COT) Report which was called for by the Sage Grouse Task Force, put together by the Fish and Wildlife Service, and really provided a solid science-based and peer-reviewed foundation for sage grouse plans.

The direction given to the sage grouse, excuse me, to the COT was to address the "unmet need for an action plan to ensure a viable sage grouse population in the West and preclude the listing of the species." The COT was composed of ten sage grouse experts from the states, including a former colleague of Kathleen and mine, John Harger, from Utah and five individuals from the Fish and Wildlife Service. The COT delivered their report in February 2013 and really, that report provided the blueprint for conservation strategy that was used to build the BLM and Forest Service plans.

Working from lands that were identified by the states through this COT effort, originally identified as PACs, or Priority Areas for Conservation, the plans were developed to address identified threats to the greater sage grouse, to avoid and minimize further degradation of priority habitat in those PACs and to restore degraded habitat areas.

The goal was to work with the states to provide the regulatory certainty the Fish and Wildlife Service needed to achieve the "not warranted" decision that they made. In this regard, the plans were built upon the approaches developed by the states and actually reflect their geography, the nature of the risks that affected each of the states and the economic issues of concern to the states.

As a result, the plans are not one-size-fits-all as they have been characterized but actually very different in their construction and their approach. We have the core area strategy in Wyoming. We have three different types of habitat designations in Idaho, not unlike the three types of roadless areas that were identified through the plan that you led, Senator Risch. We have the all lands all threats approach that was developed in Oregon. And Nevada developed its credit system from mitigating the impacts associated with greater sage grouse. So, each strategy was somewhat different but incorporated the basic objective of avoiding and minimizing impacts in priority habitat areas and protecting and restoring habitat where possible.

This was the foundation for developing the plans, but I want to emphasize the unprecedented collaboration that continues into implementation. Recently the Sage Grouse Task Force renewed its charter to continue its collaborative efforts. Through the Sage Grouse Task Force, the states are providing input on policy guidance to implement the BLM and Forest Service plans. We've gone through an extensive process of review and discussion, some debate, but I acknowledge that has delayed the release of some of the guidance, but I think it's improved the product and will certainly improve its implementation.

During this past April, stakeholder meetings in each of the sage grouse states were convened to discuss the plans, current thinking

about policy directions, listened to feedback and recommendations from all interested parties to help us move forward and to encourage further engagement in implementing the plans. We continue to work with the states to develop principles to guide mitigation which will be managed by each state in ways that offset habitat impacts and seek to optimize greater sage grouse benefits.

State and federal agencies are working to identify targeted opportunities to protect sage grouse landscapes and restore those areas that have been impacted by fire through something called the Conservation/Restoration Strategy. A new MOU has been signed between the BLM, the Forest Service and NRCS which will be implemented through the Intermountain Joint Venture that will further the collaboration between ranchers, private landowners, permittees and other stakeholders on the ground and the integrated rangeland fire strategy, which I want to acknowledge was really the brainchild of Governor Otter, who, as Senator Risch pointed out, highlighted the importance of fire as a threat to the sage grouse in the Great Basin. His comments at a WGA meeting caught the Secretary's attention and that led to the creation of a Secretarial Order and the rapid development of an integrated rangeland fire strategy plan which we are implementing with the states. And I want to thank the Committee and the members in general for their support of the resources we need to implement that plan. It's been very effective.

Through this collaborative approach to implementation, the plans will not only benefit the greater sage grouse, but we believe, will help to preserve the West's heritage of ranching and outdoor recreation, protect hundreds of wildlife species, including elk and pronghorn and mule deer, who also rely on sage grouse. We hope to avoid the need to list other species of concern in the sage brush ecosystem, which is widely acknowledged as the most endangered ecosystem in North America, and balance conservation objectives and development goals. The plan seeks to conserve the most important sage grouse habitat while still providing access to key resources. One example, the vast majority of areas with high potential for oil and gas and renewable energy development, are outside of priority sage grouse habitat areas. Most importantly, the plans recognize that a healthy economy and a healthy ecosystem are inextricably linked.

So I wanted to close by emphasizing that strong federal plans are one critical component but so too is the continued collaboration and coordination with the states, in particular, working to achieve outcomes on state and private lands. Effective conservation measures have been framed. Now it's our job to implement them in a similar, collaborative and coordinated fashion.

Again, I thank you for the opportunity to appear today, and I look forward to the comments of my colleagues and the discussion to follow.

[The prepared statement of Mr. Lyons follows:]

**Statement of
Jim Lyons
Deputy Assistant Secretary
Land and Minerals Management
U.S. Department of the Interior
Senate Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests, and Mining**

**Hearing on
BLM's Resource Management Plan Decisions to
Conserve the Greater Sage-Grouse**

June 28, 2016

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to discuss the Bureau of Land Management's (BLM's) role in the development and implementation of the conservation strategy for the Greater Sage-Grouse (GRSG). This landscape-scale, science-based, collaborative conservation strategy is the largest land conservation effort in U.S. history, and it will help us to conserve the species while facilitating responsible economic development on public lands.

Background

The BLM manages 1 out of every 10 acres of land across the United States (about 245 million acres), most of which is located in the 12 Western States, including Alaska. The Bureau also manages about 30 percent (700 million acres) of the nation's subsurface mineral estate.

In accordance with the Federal Land Policy and Management Act (FLPMA), the BLM sustains the health, diversity, and productivity of America's public lands for the benefit of present and future generations through its multiple use and sustained yield mandates. This means the BLM manages public lands for a broad range of uses, including energy development, livestock grazing, timber production, watershed protection, hunting and fishing, recreation, wildlife, and natural, scenic, cultural, and historic values. In so doing, public lands support the production of goods and services that create jobs and promote economic development in communities across all 50 states. Under FLPMA, the BLM is required to coordinate the development of its land use plans with state, local, and tribal governments, with public involvement, to guide the use and enjoyment of the diverse public lands and resources it is entrusted to manage.

The Greater Sage-Grouse is an iconic bird associated with the sagebrush landscapes of the West and its health is considered an indicator of the health of the landscape. Once seen in great numbers across these landscapes, the Greater Sage-Grouse currently occupies 56 percent of its original range because of habitat loss, degradation, and fragmentation. Of the remaining habitat, approximately 50 percent is on lands managed by the BLM, 8 percent is on lands administered by the U.S. Forest Service (Forest Service), and the rest is on other lands.

In 2010, the U.S. Fish and Wildlife Service (FWS or Service) determined that due to habitat loss and the absence of legal protections to address additional habitat destruction the Greater Sage-Grouse warranted protection under the Endangered Species Act (ESA), but its listing was precluded by other, higher priority species at the time. As a result of subsequent litigation, the FWS committed to determine whether the species was warranted for listing under the ESA by September 30, 2015.

For more than ten years, a diverse coalition of federal agencies – including the BLM, the FWS, the Forest Service, and the Natural Resources Conservation Service (NRCS) – and the Western Association of Fish and Wildlife Agencies (WAFWA), states, private landowners, and other stakeholders have worked tirelessly to conserve the Greater Sage-Grouse and prevent its demise. The purpose of these efforts was to work across the remaining range of the Greater Sage-Grouse, in collaboration with federal, state, and local partners and stakeholders, that would provide the legal mechanisms the Service had found to be absent and to avoid the need to list the species as threatened or endangered under the ESA. Building on these efforts, in September 2015, the BLM and Forest Service issued decisions that amended or revised 98 land use plans to conserve, enhance, and restore Greater Sage-Grouse habitat. When, on September 22, 2015, the FWS determined that the Greater Sage-Grouse did not need protection under the ESA – a decision that was announced in Denver, Colorado by Secretary of the Interior Sally Jewell and Governors Mead of Wyoming, Hickenlooper of Colorado, Sandoval of Nevada, and Bullock of Montana, that objective was achieved.

Federal Planning Efforts

Across ten western states, the Greater Sage-Grouse conservation plans contain land and resource management direction on approximately 67 million acres of the Greater Sage-Grouse's remaining habitat on BLM-administered lands.

The process leading up to the issuance of the BLM's and Forest Service's land use planning decisions was years in the making. It involved early analysis and policy guidance developed by the BLM and WAFWA, which includes the directors of each western state fish and game agency; the establishment of the Sage-Grouse Task Force, chaired by Governors Mead and Hickenlooper and the Director of the BLM; subsequent analysis, technical support, and guidance by the U.S. Geological Survey (USGS) and the FWS; and the direct engagement of individual states and stakeholders in developing the plans.

Early BLM & WAFWA Analysis & Policy Guidance

For more than a decade, the BLM and WAFWA have been concerned with the continued viability of the Greater Sage-Grouse. In November, 2004, the BLM released its *National Sage-Grouse Habitat Conservation Strategy*, which encouraged GRSG habitat conservation through consultation, cooperation, and communication with WAFWA, FWS, the Forest Service, the USGS, the state wildlife agencies, local GRSG working groups, and various other public and private partners.

In 2006, WAFWA completed a *Greater Sage-Grouse Comprehensive Conservation Strategy*, developed with the BLM, Forest Service, and other contributors to maintain and enhance populations and the distribution of Greater Sage-Grouse by protecting and improving sagebrush habitats and ecosystems that sustain those populations. The strategy outlined the critical need to develop associations among local, State, provincial, tribal, and Federal agencies, and local stakeholders. Over the next several years, the BLM and partner agencies and organizations concerned for declining populations and reduced distribution of GRSG designed and implemented cooperative actions to support robust populations of Greater Sage-Grouse and the landscapes and habitats they depend on.

In 2008, the BLM created two national teams to investigate possible BLM management options for GRSG conservation and to summarize the BLM's ongoing conservation efforts. One product of this investigation was one of the first range-wide maps of important Greater Sage-Grouse habitat, referred to as "key habitat." An additional outcome of this team's work was a memorandum of understanding (MOU) among WAFWA, BLM, FWS, USGS, the Forest Service and NRCS to provide for cooperation among the participating state and federal land managers and wildlife management and science agencies to conserve and manage Greater Sage-Grouse sagebrush habitats and other sagebrush-dependent wildlife throughout the western United States

In 2010, the BLM convened a conference with state wildlife agencies and, through an agreement with the FWS, mapped known active leks across the West, which served as a starting point for all states to identify priority habitat for the species.

In July, 2011 the BLM announced its intent to develop a National Greater Sage-Grouse Planning Strategy at a meeting of the Executive Oversight Committee (EOC) of WAFWA in Big Sky, Montana. Ten of the eleven state wildlife directors and five of the six federal agencies involved in sage-grouse planning and conservation were in attendance and committed to assist in developing the strategy.

In August 2011, the BLM signed a charter outlining the *National Greater Sage-Grouse Planning Strategy*, which contemplated that the BLM would evaluate its land use plans (also called Resource Management Plans or RMPs) and revise or amend them, as necessary, to incorporate regulatory mechanisms to conserve and restore the Greater Sage-Grouse and its habitat on a range-wide basis. That fall, the BLM convened a National Technical Team (NTT) to develop policy recommendations and conservation measures to be considered for conserving the bird and its habitat. The governors in Greater Sage-Grouse states designated representatives to work with the BLM as it identified proposed conservation measures and considered how to implement those measures through the BLM land use planning process. And, in October 2011, the Greater Sage-Grouse EOC of WAFWA sent a letter to the Forest Service Chief asking the agency to revise or amend its Forest Plans and to issue interim guidance adopting "appropriate elements of the BLM's NTT guidance."

In November, 2011, the Acting BLM Director sent a letter to the governors of GRSG states transmitting a copy of the BLM's draft interim management guidance for Greater Sage-Grouse conservation and requesting comments. Several states responded and their comments were incorporated into the finalized interim management guidance in December 2011 (IM 2012-043,

Greater Sage-Grouse Interim Management Policies and Procedures). In December 2011, the BLM also transmitted the final NTT Report and provided internal guidance about how to begin the process of amending and revising BLM RMPs to conserve the Greater Sage-Grouse and its Habitat (IM 2012-044, *BLM National Greater Sage-Grouse Land Use Planning Strategy*).

The Sage-Grouse Task Force

The Sage-Grouse Task Force (Task Force) was established in late 2011 following a meeting convened by former Secretary of the Interior Ken Salazar and Governors Mead of Wyoming and Hickenlooper of Colorado. Following discussions with the governors of all eleven states within the remaining range of the Greater Sage-Grouse and the four relevant federal land and resource management agencies, the Task Force issued a brief report which emphasized the “unmet need for an action plan ... to ensure a viable sage grouse population in the West and preclude the listing of the species.” In response, the Task Force called on the FWS to establish a Conservation Objectives Team (COT) consisting of state and federal experts that would make recommendations to the FWS Director “following an independent peer review to ensure their scientific validity.”

With the backing of the Task Force, the Director of FWS directed staff to develop range-wide conservation objectives for the Greater Sage-Grouse to determine the extent to which threats to the Greater Sage-Grouse needed to be reduced or ameliorated so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future. Recognizing the expertise in the state wildlife agencies, the COT was composed of eight individuals from state fish and wildlife agencies and four FWS representatives. In February 2014, the FWS released a report identifying range-wide conservation objectives that the BLM ultimately reviewed and considered when making its final plan decisions.

The COT Report emphasized an “avoidance first strategy” – specifically the need to avoid or minimize additional disturbance in GRSG habitat. The report stated, “[m]aintenance of the integrity of PACs...is the essential foundation for sage-grouse conservation”. (The PACs, or Priority Areas for Conservation, were the precursor to Priority Habitat Management Areas (PHMAs) in the final land and resource management plans. To achieve this, the COT Report recommended “targeted habitat management and restoration” to be achieved by “eliminating activities known to negatively impact sage grouse and their habitats, or re-designing these activities to achieve the same goal.” The land management plans were developed to address specific identified threats to the species in order to conserve the Greater Sage-Grouse, such that the need to list it under the ESA might be avoided.

Completing the BLM Greater Sage-Grouse plan decisions

The planning associated with the National Greater Sage-Grouse Conservation Strategy was coordinated under two administrative planning regions: the Rocky Mountain Region and the Great Basin Region. The Rocky Mountain Region is composed of BLM planning areas in Montana, North Dakota, South Dakota, Wyoming, Colorado, and portions of Utah. The Great Basin Region is composed of BLM planning areas in Oregon, Idaho, Nevada, and Utah. The

BLM identified these regions based on the different threats that the FWS identified in its 2010 listing decision, along with the WAFWA Management Zones framework included in the 2006 WAFWA sage-grouse conservation strategy. In both regions, the decision area for Greater Sage-Grouse habitat management was BLM-administered lands, including the subsurface mineral estate of split-estate lands.

At quarterly meetings of the Task Force, the states and each of the federal land and resource management agencies reported on their progress in developing their Greater Sage-Grouse conservation plans as well as on efforts to continue to implement conservation measures on the ground as overall planning proceeded. This continuing dialogue provided a means to keep Task Force representatives from the states and federal agencies aware of progress in developing the plans, on measures adopted to address specific threats identified in the COT report, and the process for completing the plans. While there was debate over specific measures and management actions, the overall dialogue was collegial and constructive and intended to avoid surprises among partners as the plans took shape and moved toward completion.

In October, 2014, the FWS provided a memorandum to the BLM to provide additional guidance on the identification of measures to provide “strong, durable, and meaningful protection of federally-administered lands [to] provide additional certainty and help obtain confidence for long-term sage grouse persistence.” The memo included maps highlighting areas where the FWS stated it was most important that the BLM and Forest Service “institutionalize the highest degree of protection to help promote persistence of the species.” The BLM considered the Service’s identification of these “strongholds” in the development of the Sagebrush Focal Areas (SFAs) in the final BLM plans. The SFAs were subsequently recommended for withdrawal, to achieve the highest level of protection consistent with the recommendation of the Service. The FWS memo was circulated and discussed among the Task Force members and individually with each state.

Similarly, the USGS was asked by the BLM to conduct a review of relevant, preexisting scientific literature to help determine summarize the impacts of various activities or projects (e.g., oil and gas development and transmission lines) might be on the Greater Sage-Grouse. The Greater Sage-Grouse is a species of high fidelity that prefers to inhabit areas of limited direct and indirect disturbance. The resulting USGS “buffer study” summarized existing science regarding GRSG buffer distances and was shared with members of the Task Force to inform them of the measures to avoid adverse direct and indirect impacts to the species that might result from specific kinds of development activities reviewed by the USGS. The BLM and Forest Service plans incorporated lek buffer-distances specified as the lower end of the interpreted range in the buffer report unless justifiable departures were determined to be appropriate.

Based on extensive public comment, and partner and stakeholder feedback, the BLM released the Final Environmental Impact Statements/Proposed Resource Management Plans on May 29, 2015 and signed the Records of Decision adopting these proposed plans on September 22, 2015.

Ultimately, the BLM Greater Sage-Grouse plans were built on the foundation created by the 2006 WAFWA *Greater Sage Grouse Comprehensive Conservation Strategy*, which emphasized the need to “maintain and enhance populations and distribution of GRSG by protecting and improving sagebrush habitats and ecosystems that sustain these populations” as reaffirmed in the FWS charge to the COT.

The final plans provide a strategic management approach that offers the highest level of protection in the most important habitat areas, known as Sagebrush Focal Areas (SFAs), which are based on the “stronghold” areas identified by the FWS to be essential for the species’ survival. In PHMAs, of which SFAs are a subset, the plans seek to limit or eliminate major new surface disturbance with limited exceptions. General habitat areas are lands outside of priority habitat that require some special management to protect and sustain Greater Sage-Grouse populations, but permit more flexible management and resource development. The SFAs have been proposed for withdrawal from mineral location and entry.

While restoring lost sagebrush habitat can be very difficult in the short term, particularly in the most arid areas, it is often possible to enhance habitat quality through specific management actions. Consistent with valid existing rights and applicable law, the final BLM plans will require mitigation that provides a net conservation gain to the species by avoiding, minimizing, and compensating for any unavoidable impacts from development. In addition, the BLM plans call for coordinated monitoring and evaluation of population changes, habitat condition, and mitigation efforts so that the effectiveness of voluntary and required conservation actions can be assessed. In response to this monitoring and evaluation, the plans may be adjusted based on a series of pre-determined benchmarks (termed “triggers”) developed with state wildlife agencies to ensure that there is an immediate, corrective response to any identified declines in population or habitat that exceed previously determined triggers.

The final plans also recognize the different nature of the threats to the Greater Sage-Grouse in each planning region. While threats in the eastern portion of the Greater Sage-Grouse range are mainly associated with disturbance due to development (e.g., oil and gas leasing, pipeline or transmission line construction, roads) the greatest threat to the Greater Sage-Grouse in the Great Basin is rangeland fire. In recognition of the nature and extent of the rangeland fire threat to Greater Sage-Grouse and communities in the Great Basin, a separate though related initiative was undertaken by the Department of the Interior to develop a rangeland fire strategy, initiated by Secretarial Order 3336, and developed in coordination with several federal agencies and states. This effort was the direct result of discussions with states, especially the encouragement of Governor Otter of Idaho, and has led to a focused, strategic, and collaborative, science-based plan to improve efforts to prevent, suppress, and restore landscapes threatened and/or impacted by rangeland fire in the Great Basin.

Collectively, these measures will conserve, enhance, and restore GRSG habitat across the species’ remaining range of the Greater Sage-Grouse and to provide greater certainty that the BLM resource management plan decisions in Greater Sage-Grouse habitat can lead to conservation of the sage-grouse and other sagebrush ecosystem associated species in the region. The targeted resource management plan protections in this ROD and the land and resource management plans will benefit not only the Greater Sage-Grouse and its habitat but also over 350 wildlife species associated with the sagebrush ecosystem which is widely recognized as the most imperiled ecosystems in North America. In addition to protecting habitat, reversing the slow degradation of this valuable ecosystem will also benefit local rural communities and their economies and a variety of rangeland uses, including recreation and grazing. This also will

safeguard the long-term sustainability, diversity, and productivity of these important and iconic landscapes.

Collaboration with States

The BLM Greater Sage-Grouse plans are the product of extensive coordination and engagement among federal agencies, states, and other partners and stakeholders. The plans, overall, provide sufficient consistency and certainty across the remaining range of the species to meet the objective of providing a rangewide conservation strategy while providing the necessary flexibility to be responsive to the unique landscapes, habitats, priorities, and approaches in each state.

To protect the most important Greater Sage-Grouse habitat areas, the BLM developed range-wide habitat maps based on habitat maps provided by the states, which identified areas necessary for species conservation via breeding bird density maps and state-managed lek counts, nesting areas, sightings, and habitat distribution data. The BLM used this information to develop preliminary priority habitat (PPH) and preliminary general habitat (PGH) maps and, subsequently, to identify priority habitat management areas (PHMAs) and general habitat management areas (GHMAs), respectively, as identified in the final plans (with the exception of Wyoming which designated areas as core or general habitat).

As underlying data is updated by individual states, the BLM is working with the states to revise habitat maps in the plans. For example, Wyoming, through its Sage-Grouse Implementation Team, recommended changes in its core areas to reflect new information about habitat areas which will be incorporated through plan amendments. Nevada is also in the process of updating its habitat map based on subsequent analysis by Dr. Peter Coates from the USGS.

Further evidence of the extensive state-federal collaboration is reflected in the diverse approaches taken to deal with and/or respond to threats to the species. For example, the BLM plan in Wyoming utilizes the “core area strategy” to deal with threats to the Greater Sage-Grouse mainly associated with development threats. The core area strategy was initially developed under former Governor Dave Freudenthal and continued under Governor Mead. This strategy focusses on minimizing surface disturbance in core or “priority” habitat areas. The strategy applies to all lands in the State and is overseen by the Sage-Grouse Implementation Team consisting of a diverse array of partners including all of the relevant federal and state agencies.

The BLM plan in Idaho similarly reflects the extensive collaboration with the state in developing its conservation strategy. Unlike other state plans, the Idaho plan designates three types of Greater Sage-Grouse habitat – core, important, and general habitat – each with tiered-down surface management prescriptions to limit adverse impacts to the GRS. The Idaho plan includes a state-developed adaptive management mechanism which requires that habitat protections for the species increase – e.g., that important habitat be managed as core habitat – should GRS population numbers fall to a certain level or habitat quality decline.

In Nevada, the BLM adopted unique provisions to reflect state economic priorities and the habitat threats in the state. In addition, the plan accommodates the state’s mitigation strategy as a

part of its Greater Sage-Grouse plan: a credit exchange program to facilitate efforts to mitigate projects that can have an adverse impact on Greater Sage Grouse and its habitat. This program permits compensatory mitigation (for unavoidable impacts after avoidance and minimization efforts) to occur on private and public lands in the State as a means of achieving a net conservation gain for the species to minimize the likelihood of habitat loss when development occurs. In other states, credit exchanges, conservation banks, and in lieu fee approaches will be used to meet the BLM plans' mitigation objectives.

The collaboration with states was extensive throughout the plan development process and will continue into implementation. The BLM has begun an extensive outreach effort to ensure that implementation guidance and practices take into account state, local and tribal expertise and input. As part of this effort, each of the sage-grouse state BLM offices convened outreach meetings with elected officials, stakeholders, and the public during April 2016 to discuss the plans and their implementation to get feedback and advice moving forward. Some further examples of our continued collaboration include:

- The Sage Grouse Task Force agreed unanimously in January to extend its charter to inform plan implementation and any related concerns.
- Through the Task Force, the states and federal partners are working to define the key principles associated with effective mitigation, to define key concepts such as additionality and durability, and determine what parameters should apply to determining if net conservation benefit is achieved. We have agreed that mitigation should be implemented through state-developed GRSg mitigation programs, subject to review by the BLM and FWS, and consistent with the mitigation principles jointly developed by the state and federal Task Force members.
- A number of voluntary, incentive-based conservation measures have been implemented to address habitat improvement objectives, to remove or reduce threats to the species, and provide landowners with assurances against additional regulatory requirements should the species ever be listed.
 - SGI -- Through the NRCS' Sage Grouse Initiative, over 100 partners are using their resources and expertise to achieve wildlife conservation through sustainable ranching. Unprecedented cooperation aims to recover sage grouse and sustain a healthy sagebrush-steppe. Diverse partners include conservation districts, nongovernmental organizations, private corporations, land trusts, state agencies, universities and federal agencies. Today, 1,129 ranches across 11 Western states are conserving 4.4 million acres of land. SGI has also greatly enhanced 405,241 acres of otherwise suitable habitat by removing invading conifer trees.
 - CCAAs -- CCAAs and CCAAs are voluntary agreements whereby private landowners agree to manage their lands and/or public land allotments to remove or reduce threats to species at risk of being listed under the ESA. In return for managing their lands to the benefit of species at risk, these landowners receive assurances against additional regulatory requirements should that species ever be listed under the ESA. Under a CCAA, the FWS will issue enrolled landowners Enhancement of Survival (EOS) permits pursuant to section 10(a)(1)(A) of the ESA for a period of 20 years. To date, CCAAs for sage grouse conservation have been established in WY and OR and other states.

Summary

Development of the BLM Greater Sage-Grouse plan decisions, as it evolved over many years, reflected an effort to work at a landscape-level, to incorporate new science and information in the planning process, and to emphasize close coordination and collaboration with other federal agencies and with the states.

Consistent with the comments of Secretary Jewell, in announcing the FWS “not warranted” listing determination and releasing the BLM plans, this approach reflects a new paradigm in the way in which western lands and resources can be managed. The effort to develop a landscape-level conservation strategy covering the range of the species was unprecedented in scope, scale, and process. The decision to focus the strategy on addressing specific threats to the Greater Sage-Grouse identified in the COT report placed emphasis on solutions based in sound-science. And the ongoing and extensive effort by all parties to work together across the range, in partnership between the federal agencies, governors’ offices, and with each state fish and wildlife agency, as well as NGO, industry, and local stakeholders highlighted the collaborative effort that was essential to achieving a conservation strategy that reflected local resource conditions and yet added up to a comprehensive and effective range-wide conservation plan.

In many ways, this approach to species conservation is reflective of the goals of the Endangered Species Act. A stated purpose of the ESA is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.”

This range-wide effort, focused on protecting, restoring, and improving the endangered sagebrush ecosystem upon which the Greater Sage-Grouse depends, provided the means to avoid the need to list the Greater Sage-Grouse as threatened or endangered. Our hope is that the collective effort undertaken to create this strategy will translate into a collaborative effort to implement the GRSG plans in a manner that will benefit not only the GRSG, but the estimated 350+ species of flora and fauna associated with the sagebrush sea, thus obviating the need to list other sagebrush obligate species.

And, it is important to note that the recently released *Western Governors’ Species Conservation and Endangered Species Act Initiative* and the *Governors’ Policy Statement*, a product of the leadership of the immediate past chair of the WGA, Governor Meade, also emphasizes some of the lessons learned from our collaborative efforts to conserve the Greater Sage-Grouse.

Specifically, the *Governors’ Policy Statement* highlights the importance of: (1) enhancing the role of state governments, (2) ensuring the use of sound science, and (3) providing incentives and funding for conservation as means to more effectively implement the ESA. The statement further emphasizes the importance of a “strong federal-state partnership” in implementing the ESA.

I would agree with all of these statements, but would suggest that these principles need not only apply in implementing the ESA. As the GRSG conservation effort illustrates, applying these

principles in advance of the need to list a species is the best way to avoid the need to list the species under the ESA. As is said, "An ounce of prevention is worth a pound of cure". Our experience with the Greater Sage-Grouse demonstrates that point. Finally, as Secretary Jewell emphasized in her remarks in Denver in announcing that listing the Greater Sage-Grouse was not warranted, and recently reiterated,

As a result of this unprecedented planning effort, the U.S. Fish and Wildlife Service determined that the greater sage-grouse does not need the protection of the Endangered Species Act. I'm not suggesting that this was an easy task. It wasn't, by any stretch of the imagination. But the epic collaboration did result in a thoughtful, science-based roadmap for a healthy ecosystem and sustainable development across a landscape.

That's the model for the future of conservation. That big-picture, roll-up-your-sleeves, get-input-from-all-stakeholders kind of planning is how land management agencies should orient themselves in the 21st century.

I couldn't agree more.

Thank you, Mr. Chairman and Members of the Committee, for the opportunity to appear before you today. I look forward to our discussion and the opportunity to attempt to answer any questions you may have.

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Senator BARRASSO. Thank you, Mr. Lyons.

Next is Mr. Robert Harper, who is the Director of Water, Fish, Wildlife, Air and Rare Plants at the U.S. Forest Service.

Thank you for being with us.

STATEMENT OF ROBERT HARPER, DIRECTOR, WATER, FISH, WILDLIFE, AIR & RARE PLANTS, U.S. FOREST SERVICE, NATIONAL FOREST SYSTEM, U.S. DEPARTMENT OF AGRICULTURE

Mr. HARPER. Chairman Barrasso, Ranking Member Wyden and members of the Subcommittee, thank you for the opportunity to discuss USDA's efforts to work with states, stakeholders on the implementation of amendments to the Forest Service land use plans for sage grouse conservation. I'm pleased to serve as the witness today and share Forest Service efforts to implement the amendments.

The design and implementation of sage grouse conservation amendments represents a remarkable effort to develop and implement a landscape-scale, science-based and collaborative strategy to conserve the greater sage grouse in the sage brush ecosystem.

We recognize sage brush landscapes of the interior West are valued and used by people with long and deep connection to the land and that our actions may affect many people. The amendments and their implementation are strengthened by the contributions of local partners and their expertise. Evidence of our work here is reflected in the Fish and Wildlife Service's September 2015 decision that the greater sage grouse was not warranted for listing under the Endangered Species Act.

We are deeply engaged with state and federal working groups at multiple levels and my colleague, Jim Lyons, mentioned a number of these. Agency leaders serve on the Sage Grouse Task Force, me. The Sage Grouse Task Force is comprised of governors' representatives and federal executives who have worked together for several years and through the development of federal plans and have committed to continue our work to implement the plans.

We're contributing to the coordination of multiple state mitigation frameworks, and we're engaged with state-specific sage grouse working groups. We're developing implementation protocols, and we've shared our draft protocols with states and federal partners seeking their insights and feedback. And we have posted the protocols on a publicly available website. We are coordinating closely with other agencies. For example, we've developed an MOU with the State of Nevada and the BLM to cooperate on the use of Nevada's conservation credit mitigation system. And we're developing MOUs with the states of Utah and Wyoming to formalize frameworks necessary to formalize adaptive management and monitoring strategies. At the local level we're working with livestock producers and states to assess range land conditions and identify if and where changes to allotment management for sage grouse conservation may be required. We're also working with states and livestock producers to formulate on site monitoring and adaptive management frameworks.

USDA continues to be instrumental in coordinating sage grouse conservation. Forest Service actions are enhanced by our work

through our sister agency, the Natural Resources Conservation Service, and we're part of an over \$200 million investment in sage grouse conservation through Fiscal Year 2018.

We've entered into an MOU with the NRCS and BLM to provide a collaborative framework to conserve sage grouse in the sage brush ecosystem. We continue to work together to implement specific actions such as removing conifers, preventing the spread of invasive weeds and reducing the risk of wildfire.

And finally, if I could leave two messages with the Committee it would be this: that the plans were collaboratively developed and their implementation is and will continue to be informed by contributions from local partners; and two, the rising cost of wildfire at the Forest Service continues to reduce the resources we have to implement non-fire related conservation work, including the implementation of these plans. We very much appreciate the support of the Subcommittee to find a fix to the Forest Service fire funding issue.

With that, I thank the Committee for your support and I will be happy to answer any questions when the time is appropriate.

[The prepared statement of Mr. Harper follows:]

**Statement of
Robert Harper
Director Water, Fish, Wildlife, Air & Rare Plants
U.S. Forest Service, Washington Office, National Forest System
U.S. Department of Agriculture before the
Senate Committee on Energy and Natural Resources
Subcommittee on Oversight
Hearing on the status of the Bureau of Land Management and Forest Service's efforts to
implement amendments to land use plans and specific management plans regarding sage
grouse conservation, and those agencies' coordination activities with affected states
June 28, 2016**

Chairman Barrasso, Ranking Member Wyden, and members of the Subcommittee: Thank you for the opportunity to discuss the U.S. Department of Agriculture's efforts to coordinate with affected states and stakeholders on implementation of our amendments to land-use plans for greater sage-grouse conservation.

The design and implementation of the greater sage-grouse conservation amendments represents a remarkable level of coordination and commitment with states, permittees and other stakeholders to satisfy the Forest Service's mission and meet Congressional direction that national forests are established and administered for multiple uses. The coordinated efforts of federal and state agencies contributed to the U.S. Fish and Wildlife Service's (USFWS) determination not to list the greater sage-grouse as a species in need of protections under the Endangered Species Act (ESA).

A critical component to the successful implementation of this conservation effort is coordination with the states. Through state-federal agreements, the establishment of state coordinator representatives, and other collaborative efforts, we have established a framework for cooperation that has resulted in improved outcomes, including for example, better integration of state-led science on lek buffers (conservation buffers around sage-grouse communal breeding locations) in Forest Service plan amendments.

In addition to close collaboration with States, USDA is working with a host of local and regional stakeholders. For example, we are fully engaging with livestock permittees to assess rangeland conditions and identify if there are any needed changes to allotment management for sage-grouse conservation. The conservation and recovery of greater sage-grouse and its habitats is dependent upon strong federal land-management plans, strong state and private land management, and an effective strategy to reduce the threat of rangeland fire.

We fully recognize the sagebrush steppe ecosystems of the Interior West are valued and used by people with a long and deep connection to the land and that our actions may affect many people. Therefore, we continue to be part of a collaborative, landscape-scale conservation effort that includes multiple federal agencies, states, private landowners, and other stakeholders.

Background

In March 2010, the USFWS published findings that the greater sage-grouse was warranted to list as a Threatened or Endangered Species under the ESA, but deferred listing based on other higher priorities. The USFWS findings identified the inadequacy of regulatory mechanisms as a significant threat to greater sage-grouse. A lawsuit settlement agreement required the USFWS to issue a decision regarding ESA listing for the greater sage-grouse by Sept. 30, 2015. In December 2011, the Bureau of Land Management (BLM) and the Forest Service jointly decided to consider amending and revising their land use plans, within the range of the greater sage-grouse, to provide for greater conservation measures before the listing decision was made. This resulted in four years of a coordinated, collaborative effort among federal, state, and local partners to develop the greater sage-grouse land use planning decisions.

The land use planning decisions and the subsequent decision by the USFWS to not list the species, provide a framework for an efficient, coordinated response to the threats facing this species. Perhaps most important to our cooperators is that the planning decisions maintain management flexibility for state agencies and avoid ESA listing.

Forest Service Records of Decision (RODs) were written at the landscape scale and accounted for varying local conditions. There are different amendments signed for the national forests within Idaho and Southwest Montana, Nevada, Utah, Northwest Colorado, and Utah. Although the several amendments have much that is similar, adjustments were made to account for differences between the states.

Cooperation, Coordination, and Communication

Forest Service leaders at the national, regional and field levels are deeply engaged with state-federal interagency working groups at multiple levels. Agency leaders serve on the Greater Sage-Grouse Task Force. This task force is comprised of state and federal executives who worked together, for several years, through the planning and development of the State and federal plans, and have committed to continue our collective work into implementation of the federal and State plans. Agency leaders also coordinate with the Western Association of Fish and Wildlife Agencies Sagebrush Executive Oversight Committee. Moreover, regional field-level personnel are consistently and actively engaged with state-federal interagency working groups designing mitigation frameworks, and with state-specific working groups.

A key component to our coordination efforts with state agencies is the assignment of Greater Sage-Grouse Coordinators for the affected states. Specifically, coordinators are in place for Wyoming, Utah, Nevada, Montana, and Idaho. Another very important component to our collaboration and coordination is the creation of interagency memoranda of understanding (MOU). For example, an MOU has been completed for a mitigation strategy in Nevada and we are developing similar MOUs with Utah and Wyoming.

Our coordination with other federal agencies has also been close. The sage-grouse conservation plan analysis and amendments were closely coordinated with the BLM. We are continuing this coordination as we move forward into implementation, particularly regarding fire and invasive

species and habitat assessments. We are part of an interagency team of federal and state managers discussing mitigation and monitoring.

We have entered into an MOU with the BLM and the Natural Resources Conservation Service (NRCS) to provide a collaborative framework for the BLM, NRCS, and Forest Service to accomplish common goals related to the conservation of the greater sage-grouse and its habitat. The six major collaborative components of this MOU are to:

1. Control invading conifers in mutually agreed upon priority watersheds.
2. Implement practices across landownerships designed to reduce the risk of fire and invasive species as identified by the Fire and Invasive species Assessment Tool (FIAT) in the Great Basin, and in the Rocky Mountain States when similar tools become available.
3. Restore and enhance wet-meadow habitats in mutually agreed-upon priority watersheds.
4. Develop science tools that refine delivery of priority conservation practices, jointly track implementation, assess benefits of such practices, and quantify resulting biological outcomes.
5. Coordinate communications to amplify outcomes achieved in conservation.
6. Coordinate, where appropriate, the planning and implementation of range structural improvements.

Implementation of the Greater Sage-Grouse Amendments

The scope and scale of the greater sage-grouse amendments guides us to implement our decisions in close cooperation with the U.S. Department of the Interior, including BLM and USFWS; NRCS at the U.S. Department of Agriculture, and state agencies. For example, we will incorporate elements of state-based mitigation plans as they are developed. We are also examining and assessing grazing allotments in a transparent and interactive process that may require up to 36 months to complete. Thus, implementation is an interactive process that provides large-scale consistency while allowing for adaptation to local and fine-scale needs.

Our implementation of the decisions is transparent and adaptive and we are making excellent progress. Where our amended Land Management Plans outline desired vegetative characteristics, we are developing and posting the protocols for how to measure and evaluate vegetation in the field. We have shared our draft protocols and implementation guides internally and externally with states and federal partners seeking their insights and feedback. By posting protocols on a publicly accessible website, we are allowing for continued input during the implementation process. Our guides and supplemental information can be found at:

<http://www.fs.fed.us/science-technology/fish-wildlife-plants/sage-grouse/implementation-guide>

We have developed initial versions of internal, adaptive guidance documents. These documents have been shared with state agencies and are publicly accessible on our website.

Accomplishments to Date: Responses to Threats to Greater Sage-Grouse Habitats

USDA continues to be instrumental in coordinating agency responses. Forest Service implementation actions are enhanced through our work with our sister agency the

NRCS. Comingled public-private land ownership throughout the West requires collaboration among partners to implement sage-grouse conservation practices. NRCS created the Sage Grouse Initiative (SGI) to voluntarily reduce threats facing sage-grouse and ranching on private lands. SGI focuses on the shared vision of wildlife conservation through sustainable ranching, providing win-win solutions for ranchers, sage-grouse and 350 other sagebrush obligate species. The SGI has strategically conserved 4.4 million acres of land on 1,129 ranches across 11 western states since 2010. In 2015, NRCS committed another \$211 million for SGI through 2018 to continue to conserve and restore the sagebrush-steppe. The Forest Service, BLM, and NRCS continue to work together to jointly target and implement specific actions. Specifically, removing invading conifers, preventing the spread of invasive weeds and uncharacteristic wildfire across the sage-grouse range using tools such as those developed through collaborative processes, and restoring important wet meadow habitats are joint priorities.

Forest Service has identified more than 1.7 million acres of preliminary nesting and breeding habitat and another 1.7 million acres of preliminary summer and brood-rearing habitat. In 2016, the Forest Service has committed funding and plans to implement nearly 75,000 acres of habitat improvement work through conifer removal and restoration of sagebrush, forb, and native grasses and 7,000 acres of invasive plant control. At the end of the summer, the Forest Service will have statistically sampled 80 percent of the roughly 3.4 million acres of mapped habitat to validate the map accuracy and habitat quality. This data will be used to refine maps and quantify the habitat quality, and assess potential of any future changes in grazing-management operations.

The USFWS 2013 Conservation Objectives Team identified a list of potential threats to greater sage-grouse. The following summaries are intended to give the subcommittee an overview of the threats and our ongoing responses to them, beginning with our accomplishments at identifying and restoring habitat.

Invasive Plants

In 2016, nearly 7,000 acres have been identified for invasive plant control. Due to the complexity and cost of reclamation, the acres identified for treatment in 2016 are preliminary, and we plan to treat larger numbers of acres as implementation progresses.

The establishment of annual grass species, particularly cheatgrass, into the sagebrush ecosystem has had profound impacts on greater sage-grouse habitats in the western United States. Annual grass species provide a fuel source for wildfire ignitions that have shortened fire periodicity and replaced millions of acres of native grasses and sagebrush with annual grasslands. While other invasive plant species may degrade ecosystem function, the USFWS identified annual grass species as one of the primary threats facing greater sage-grouse and its habitat, particularly in Great Basin region environments.

Fire

Fire represents one of the most immediate threats to greater sage-grouse habitat. Annual invasive grasses are prone to frequent, recurring wildland fire, which further exacerbates the conversion of habitat to annual invasive grasses. Recognizing the nature and extent of this threat, our plan amendments include specific guidance to fight the spread of cheatgrass and other invasive

species, position wildland fire management resources for more effective rangeland fire response, and accelerate the restoration of fire-impacted landscapes to native grasses and sagebrush.

The Forest Service is part of the Western Association of Fish and Wildlife Agencies Greater Sage Grouse Wildland Fire and Invasive Plants Assessment Team. This is a coordinated state and federal effort to identify, protect, and restore sagebrush communities.

We have completed and posted our initial version of the Fire Implementation Guide. While this document provides important guidance for conservation of sage-grouse habitats, in all fire responses, the first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be protected from loss due to unwanted wildfires or damages resulting from management related activities, while using Forest Service risk management protocols to manage for firefighter and public safety and other high priority values.

Conifer Encroachment and Sagebrush and Forb Restoration

Greater sage-grouse are negatively impacted by the expansion of conifers in their habitat. As conifers increase in abundance and size, the underlying habitat quality for sage-grouse decreases. Additionally, conifers can provide habitat for predators. Restoration projects are being focused on sagebrush communities where conifer encroachment is occurring. Much of the work described above is focused on removal of conifers and restoration of sagebrush and native forbs and grasses. Forest Service Research and Development, in cooperation with a wide array of partners, has played a major part in this work through its support of the Great Basin Native Plant Project, the National Seed Strategy, the Inter-Tribal Nursery program, the “Seeds of Change” program, and the Western Center for Native Plant Conservation and Restoration Science. Through these, and other efforts, the Forest Service is increasing the availability of native seeds and plants and improving the knowledge and technology needed for their use in restoring diverse native plant communities.

Livestock Management to Avoid Improper Grazing

There will be no immediate changes to grazing practices. As we collect field data this summer we will be sharing the results with states and permittees on the presence and quality of sage-grouse habitat, and once we have validated the presence of sage-grouse habitat and what effects, if any, grazing may be having, we will continue to engage the grazing permittees to develop any needed changes. For some permittees there will be no need for changes, others may need to make minimal (two to three weeks) adjustments in the timing or rotation on the allotments.

Livestock grazing is being managed to achieve desired vegetation structure on allotments that are close to greater sage-grouse breeding and nesting sites. We have initiated a multi-year implementation timeline. First we are focusing on collecting necessary biological data (e.g., vegetation measurements) and validating existing maps of sage-grouse habitat with field data. We are then sharing this site specific field data with grazing permittees. Using these data, we will develop grazing instructions with permittees that are compatible with greater sage-grouse needs.

Approximately one third of our term grazing permits, in the area covered by the plan amendments, may have greater sage-grouse habitat on some part of the allotment. The sage-grouse plans amendments and the estimated habitat are approximately 16 percent of total area in these Forest Service grazing allotments in the planning area. The lands managed by the National

Forest System contain an estimated 8 percent of the total habitat in the range of greater sage-grouse.

Recreation, Commercial Use, and Travel Management

Recreational activities can result in habitat loss and fragmentation (e.g., creation of unauthorized routes) and both direct and indirect disturbance to the birds (e.g., noise, disruptive lek viewing, and dispersed camping). Limitations on approving expanding recreational facilities and activities in greater sage-grouse habitats have been implemented. We have completed and posted our initial version of the Recreation Implementation Guide.

Mining and Energy Development

Stipulations or prohibitions to activities, which may include no surface occupancy or restrictions on timing of disturbances, will be considered for the permitting of minerals activities such as: coal mining, leased fluid minerals, locatable minerals, mineral materials, non-energy leasable minerals, and unleased fluid minerals in priority habitats.

As part of the planning process, the USFWS identified essential population strongholds for greater sage-grouse conservation, which the USDA and the BLM considered in developing Sagebrush Focal Areas (SFAs). These areas have been proposed for withdrawal from locatable mineral location and entry under the U.S. mining laws, subject to valid existing rights. These SFAs were key in helping to keep the sage-grouse from being listed under ESA, and were developed in coordination with the states. The states will continue to fill a critical role.

These sagebrush focal areas total approximately 800,000 acres on NFS lands. Within this area approximately 440,000 acres are in inventoried roadless areas with more restrictive access, and approximately 70,000 acres are in congressionally designated Wilderness and thus restricted from some mineral development by the Wilderness Act. All other lands either not previously withdrawn or proposed for withdrawal remain open to location and entry under the mining laws.

Habitat Conversion to Agriculture and Urbanization

We are managing NFS lands to minimize or eliminate the threat of agricultural conversion and urbanization. Lands classified as biologically important habitat will be retained in Federal management unless: (1) the agency can demonstrate that disposal of the lands will provide a net conservation gain or (2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of the greater sage-grouse.

Infrastructure

Development of infrastructure (e.g., roads, pipelines, power lines, cellular towers) results in habitat loss and fragmentation and may cause greater sage-grouse habitat avoidance.

Infrastructure can provide sources for the introduction of invasive plant species and predators. In biologically important habitats, new development is addressed through processes of mitigation: avoiding, minimizing, or compensating for loss or degradation of habitat. Areas of higher importance to greater sage-grouse have more significant restrictions, but areas of lesser importance have less stringent restrictions and allow a limited amount of disturbance. We are collaborating with the BLM and states to incorporate the use of disturbance-calculation tools.

Climate Change

The implications of climate change pose significant concern in the conservation of greater sage-grouse and its habitat. The plan amendments focus on areas that have the greatest potential for conserving and restoring the connectivity of sagebrush habitats that are most important to greater sage-grouse populations.

Conclusion

The Forest Service, in collaboration with our state and federal partners and other stakeholders, is working to implement policy that will ensure adequate regulatory mechanisms for the protection and recovery of greater sage-grouse habitats while striving to accommodate existing uses. We are moving forward in a transparent, step-wise, and collaborative fashion. Implementation of the amendments is a process that will take two- to three-years before all aspects are fully integrated into normal procedures, and the steps that we are taking will help to ensure that the greater sage-grouse will not require listing under the provisions of the Endangered Species Act.

I would like to thank this subcommittee for its support. I would be happy to answer any questions you have at the appropriate time.

Senator BARRASSO. Thank you very much, Mr. Harper.

Next we will hear from Ms. Kathleen Clarke, Director of the Public Lands Policy Coordinating Office for the State of Utah.

Thanks for being with us.

**STATEMENT OF KATHLEEN CLARKE, DIRECTOR, PUBLIC
LANDS POLICY COORDINATING OFFICE, STATE OF UTAH**

Ms. CLARKE. Chairman Barrasso and members of the Committee, it is a privilege for me to testify before you today on matters relating to the sage grouse conservation and implementation of federal sage grouse conservation plans.

As was mentioned, I currently represent the State of Utah and serve in the position of Director of the Public Lands Policy Coordinating Office. I was also asked by the Governor to be the state's representative on the task force that has been referenced.

In these positions I do oversee the implementation of Utah's sage grouse conservation plan, and I oversee coordination with the federal agencies on the implementation of their plan.

The sage grouse population in Utah makes up only about seven percent of the total national population. We have 7.5 million acres of habitat, and about half of that is owned by the Federal Government.

Utah got on this problem years before it was—they were approached by Secretary Salazar or even by his predecessor. We have nearly 20 years of research and data that's been accumulated by graduate students who have been digging into this problem for years, and that work was done based on the foresight of our division of wildlife resources and that actually started when I was directing the Utah Department of Natural Resources.

Since 2006 the state has invested over \$50 million into sage grouse management and research. We have protected 25,000 acres of habitat and increased sage grouse populations by 50 percent since 2013.

The greatest threats to sage grouse in Utah are fire, cheat grass and the encroachment of Pinyon-Juniper trees into the sage grouse habitat. We have found that as we prevent and manage fire and restore sage brush habitat by removing excess trees, we actually can increase sage grouse populations.

I just want to highlight a few of the issues and frustrations we have been dealing with our federal partners regarding the federal plans.

I remain very concerned that one-size-fits-all national standards are being imposed to manage sage grouse in Utah. For example, the Forest Service is looking to implement grass heights, stubble height standards for livestock that are based on conditions in Idaho and Oregon, but they're wholly unrealistic for Utah. Critical sage grouse conservation areas in the Southern part of Utah have likely never seen the seven inches that the Forest Service is looking for and they likely never will. Imposition of an unachievable grass height standard will result in the eventual elimination of graze stock or of livestock grazing in the area which could lead one to believe that, in fact, that is the desired outcome of the federal plan.

In Utah alone, \$2.5 billion a year comes from economic activities in sage grouse habitat. And under these federal plans, oil and gas

development is being severely restricted, if not totally banned, depending on the designation or the classification of habitats the Federal Government imposes. Last year alone there were over 480,000 acres of oil and gas leases, lease requests that were deferred by federal agencies due to sage grouse conservation.

And my third point is that the feds are suffering from woeful inertia in dealing with their own plans. The federal officials in our state have been waiting for months for that Washington knows best implementation guidance. And as I have suggested, sage grouse conservation action needs to be the result of bottom/up processes that involves many partners and that is informed by the best available science for that particular locale.

All too often while working with federal managers we have been told that sage grouse-related decisions are all on hold until its direction comes from the DC brain trust. What a waste of time and opportunity.

In summary and drawing on 35 years of experience dealing with public land issues, I recommend just a few changes that, I believe, could help.

First, I recommend the BLM follow the state sage grouse plan. It is working, and it will continue to work. It is an all lands plan, and we invite the Federal Government to fully participate.

Second, we need less Washington, DC, interference in plan implementation. Local BLM and Forest Service officials are competent, they are very capable and we have worked closely with them in refining our shared understanding and knowledge about the sage grouse and in undertaking habitat restoration projects and habitat protection projects. These partners stand by our side regularly and they are essential to the successes that we have enjoyed.

I urge the BLM and the Director of the BLM and the Chief of the Forest Service and their respective Cabinet Secretaries to step back and allow local federal officials to do their jobs without the nagging requisite of constantly seeking permission from the mother ship in DC before making decisions or taking action.

And finally, we hope that the federal agencies will adopt the compensatory mitigation measures that are being developed in the states.

Again, we feel like a one-size-fits-all standard would be inappropriate and very unhelpful. Our legislature directed the development of such a plan, and we are asking that the federal agencies adopt that.

Let me assure you that the State of Utah will continue to protect, conserve and create sage grouse habitat regardless of the federal plan. We are confident that our plan addresses the real threats to conservation of the sage grouse in Utah rather than the federal plan that seems more focused on limiting access to federal lands than on species conservation.

Thank you for this opportunity.

[The prepared statement of Ms. Clarke follows:]



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
*Lieutenant
Governor*

Office of the Governor
PUBLIC LANDS POLICY COORDINATING OFFICE
KATHLEEN CLARKE
Director

June 28, 2016

Congressional Testimony from
Kathleen Clarke
Director
Utah Public Lands Policy Coordinating Office
before the
United States Senate Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests, and Mining
Oversight Hearing

Re: The Bureau of Land Management and Forest Service's efforts to implement amendments to land use plans and specific management plans regarding sage grouse conservation, and those agencies' coordination activities with affected states

Dear Chairman and Honorable Members of this Committee:

It is a privilege to testify today before this committee on matters relating to sage grouse conservation and implementation of the federal land use plans in Utah. I currently serve as the Director of Governor Herbert's Public Lands Policy Coordinating Office. In that capacity, I oversee the implementation of the *Utah's Conservation Plan for Greater Sage-Grouse* and I am closely involved with ongoing federal efforts to implement the federal sage grouse land use plans within Utah.

My takeaway message to you today is threefold. **First**, I want to detail for you Utah's success in utilizing state management and solid science to conserve the sage grouse. **Second**, I want you to highlight some of the concerns I have regarding implementation of the federal land use plans. **Third and finally**, I will offer a few recommendations that I believe could result in more effective, efficient and successful implementation of the federal land use plans.

On a national scale, the sage grouse population in Utah makes up about 7% of the national sage grouse population with about 7.5 million acres of sage grouse habitat in the state. Nearly 50% of the sage grouse habitat in Utah is found on federal lands.

More than 15 years of intensive graduate level research by Utah State University biologists has taught us that there are 11 distinct sage grouse population centers in Utah – each one different than the others. When we accepted Secretary Salazar's challenge to develop a statewide sage grouse conservation plan in December of 2011, we quickly realized a single Utah Plan would not work; one size would not fit all. We ended up with 11 separate plans – each focusing on local threats and risks and on conservation actions designed to conserve that unique population.

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Since 2006, the state has invested over \$50 million dollars into sage grouse management and research. To date:

- We have enhanced and restored more than 620,000 acres of sage grouse habitat;
- The state has protected over 25,000 acres of habitat since 2013; and
- We have increased sage grouse populations by 58% since 2013 when we put our current plan into effect.

The greatest threats to sage grouse in Utah are fire, cheat grass, and encroachment of pinion/juniper trees into sage grouse habitat. We have found that as we prevent and manage wildfire, and restore sagebrush habitat by removing excess trees, we can restore sage grouse population numbers. Yes, the state's strategy for managing sage grouse in Utah is very simple. And very effective!!

It was a huge disappointment when federal land management agencies adopted resource management plan revisions that largely ignored the strength and science behind Utah's conservation plan. I could spend hours here today telling you about all of the complicated and unnecessary facets of those plans, but instead, I want to highlight just a few main issues we've encountered dealing with the implementation of the federal plans and the negative impacts we are seeing in Utah.

First, implementation in Utah is not based on the best available science.

I am concerned that one-size fits all national standards are being imposed to manage sage grouse here in Utah. For example, the forest service is looking to implement grass height standards for livestock that are based on conditions in Idaho and Oregon, but wholly unrealistic for Utah. Critical sage grouse conservation areas in the southern part of Utah have likely never seen nor will never see 7" stubble heights. Imposition of an unachievable grass height standard will result in the eventual elimination of livestock grazing in the areas, which one could be led to believe is, in fact, the desired outcome of the federal plans.

Second, plan implementation hurts Utah's economy.

The federal government needs to be cautious as it makes land use plan decisions that modify economic and resource development on federal lands. In Utah alone, \$2.5 billion dollars a year comes from economic activities in sage grouse habitat. Under federal plans, oil and gas development is being severely restricted if not banned outright depending on the habitat classification the federal agencies impose. Last year alone, over 480,000 acres of oil and gas leases were deferred due to federal sage grouse conservation plans. The potential impacts of the mineral withdrawal, particularly in a state like Nevada, are catastrophic and wholly unnecessary. As the federal agencies continue to limit development and use of *our* federal lands in the name of sage grouse conservation, they need to recognize the resultant perilous impacts to both state and national interests and economics.

And my third point is that federal sage grouse plan implementation is suffering from serious inertia.

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State and local land managers have been waiting for months for “Washington knows best” implementation guidance. As I previously opined, sage grouse conservation action needs to be the result of a bottom-up process that involves many partners and that is informed by the best available science for that particular locale. All too often while working with federal agency managers, we have been told that sage grouse related decisions are on-hold awaiting direction from the DC brain trust. What a waste of time and opportunity.

IN SUMMARY and drawing on over 35 years of experience dealing with public lands issues, including 5 years directing the BLM, I recommend the following changes which I believe would improve the implementation and success of sage grouse conservation in Utah. Any help from Congress to influence the BLM, Forest Service and Fish and Wildlife Services to adopt these recommendations would be greatly appreciated.

1. First, the BLM needs to more fully follow the State of Utah’s Plan for the Conservation of the Greater Sage-Grouse. The State Plan has worked and will continue to work to conserve sage grouse. Ours is an all-lands plan and we would welcome full federal participation in its implementation.
2. Second, we need less Washington D.C. interference in plan implementation. Local BLM and Forest Service officials are highly skilled and capable, and have worked closely with the state in refining our shared understanding of sage grouse and their critical habitats. They partner regularly with us on habitat conservation and restoration projects. Local federal leaders are cognizant of the strength, science and local knowledge underpinning Utah’s Sage-Grouse Conservation Plan and know that success managing sage grouse and sage grouse habitat requires on-the-ground knowledge and the engagement of many committed and competent partners. Participation and funding from NRCS, and many other state and federal partners, has most certainly been essential to the successes we have shared in conserving sage grouse. I urge the Director of the BLM, Chief of the Forest Service, and the respective Cabinet Secretaries to step back and allow state and local federal officials to do their jobs without the nagging requisite of constantly seeking permission from the mother-ship in D.C. before making decisions or taking action.
3. Finally, the federal agencies should adopt compensatory mitigation measures developed by the State instead of creating national one-size fits all standards. This year the Utah State Legislature passed the Sage Grouse Management and Protection Act which directs the creation of a Utah mitigation banking system that will serve to mitigate and restore sage grouse habitat that is permanently disturbed. This will be an excellent tool to assist the federal government in reaching the net-conservation-gain of sage grouse conservation. I encourage the BLM and Forest Service to fully adopt Utah’s compensatory mitigation program when the rule becomes final later this year.

The State will continue to protect, conserve and create sage grouse habitat regardless of the federal plans. We are confident that our plan addresses the real threats to conservation of sage grouse in Utah, namely, fire, invasive grass, and excessive trees, rather than focusing on exaggerated or non-existent threats which result not in species conservation but serve only to constrain access to, and use of, federal lands. Again, thank you for this opportunity.

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The State will continue to protect, conserve and create sage grouse habitat regardless of the federal plans. We are confident that our plan addresses the real threats to conservation of sage grouse in Utah, namely, fire, invasive grass, and excessive trees, rather than focusing on exaggerated or non-existent threats which result not in species conservation but serve only to constrain access to, and use of, federal lands. Again, thank you for this opportunity.

Senator BARRASSO. Thank you very much, Ms. Clarke. We appreciate you being here to testify.

Next we will hear from Ms. Catherine Macdonald, who is the Oregon Director of the Conservation Programs of The Nature Conservancy.

Thanks for joining us.

STATEMENT OF CATHERINE MACDONALD, OREGON DIRECTOR OF CONSERVATION PROGRAMS, THE NATURE CONSERVANCY

Ms. MACDONALD. Thank you, Chairman Barrasso, members of the Subcommittee. It's an honor to have the opportunity to talk to you and testify about the federal agency's efforts to implement the greater sage grouse land use plan amendments.

I serve as the Oregon Director of Conservation Programs, and over the past six years I have worked closely with our federal agencies as well as state agencies and a wide variety of stakeholders to develop an all-lands-all-threats approach to greater sage grouse conservation in Oregon.

The Nature Conservancy has over 60 years of experience working with private landowners and government agencies across the nation and across the world. Our mission is to conserve the lands and waters upon which all life depends and our efforts are grounded in science and collaboration. We work to find solutions that are good for nature and support healthy economies. Stabilizing and increasing sage grouse populations is a priority for The Nature Conservancy.

We are witnessing a tremendous loss of native sage brush habitat across the West. Conserving habitat for sage grouse will benefit over 350 other species of conservation concern and healthy habitat for sage grouse also produces good range land for ranchers.

Conservancy scientists and practitioners are conducting research and helping private and public landowners protect and restore greater sage grouse habitat across the West. In Oregon, for example, we are advancing research in partnership with the agricultural research station in Burns. We are working with a commercial, Italian pasta maker and a little ingenuity and problem solving with the scientists at that research station to try and improve restoration success of sage grouse habitat after wildfire.

In addition, we helped to design a decision support tool to enable us to identify where the most important investments can be made to benefit sage grouse, and we've been providing technical assistance to ranchers who are interested in signing up for conservation agreements with the Fish and Wildlife Service.

The work of many over the past six years really resulted in an historic accomplishment. The federal agencies should be commended for the land use plan amendments they developed. The plan amendments applied sound science and provide a cohesive strategy for addressing threats across the range of the species. They were an essential ingredient to the 2015 decision that the greater sage grouse did not warrant listing under the Endangered Species Act. That was a high bar to reach.

In Oregon, the Bureau of Land Management, Fish and Wildlife Service, Forest Service and Natural Resource Conservation Service

have been valuable partners and great problem solvers. In 2010 they began working proactively with the state. Over the course of the next five years they continuously engaged over 60 stakeholders, representatives from local governments, the Oregon Cattlemen's Association, energy companies, conservation organizations, state agencies and our congressional delegation. Our delegation's leadership and staff participation in this effort was greatly appreciated. Collectively, we discussed challenges, developed coordinated solutions and these helped inform both the federal plans and our state action plan.

In addition, the Fish and Wildlife Service and Bureau of Land Management worked with the Oregon Cattlemen's Association and eight Oregon counties to develop candidate conservation agreements. These provide options, guidance and critical assurances for ranchers with sage grouse habitat. This kind of collaboration continues today. For example, the federal agencies are working closely with our state and local government to develop joint implementation methodologies for determining disturbance levels. In response to the threat of wildfire, the Bureau of Land Management is working closely with range land fire protection associations to coordinate wildfire response in priority habitat. And after the massive Soda fire that burned more than 400 square miles in Oregon and Idaho, the Federal Government provided funding for restoration efforts on private lands. These examples of collaboration give us optimism that we will be able to collectively resolve challenges in the future.

The Nature Conservancy remains concerned about legislative attempts to stall, delay or limit federal agencies' authority to implement their greater sage grouse resource management plan amendments.

Greater sage grouse populations have declined by more than 97 percent over historic counts. Given that the BLM and the Forest Service manage nearly two-thirds of the remaining sage grouse habitat, the federal plan amendments are a critical part of an effort to restore and conserve sage grouse. Delaying or suspending the plan amendments will distract us from the most important thing/task at hand and that is making significant progress implementing actions to stabilize and rebuild sage grouse populations.

The federal agencies need the authority and funding to act. Oregon is counting on our federal partners. We need our federal partners to implement their plans in Oregon and across the West to avoid the need to list the species in five years.

We urge Congress to give federal agencies support and the resources they need to collaborate with states and public land stakeholders to implement their plans. The federal agencies have already conducted public meetings across the West to get input on next steps. We hope that this engagement will continue and that all stakeholders will make a strong commitment to collaboration. With so much at stake, now is the time for us to focus on effective implementation.

Again, thank you for the opportunity to present testimony.
[The prepared statement of Ms. Macdonald follows:]

**U.S. Senate Committee on Energy & Natural Resources
Subcommittee on Public Lands, Forests, and Mining
Oversight hearing on sage-grouse conservation**

June 28, 2016

Testimony by Catherine Macdonald
Oregon Director of Conservation Programs
The Nature Conservancy

Chairman Barrasso, Ranking Member Wyden, and Members of the Subcommittee:

Thank you for providing me with this opportunity to testify at this oversight hearing on the status of the Bureau of Land Management and U.S. Forest Service's efforts to implement amendments to land use plans and specific management plans regarding Greater Sage-Grouse conservation, and those agencies' coordination with affected states.

I currently serve as the Oregon Director of Conservation Programs for The Nature Conservancy where I lead our state's conservation efforts, including our work on Greater Sage-Grouse. Over the past six years my staff and I have partnered with a wide range of stakeholders to develop an "all lands, all threats" approach to Greater Sage-Grouse conservation. Together we worked to identify measures that would reduce threats to Greater Sage-Grouse populations while allowing for agricultural production and development needed to generate economic returns vital to the region's rural communities.

As an organization, The Nature Conservancy has over 60 years of experience working with private landowners, federal, state, local, and tribal governments across the nation. We are the world's largest conservation organization with over one million members, including 25,000 household members in Oregon. We work in 69 countries around the world to conserve the lands and waters upon which all life depends.

Stabilizing and increasing populations of the Greater Sage-grouse across its range is a priority for the Conservancy. Our efforts are grounded in sound science and collaboration. Our philosophy is not to stop all development activity and economic use of land, but rather find solutions that prevent those activities from impacting the most critical lands and waters. Our work on the Greater Sage-Grouse across the West has been designed to use our scientific

expertise to inform the federal and state land use plans, and to provide our hands-on habitat protection and restoration expertise working directly with public and private landowners.

The story of the Greater Sage-Grouse is one of hope and opportunity. Actions to benefit the Greater Sage-Grouse will provide conservation benefits for many other species. Healthy sagebrush steppe habitats benefit more than 350 sagebrush-associated plants and animals of conservation concern as well as important game species such as elk, mule deer and pronghorn antelope. Just as importantly, people also benefit from healthy Greater Sage-Grouse habitat. In Oregon, a common refrain in ranching communities is that, “what’s good for the bird is good for the herd.” For example, efforts to prevent uncharacteristically severe fires protect forage for livestock.

The Bureau of Land Management (BLM) and USDA Forest Service (USFS) land use plans for Greater Sage-Grouse represent a historic effort among a large number of partners and a new model for imperiled species: working together to design and implement conservation actions for species before they warrant listing under the Endangered Species Act. These plans are an integral part of the effort to conserve Greater Sage-Grouse habitat. The federal agencies should be given the opportunity and resources they need to succeed in implementing the plans.

The federal plans provide a cohesive strategy for addressing threats across the range of the species. It was because of these plans that the U.S. Fish and Wildlife Service (USFWS) was able to make the determination that the Greater Sage-Grouse did not warrant listing under the Endangered Species Act. This averted a situation where every major project or permit affecting the Greater Sage-Grouse on federal lands would have had to undergo consultation with the USFWS. Additionally, a listing would have meant that private landowners and states would have been required to get permits from USFWS if their actions could harm the bird or its habitat.

Greater Sage-Grouse habitat crosses all ownership jurisdictions in 11 states, making both federal and state management plans essential for addressing threats to the species. The BLM and the USFS manage nearly two-thirds of the remaining Greater Sage-Grouse habitat; therefore, it is critical that both federal and state partners work proactively and collaboratively to implement the needed conservation actions.

In Oregon, the federal agencies began working with state officials in 2010 in response to the “Warranted but Precluded” Greater Sage-Grouse listing status in order to share information about the needs and issues related to renewable energy development and habitat conservation. They recognized that the future of Greater Sage-Grouse populations and the rural economies within its range are dependent on a coordinated landscape-scale approach to

conservation and economic decisions. Their efforts further evolved into the Greater Sage-Grouse Conservation Partnership in 2012. The Partnership was charged with the goal of developing a unified all-lands approach to Greater Sage-Grouse conservation in Oregon.

The Partnership engaged representatives from local governments, Oregon Cattlemen's Association, Oregon Hunter's Association, energy companies and conservation organizations, all of the relevant state agencies and our congressional delegation. Over the ensuing three years, a core team met almost every week and over sixty stakeholders met quarterly and at times monthly to discuss challenges, compare potential policy and management options and develop coordinated solutions.

Other early collaboration between the Oregon Cattleman's Association, the BLM and the USFWS resulted in the development of a Candidate Conservation Agreement which was signed in May 2013. In 2014, USFWS and Harney County Soil and Water Conservation District signed a Greater Sage-Grouse Candidate Conservation Agreements with Assurances. A year later Candidate Conservation Agreements with Assurances had been signed by all eight Oregon counties within the range of the Greater Sage-Grouse.

These agreements collectively establish a foundation for private landowners to implement conservation measures benefiting Greater Sage-Grouse in exchange for assurances that they will not be burdened by additional regulations if the species is listed as a federal threatened or endangered species. In Harney County alone, more than 53 landowners have signed agreements covering more than 320,000 acres.

Now that the land use plans are in place, The Nature Conservancy urges the Congress to give the Departments of the Interior and Agriculture agencies the support and resources needed to implement the plans. I know that Oregon is counting on our federal agencies to be full partners in advancing our all lands, all threats Greater Sage-Grouse conservation vision.

The Nature Conservancy remains concerned about legislative attempts to stall, delay or permanently limit the ability of federal agencies from collaborating to implement resource management plans. These plans deserve a chance to succeed. The Nature Conservancy believes we will realize the best results – for people and nature – when we tackle difficult challenges together. Working to protect and recover species before they are listed under the Endangered Species Act provides greater flexibility and allows state and federal agencies to put measures in place to help private landowners and development interests. In order to implement the plans and deliver the management needed to support recovery of the Greater Sage-Grouse the agencies need the resources to support coordination and collaboration amongst each other as

well as with— state and local governments, nonprofits, and businesses that rely on sagebrush habitat. Precisely because so much is at stake, we believe now is the time for all parties to focus on implementation and solutions that work for the Greater Sage-Grouse and are broadly supported.

We are aware that concerns have been raised about whether BLM and USFS are committed to continued coordination with stakeholders, including the States, in implementing the land use plans. The challenge of developing plans that were sufficiently comprehensive and consistent to avoid a listing was a high bar. Given the complexity of the effort and what is at stake, it is understandable that there have been challenges.

We recognize and are concerned by the remaining disagreements about the actions called for in the plans. The plans appear to allow for adaptive management that can support innovation and creativity at the local level to address many of these concerns. In our experience, the federal agencies have been working hard to continue to seek input from all of the stakeholders with an interest in the BLM's plan implementation. There have been numerous hearings across the West to examine how the plans' provisions covering activities such as mining, grazing and energy development should proceed. Opportunities for written comments have also been provided.

We hope that federal and state leaders and stakeholders will redouble their efforts and work together to narrow any remaining disagreements. The Nature Conservancy stands ready to work with the federal agencies, States and stakeholders.

In my state, collaboration between the Department of Interior agencies, the state of Oregon, local governments and all of the stakeholders continues today. We are building a common path forward to implement the Oregon and BLM plans. For example, BLM is working with the State and counties to share data and develop joint methodologies for determining how to best avoid, minimize and where necessary, provide offsets for disturbances within core Greater Sage-Grouse habitats. In addition, BLM is partnering with the Oregon Department of Forestry and the Rural Fire Protection Association to coordinate wildfire response in priority habitats. Finally, the BLM is working closely with the State to refine and update sage-grouse population monitoring in Oregon. Regular meetings continue to occur, and the BLM has agreed to sign a new memorandum of agreement with the State and local governments to coordinate a strategic and adaptive approach to implementation of the plans.

The agencies' response to the threat of wildfire across the West provides another example of their readiness to engage with state and local governments and stakeholders. In 2014, the

Conservancy came together with BLM and a wide ranging set of partners to address questions regarding catastrophic wildfires in Greater Sage-Grouse habitat. This led to the issuance of Secretarial Order 3336, Rangeland, Fire Prevention, Management, and Restoration by Secretary Jewell. The Department of the Interior has issued a series of recommendations to identify implementation actions based on interagency federal task groups working with tribes, state and local governmental partners, and other stakeholders.

Even where there is conflict over the plan, these efforts are bearing fruit. In response to the massive Soda Fire that burned over 285,000 acres — more than 400 square miles — of federal, state and private lands in southwest Idaho and eastern Oregon, the federal government entered into a formal partnership and provided funding for the Owyhee Watershed Council to provide opportunities for rangeland and habitat restoration on private lands in Owyhee County, Idaho.

We should not let disagreements over the plans slow down the work on the ground. Despite a population that was once estimated to number 16 million, today, the population has dwindled to 200,000 to 500,000 birds range-wide. The BLM and USFS land use plans are an integral part of the effort to conserve Greater Sage-Grouse habitat. These agencies should be given the chance and resources they need to succeed in implementing the plans. It is particularly important to fully fund and implement the great work on-the-ground already begun. It is equally important to closely monitor the success of those actions and be prepared to correct our course if necessary, to avoid the possibility of a future listing.

Again, thank you for the opportunity to present my testimony to the Subcommittee. I welcome any questions that you have for me.

Senator BARRASSO. Thank you very much, Ms. Macdonald.

Senator Risch, could I ask you to please introduce our next guest?

Senator RISCH. Thank you very much, Mr. Chairman.

It is my honor and privilege to introduce to the Committee and welcome her to the Committee, Brenda Richards.

Brenda has a higher calling than any of us. She is actually a county-elected official in Owyhee County, Idaho. She serves as the County Treasurer.

More importantly than that, she is actively involved in this issue and many other issues having to do with the public lands. She and her husband, Tony, are fourth generation ranchers in Owyhee County, larger than some states in this United States. They operate in both Idaho and Nevada.

She has served as on the Board of Directors of both Idaho and Nevada Cattlemen's Association, and she has served as the Federal Lands Chair for the Idaho Cattlemen's Association for five years. She worked with Senator Crapo very closely on the development of the Owyhee Initiative, and she has worked over 14 years on that and is in her fourth term as Chairman of the Board of Directors of that organization.

Although her degree is in accounting, she knows a lot more about sage grouse than a lot of PhDs who study this, because she is right out in the middle of it.

Ms. Macdonald, you talked about the Soda fire. That is ground zero for Brenda's ranch, and they have been greatly affected by the catastrophe that was the Soda fire.

With that, we welcome Brenda and appreciate hearing her thoughts which may run slightly contrary to some of the views that our agency friends have.

Thank you so much.

Senator BARRASSO. Ms. Richards, thank you for being here with the Committee. We welcome your testimony.

STATEMENT OF BRENDA RICHARDS, PRESIDENT, PUBLIC LANDS COUNCIL, AND RANCHER, OWYHEE COUNTY, IDAHO

Ms. RICHARDS. Thank you, Senator Risch, for that kind introduction.

Chairman Barrasso, Ranking Member Wyden and members of the Committee, my name is Brenda Richards and I am the President of the Public Lands Council. As stated, my husband, Tony, and I run a cow/calf operation in Reynolds Creek, Idaho, which is in Owyhee County.

The Public Lands Council is the only national organization that is dedicated solely to representing roughly 22,000 ranchers who graze in steward over 250 million acres of federal land while owning 140 million acres of adjacent private land. The businesses we operate form the economic nucleus of many rural communities, providing jobs and opportunity where it wouldn't otherwise exist.

Additionally, ranchers often serve as first responders in emergency situations across vast remote stretches of unoccupied federal lands. And simply put, public lands ranchers are an essential element of strong communities, healthy economies and productive range lands across the West.

Owyhee County is approximately 78 percent public land. Our terrain is high desert, and we have some of the best sage grouse habitat in the West. Owyhee County is in the heart of sage grouse habitat.

Like much of the rural West, ranching drives our economy and it has for more than 100 years resulting in healthy, productive range lands that are as critical to the people of Owyhee County as the air we breathe or the water we drink.

Ranchers are an essential component of any successful species conservation effort. Recognizing the integral role we play as land managers and the rising concerns about the sage grouse populations, Owyhee County established a sage grouse local working group in 1995. This local working group developed and implemented the Owyhee County's Sage Grouse Local Working Group Plan by 2000, and it's an effective conservation plan for the sage grouse.

Over the years we have met and overcome numerous challenges all through cooperation and coordination at the local level. Whenever the Department of Interior moved the goal posts on us, our working group responded, amending our plan to ensure that it remained viable and effective as a conservation effort ensuring the on the ground successes were still being achieved by local ranchers, land owners, state agencies and the local working group and that they would continue. This working group is still active today.

The results of voluntary local conservation efforts like this are all around the West, and they are undeniably a great part of the habitat that's being preserved and how the species is responding. According to the latest data from the August 2015 Western Association of Fish and Wildlife Agency's report, the population has increased by 63 percent on the sage grouse over the past two years alone.

So to be blunt, the BLM's top/down approach of forcing a one-size-fits-all, or the landscape-scale management of sage grouse conservation efforts through the plan amendments that were finalized last year, risk undoing over 20 years of effective collaboration between local stakeholders. Time and time again the BLM has touted their collaboration with the local working groups and the state partners in newsletters, press releases and sage grouse meetings, but unfortunately, the land use plans that have emerged reflect none of that effort.

Rather than embracing grazing as a tool for conservation benefits, these plan amendments impose arbitrary restrictions that seem to satisfy requirements from newly minted objectives such as focal areas and net conservation benefit. Perhaps because we were so easily regulated and utilized such a large area, many of these restrictions and limitations are aimed directly at grazing, totally ignoring the fact that proper grazing is not classified as a threat. Wildfire, invasive species and infrastructure are the major threats, all of which are most effectively managed through grazing as a tool.

To arbitrarily restrict grazing when it's needed is a recipe for failure. It is also critical to note that restrictions on federal grazing permits will absolutely impact adjacent private grazing land where as much as 80 percent of the productive sage grouse habitat exists.

The livestock industry has filed detailed comments on these plans at each stage in the process. While they are too numerous to go over here, these plans fail in a variety of important areas.

Again, primary threats to the greater sage grouse are wildfire and invasive annuals like cheat grass and require active management through tools like grazing, not arbitrary objectives such as those in the habitat objectives tables, 2–2, found throughout the plans.

Since the online newspaper, Greenwire, leaked the BLM's instructional memorandum draft several months ago, our industry has repeatedly requested that BLM engage us in the finalization of this guidance. Repeatedly those requests have been denied.

To date our only reference for what this guidance might look like comes from the leaked documents found online. We have been told we will get to see the documents once they are completed and ready for implementation, but we feel that is well past the point where we, as critical, on-the-ground partners, can offer any constructive input to the process.

In conclusion, this lack of collaboration, the misplaced focus on reducing grazing and disregard for ongoing local management is precisely the reason these plans must be thrown out. Local input and decades of successful collaborative conservation efforts must be the starting point for federal involvement not an afterthought.

I thank you for the opportunity to appear and welcome any questions.

[The prepared statement of Ms. Richards follows:]

Testimony of
Brenda Richards, President
Public Lands Council
June 28, 2016

Senate Energy and Resources Subcommittee on Public Lands, Forests, and Mining

Chairman Barrasso, Ranking Member Wyden, my name is Brenda Richards and I am the President of the Public Lands Council. My husband Tony and I run a cow/calf operation in Reynolds Creek, Owyhee County, Idaho. Beyond my involvement in the national Public Lands Council, National Cattlemen's Beef Association, the Idaho Cattle Association, and the Nevada Cattlemen's Association, I have served on the Boise District Bureau of Land Management Resource Advisory Council for seven years and have worked on many collaborative efforts including the Owyhee Initiative. It is my pleasure to testify for the committee today.

The Public Lands Council is the only national organization dedicated solely to representing the roughly 22,000 ranchers who operate on federal lands in the Western United States. Those 22,000 families graze and steward approximately 250,000,000 acres of federal land while owning approximately 140,000,000 acres of adjacent private land. Because of this arrangement, ranchers across the west have a vested interest not just in the health of their livestock, but in the rangelands that support their herds and the wildlife that thrive alongside them. The businesses they operate form the economic nucleus of many rural communities, providing jobs and opportunity where it wouldn't exist otherwise. Additionally, ranchers often serve as first responders in emergency situations across vast, remote stretches of unoccupied federal lands. Simply put, public lands ranchers are an essential element of strong communities, healthy economies, and productive rangelands across the West.

History of Sage Grouse Conservation

Ranchers are also an essential element of any successful species conservation effort. The best and most recent example of this is the comprehensive, multi-decade effort to conserve and protect sage grouse habitat across the bird's eleven state range. The livestock industry engaged early in these efforts, and BLM's own Fact Sheet for the Greater Sage Grouse Conservation Effort reflects that engagement by citing the nearly 10 million acres of sage grouse habitat conserved through voluntary programs like the NRCS's Sage Grouse Initiative as well as Candidate Conservation agreements on both private and federal lands.

Owyhee County – where my family lives and operates our ranch – covers about 7,697 square miles, has a population of 11,000, and has a public land footprint of about 78%. The terrain is primarily high desert, with some of the best sage brush habitat in the west. Simply put, Owyhee County is the heart of sage grouse country. Like much of the rural West, ranching has driven our economy for more than 100 years, which means that healthy, productive rangelands are as critical to the people of Owyhee as the air we breathe or the water we drink.

Ranchers in Owyhee County responded early to concerns about Sage Grouse populations and habitat. Realizing the integral role we play as land managers, and recognizing the rising concerns about sage grouse populations in the early 1990s, Owyhee County established a Sage Grouse Local Working Group in 1995, which later was given official charter status by USGS. This local working group - a diverse mix of land owners, county officials, state agencies, conservation groups, interested public, and the BLM – developed and implemented the Owyhee Sage Grouse LWG Plan by 2000, incorporating best managements practices, conservation and resource health strategies, and other relevant information into an effective conservation plan for the sage grouse. More than 20 years later, meetings are held quarterly, with field trips and other meetings scheduled as necessary.

We have met and overcome numerous challenges through the years, all through cooperation and coordination at the local level. When the US Fish and Wildlife Service finalized their Policy for the Evaluation of Conservation Efforts (or PECE Policy) in 2003, the LWG worked quickly and diligently to amend their plan in order to continue with their work and continue to be recognized as an effective and viable plan. When the BLM again “moved the goal posts” through amended requirements to address the BLM’s planning efforts to “incorporate appropriate conservation measures in Land Use Plans to conserve, enhance, and/or restore habitat...” the LWG once again made sure they amended their plan to include such measures and keep their plan recognized and viable.

Each time, these efforts were undertaken simply to ensure that the on the ground success being achieved by the local ranchers, land owners, state agencies and the local working group could continue.

This working group is still active today, with an average monthly meeting attendance of 25 people. Included in my written testimony are annual reports showing the numerous projects either funded by, approved by, or participated in by the local working group. Over \$318,000 to date has been channeled through the Owyhee Local Working Group on-the-ground projects to enhance and/or restore Sage Grouse habitat. This does not include an additional \$18,000 put towards a fire rehab project with the BLM for reseeding in a habitat area that was burned, nor does it reflect projects funded by the Department of Fish and Game that the local working group members endorsed and participated in.

Beyond our county and local working group participating in local efforts, we were also engaged in the Governor’s Task Force state plan. This is truly collaboration at its best on a very sensitive issue. Plans were agreed upon and signed off on by all stakeholders, with support from our State and local BLM, and great care was taken to find common ground and effective management solutions. Completion of the State Plan should have been a significant milestone and celebration, yet now we are finding our collaborative work disregarded, and the rangeland health and economic viability of our communities pushed out of the conversation in order to satisfy new unproven objectives. Items such as Focal Areas, mandatory stubble height requirements, and withdrawals will impose radically severe and unnecessary management restrictions on this vast area, in opposition to proven strategies. This departure also discourages stakeholders from future

engagement in broad based, collaborative projects once trust in the Federal land management agencies has been broken.

Results of Collaborative Conservation Efforts

Perhaps the most frustrating part is that the results of these voluntary, local conservation efforts around the West are undeniable – habitat is being preserved and the species is responding. According to the latest data from the Western Association of Fish and Wildlife Agencies (WAFWA) August 2015 report – *Greater Sage Grouse Population Trends: An Analysis of Lek Count Databases 1965-2015*, the number of male grouse counted on leks range-wide went from 43,397 in 2013 to 80,284 in 2015. That's a 63% increase in the past two years alone, and contributes to a minimum breeding population of 424,645 birds, which does not include grouse populations on unknown leks. Additionally, the WAFWA report found that "At range-wide scales, core areas seem to be holding up well based on model results showing average males per lek trend estimates since 1965..." and "The most recent 10-year trend was increasing for all range-wide leks, stable for core leks, but negative for leks at the periphery."

While these findings undoubtedly contributed to the US Fish and Wildlife Service's September 2015 finding that the Greater Sage Grouse was "not warranted" for protection under the Endangered Species Act, it does not appear that they were given similar consideration in preparation of the RODs and ARMPAs that accompanied that FWS decision. In fact, the BLM's lack of deference to the successful, ongoing conservation efforts of states and local partners stands in stark contrast to their positive results on the ground.

Federal Sage Grouse Plan Amendments

To be blunt, the BLM's top down approach of forcing one-size-fits-all or "landscape scale" management of sage grouse conservation efforts through the plan amendments that were finalized last year will set the decades of success and proven stakeholder collaboration we've achieved at least three giant steps backwards. Time and time again, the BLM has touted their collaboration with the local working groups and state partners in newsletters, press releases, and Sage Grouse meetings. Unfortunately, those press releases are not policy, and the LUPs that have emerged reflect a very different set of priorities that ignores our years of successful collaboration and partnership.

Any flexibility and recognition of the on the ground continued work and success is ignored in favor of restrictions that are imposed seemingly without any forethought or local input. Rather than embracing grazing as a resource and tool for conservation benefit, these plan amendments impose arbitrary restriction to satisfy requirements for newly minted objectives such as focal areas and "net conservation benefit."

Perhaps because grazing is so easy to restrict on Federal land, many of these restrictions and limitations are aimed directly at the grazing – totally ignoring the fact that grazing is not classified as a threat to the sage grouse. Wildfire, invasive species and infrastructure are the major threats, all of which are most effectively managed through grazing. To arbitrarily restrict grazing when it's needed most is a recipe for failure.

It is also critical to note that restrictions on federal grazing land will consequently impact adjacent private land grazing and management – since the adjacent private land owners are typically also the Federal permittees. This is important because we know from decades of scientific evaluation that as much as 80% of productive sage grouse habitat exists on those adjacent private lands, not on the permit ground. Successful sage grouse conservation simply cannot occur without the hard work and commitment of the ranching community – both public and private – and to overlook our commitment and role in this effort in favor of arbitrary federal grazing restrictions will ensure a return to declining populations.

This lack of consideration was underscored even further when the BLM denied appeals for consistency with State management plans by the Governors of Idaho, Nevada, North Dakota, South Dakota, and Utah. An October 13, 2015 entry in the Federal Register highlights the BLM's split response to those appeals for consistency – first they pay lip service to their efforts to collaborate, stating: *“A cornerstone of the BLM's sage grouse planning process has been coordination and collaboration with the affected states...”* only to go on to explain elsewhere in the notice that *“After careful consideration of the concerns raised by the five states, the State Directors decided not to adopt the recommendations made by the Governors.”*

These appeals for consistency and their blanket denial by BLM came at the same time that Department of Interior officials from Secretary Jewell to Director Kornze were again touting the historic collaborative efforts that went into avoiding a listing under the Endangered Species Act. In reality, their focus has been, and appears to remain, on enacting all the restrictions of established conservation instruments like an ESA listing or creation of an Area of Critical Environmental Concern (ACEC), but without actually making that case through the appropriate regulatory process. Instead, they are attempting to accomplish these goals in a de-facto manner through the resource management planning process, which will prevent establishment of any meaningful recovery benchmarks or plans – only in-perpetuity restrictions that inhibit existing effective management.

Despite these comprehensive efforts at the state and federal level, and over several years of objections and numerous substantive comment submissions by national, state, and local livestock associations and industry groups, the BLM and US Forest Service finalized two Records of Decision covering the entirety of the range of the Greater Sage Grouse in September of last year. Accompanying the RODs were numerous plan amendments impacting over 165 million acres in 11 Western states.

Livestock Industry Concerns and Objections

The livestock industry has many concerns with the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Resource Management Plans (RMPs) and Land Use Plans Amendments (LUPAs) in regard to the greater sage grouse. The Public Lands Council and the National Cattlemen's Beef Association filed detailed comments on each plan at the Draft EIS stage. Industry has also joined litigation in several states over our concerns.

While too numerous to list in detail here, these plans fail in a variety of important areas. As mentioned previously, the primary threats to the Greater Sage Grouse – particularly in the Great

Basin region – are wildfire, invasive annual grasses like cheatgrass, and conifer encroachment. These threats all require active management through tools like grazing, not arbitrary objectives such as those in the Habitat Objectives Table 2-2 that is found in all the plan amendments.

The Habitat Assessment Framework or HAF, which forms the basis for monitoring under the plans, is essentially a monitoring snapshot which is geared to static conditions. The problem with this approach is that rangelands are anything but static. They are incredibly dynamic and must be monitored for trends. To ignore this concept is setting the agencies and permittees up for failure. The static HAF ignores best available scientific evidence showing that properly grazed bunch grass systems are more resilient and more resistant to fire than ungrazed systems – in other words, proper grazing specifically addresses the biggest threats to sage grouse habitat, while reduced grazing allows these threats to compound. This is particularly true after a wet spring like we've had in much of the West. Grass is abundant this year, and as it dries out we could experience a catastrophic fire season, which will be devastating for wildlife, ranchers, and local communities alike.

Since the online newspaper Greenwire leaked the BLM's draft Grazing Implementation Memo and Implementation Guide several months ago, our industry has repeatedly requested that BLM engage us in the finalization of this guidance. Repeatedly, those requests have been denied. To date, our only reference for what this guidance might look like comes from the leaked documents found online. We have been told repeatedly that we will get to see the documents once they are completed and ready for implementation – well past the point where we, as critical on-the-ground partners, could offer any constructive input into the process.

In conclusion, this lack of collaboration, misplaced focus on reduced grazing footprint rather than proper application of grazing as a tool, and disregard for ongoing local management is precisely the reason these plans must be thrown out, and the Federal land management agencies must reevaluate their involvement in the conservation of the greater sage grouse. Local input and decades of successful, collaborative conservation efforts must be the starting point for Federal involvement, not an afterthought.

Thank you for the opportunity to appear, I welcome any questions the Subcommittee may have.

Senator BARRASSO. Well, thank you, Ms. Richards. We appreciate your testimony.

Next we will hear from Ms. Katie Sweeney, who is the Senior Vice President and General Counsel of the National Mining Association.

Thanks for joining us.

STATEMENT OF KATIE SWEENEY, SENIOR VICE PRESIDENT & GENERAL COUNSEL, NATIONAL MINING ASSOCIATION

Ms. SWEENEY. Good afternoon, Chairman Barrasso, other members of the Subcommittee. My name is Katie Sweeney. I appreciate the opportunity to testify on behalf of the National Mining Association (NMA) about the impacts of the BLM and Forest Service land use plans related to sage grouse conservation.

I want to emphasize that NMA shares the concerns of other panelists regarding the onerous restrictions imposed by the land use plans; however, today I will focus my testimony on an outgrowth of the plans that uniquely impacts the mining industry.

As a consequence of the final land use plans, the Interior Department is proposing to withdraw ten million acres of sage grouse habitat from new mining operations, the largest land withdrawal in the history of the Federal Land Policy and Management Act. This is particularly troubling given that mineral development is already either restricted or banned on more than half of all federally-owned lands.

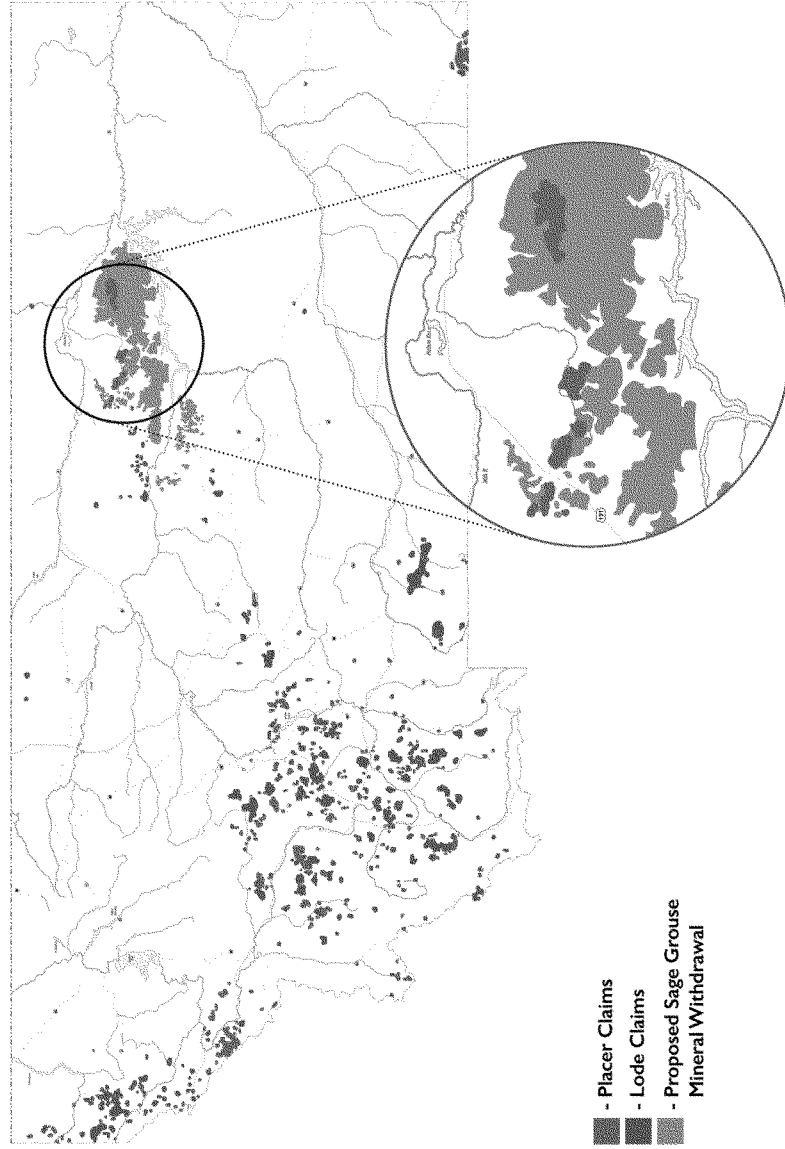
The agencies assert that the mineral withdrawal is necessary to conserve the sage grouse but then attempts to downplay the impacts of the withdrawal by claiming that the lands involved are not highly prospective for miners.

But existing USGS and state data that was submitted during the scoping period rebut this assertion, and one of the best indicators of mineral potential in any given area are the presence of existing mining claims. Yet BLM and Forest Service never quantified the number of existing mine claims in the area recommended for withdrawal, nor did BLM attempt to do so in the scoping process.

NMA's research, that's attached to my testimony, identified nearly 6,000 existing mining claims in the ten-million-acre withdrawal area. The maps which I'm going to bring up on the screen, not only show that these areas are likely to be highly prospective for minerals, but the quantification of the footprint of mining activities in the proposed withdrawal area calls into question a necessity of the entire withdrawal.

[The information referred to follows:]

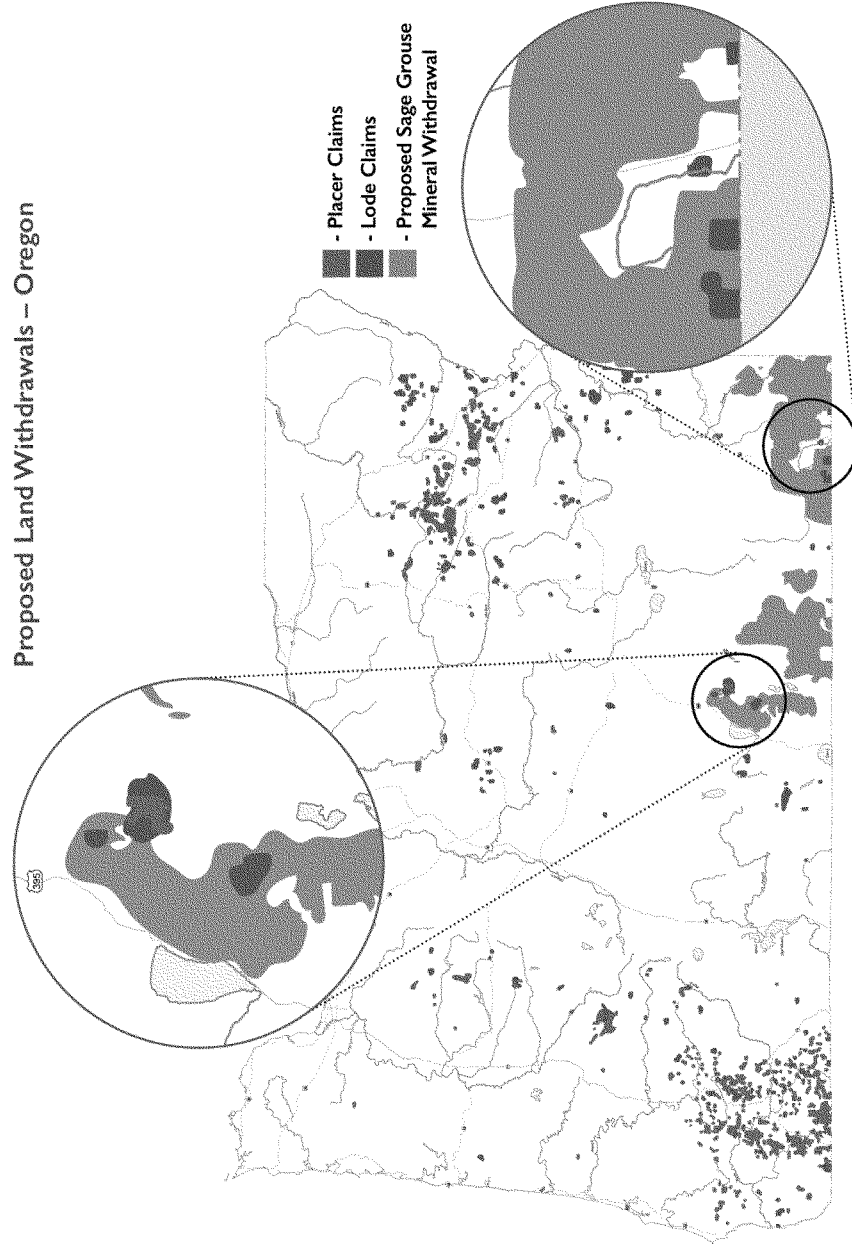
Proposed Land Withdrawals – Montana

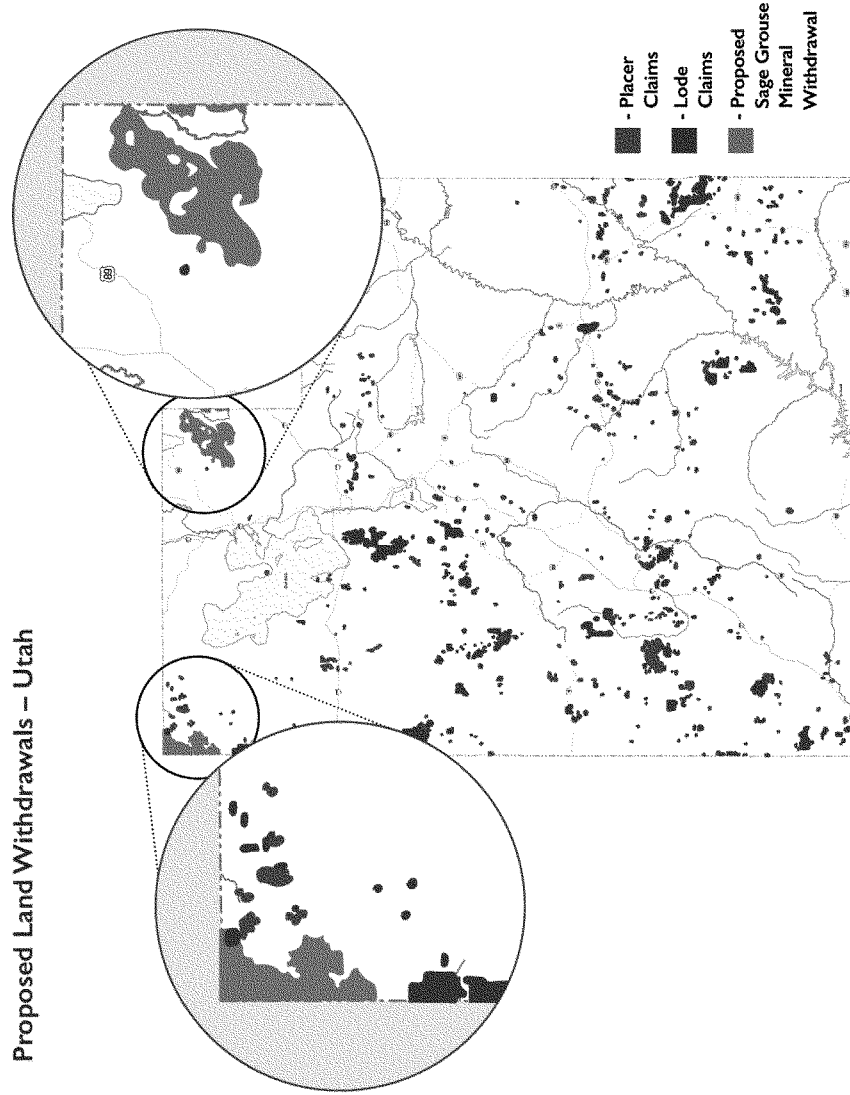


Proposed Land Withdrawals – Nevada

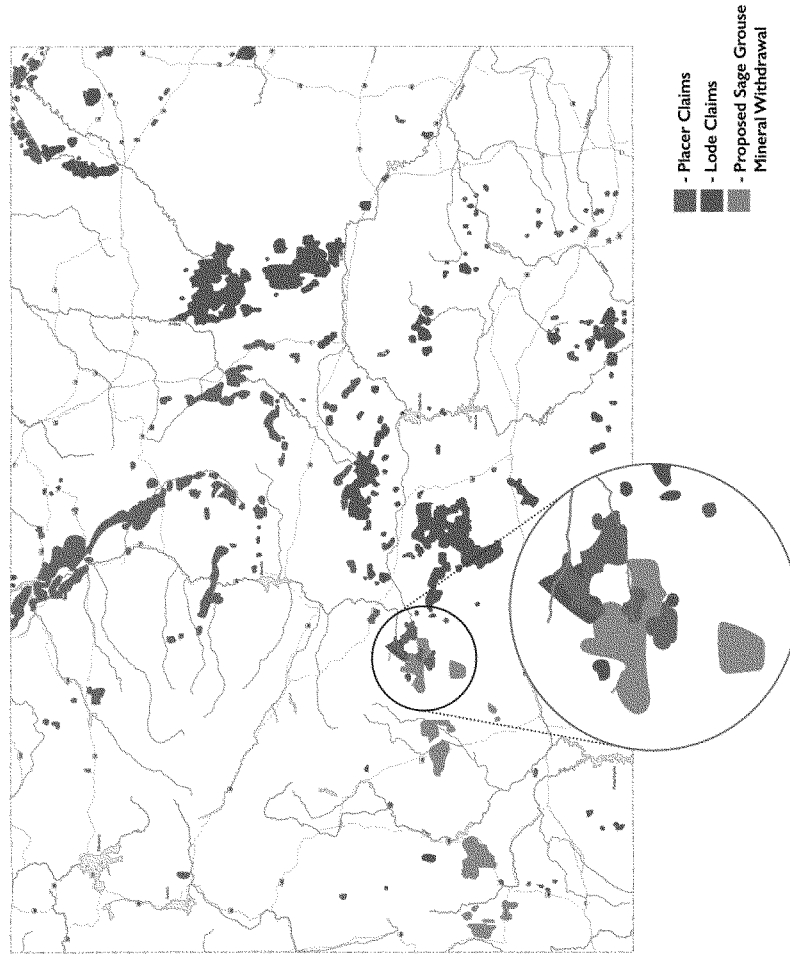


Proposed Land Withdrawals – Oregon





Proposed Land Withdrawals – Wyoming



The maps displayed show the overlap of each—of existing mining claims and the proposed withdrawal area in each of the affected states. We identified the number of existing mining claims in the proposed withdrawal area, the total acreage of those claims and the percentage of the proposed withdrawal area impacted by the existing mining claims, and I think the results are pretty telling.

These are in alphabetical order, not order of importance. I know that there are many Committee members who have—who represent these states.

In Idaho. So, you can see the overlap, the green and then the red and blue dots are the mining claims. We are looking at less than one percent of the nearly four million acres withdrawn are impacted by existing claims.

Hold on. Uh oh, sorry. We'll go to Montana, I promise. I can find it. There we go. In Montana, it's less than two percent of the nearly one million acres withdrawn. In Nevada, it's less than three percent of the nearly three million acres withdrawn. In Oregon, it's less than one percent of the nearly two million acres withdrawn. In Utah, it's less than one percent of the more than 230 thousand acres withdrawn. And in Wyoming, it's less than three percent of the more than 250,000 acres withdrawn. So in total the existing mining claims impact only about one percent of the ten-million-acre area. How can a ten-million-acre withdrawal be justified by an activity with this small of an existing footprint?

For comparison sake, in 2015, and I think this is the wildfire everybody else was mentioning, that wildfire eliminated 200,000 acres of BLM sage grouse habitat. The footprint of mining in the withdrawal area barely registers compared to the impact of a single, large wildfire.

The withdrawal will do very little to protect the sage grouse or its habitat as mining activities are not a major threat. And as others have said, government reports prepared in conjunction with the land use plans confirm this fact as they uniformly conclude wildfire and invasive species are the greatest threats. Data compiled by the U.S. Geological Survey clearly show that habitat loss due to mining, range wide, are minor totaling only about 3.6 percent and can be mitigated with appropriate project specific conservation measures.

The proposed withdrawal also ignores the role that mining companies played in improved habitat for sage grouse with voluntary conservation efforts and well-designed reclamation, mining activities regularly result in higher value habitat than if the same lands were left unmanaged. The impacts of the withdrawal reach far beyond mining.

Our domestic mining industry serves as the front end of the supply chain for the minerals and materials vital to the success of our health care, transportation, communication, national defense and countless other industries. Further limiting access to domestic minerals is detrimental. In the last two decades the United States' dependence on mineral imports has doubled, and today less than half of the minerals American manufacturers need are sourced domestically.

In summary, the proposed withdrawal is simply bad public policy that comes with a high price tag for U.S. mining and the vast sec-

tors of our economy that depend upon a reliable and secure supply chain of minerals and metals.

I appreciate the opportunity to testify.

[The prepared statement of Ms. Sweeney follows:]



Testimony of
Katie Sweeney
Senior Vice President & General Counsel
National Mining Association
before the
United States Senate
Energy and Natural Resources
Subcommittee on Public Lands, Forests, and Mining

*Subcommittee oversight hearing on the status of the Bureau of Land
Management and Forest Service's efforts to implement amendments to
land use plans and specific management plans regarding sage grouse
conservation, and those agencies' coordination activities with affected
states*

June 28, 2016

Katie Sweeney
 Senior Vice President & General Counsel
 National Mining Association

Good morning. My name is Katie Sweeney and I am Senior Vice President and General Counsel of the National Mining Association (NMA). NMA is the national trade association representing the producers of most of the nation's coal, metals, industrial and agricultural minerals; manufacturers of mining and mineral processing machinery, equipment and supplies; and engineering and consulting firms, financial institutions and other firms serving the mining industry. I appreciate the opportunity to testify today about the impacts of the Bureau of Land Management's (BLM) and Forest Service's land use plans related to sage grouse conservation.

To begin, I want to emphasize that NMA shares the concerns of others on this panel regarding the more onerous development restrictions imposed by the land use plans such as surface occupancy restrictions, lek buffers and disturbance caps. However, today I would like to focus my testimony on an outgrowth of the plans that uniquely impacts the mining industry – the withdrawal of millions of acres of federal land from mining.

Final Plans Recommend Large Scale Mineral Withdrawal

Based on recommendations by BLM and Forest Service in the final land use plans, the Department of the Interior (DOI) is proposing to withdraw 10 million acres of sage grouse habitat from new mining operations. As such, the land use plans have set into motion the largest land withdrawal in the history of the Federal Land Policy and Management Act (FLPMA). Mineral development is already either restricted or banned on more than half of all federally owned public lands. Given the vast amount of federal lands already closed to mining operations, excluding 10 million acres of additional lands poses serious hardship to the nation's economic and mineral security.

The Withdrawal is Not Necessary to Protect Sage Grouse or Its Habitat

Unfortunately, this withdrawal will do very little to protect the sage grouse or its habitat as mining activities are not a major threat. As the government reports prepared in conjunction with the listing determination or the land use plans uniformly conclude, wildfires and invasive species as the greatest threats to sage grouse throughout its range.

BLM summarized the impacts of these threats in its Record of Decision (ROD) approving the land use plans, stating: "The primary threats [to sage grouse] are the widespread present and potential impacts of wildfire, the loss of native habitat to invasive species, and conifer encroachment."¹ The cycle of devastating wildfires and the damage they cause to slow recovering sage-brush, coupled with the invasion of faster growing cheatgrass is well known and is without dispute the paramount driver to sage

¹ *Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho, Southeastern Montana, Nevada, and Northeastern California, Oregon, Oregon, and Utah*. September, 2015, at Sec. 1.3.

grouse habitat degradation.² Similarly, the FWS' 2013 Greater Sage Grouse Conservation Objectives Team Report (COT Report) identifies fire as "one of the primary factors linked to loss of sagebrush-steppe habitat and corresponding population declines of greater sage-grouse."³ The cycle of fire and pervasion of invasive species is well documented as the primary threat to sage grouse habitat. According to the COT Report:

The increase in mean fire frequency in sagebrush ecosystems has been facilitated by the incursion of nonnative annual grasses, primarily *Bromus tectorum* (cheatgrass) and *Taeniatherum asperum* (medusahead) (Billings 1994; Miller and Eddleman 2001). The positive feedback loop between exotic annual grasses and fires can preclude the opportunity for sagebrush to become re-established. Exotic annual grasses and other invasive plants also alter habitat suitability for sage-grouse by reducing or eliminating native forbs and grasses essential for food and cover.⁴

Additionally, data compiled by the United States Geological Survey (USGS) clearly show that the habitat loss due to mining (locatable, leasable and salable) range-wide are minor, totaling about 3.6 percent, and can be mitigated with appropriate project-specific conservation measures including off-site mitigation for unavoidable impacts.⁵ Such data begs the question of why BLM is deviating so significantly from its multiple use mandate in moving forward with the withdrawal.

The proposed withdrawal also ignores the role that mining companies play to improve habitat for sage grouse. For example, well-designed reclamation of mining activities on public lands can ultimately lead to higher value habitat than if the same lands were left unmanaged. This principle is particularly applicable to sage grouse habitat where mining companies work to prevent spread of invasive species and routinely restore low-value habitats into prime potential sage grouse habitat.

High Mineral Potential Lands Are at Risk

Simultaneously with the non-listing decision regarding the sage grouse, Interior began to take steps to initiate the withdrawal. To defend its position on the withdrawal, various Interior officials indicated that "the withdrawn areas do not appear to be highly prospective for miners."⁶ Such blanket statements about 10 million acres are disingenuous. Historically, federal lands have been an important source of domestic

² *Long-Term Effects of Wildfire on Greater Sage-Grouse— Integrating Population and Ecosystem Concepts for Management in the Great Basin*, United States Geological Survey, 2015, Page 32

³ See, U.S. Fish and Wildlife Service, *Greater Sage-Grouse, Conservation Objectives Team (COT): Final Report*, February, 2013, pg. 10

⁴ *Id.*

⁵ *Summary of Science, Activities, Programs, and Policies That Influence the Rangewide Conservation of Greater Sage-Grouse (Centrocercus urophasianus)*; USGS Open-File Report 2013–1098 p. 71

⁶ *Greenwire*, "Interior proposes banning new mining on 10M sage grouse acres," Sept. 23, 2015 (available at <http://www.eenews.net/greenwire/stories/1060025186/search?keyword=highly+prospective> – subscription required).

mineral production. Twelve western states are the source of much of our nation's mineral endowment and these states have a significant share of federal lands. In fact, these same states account for 75 percent of our nation's metals production. Such statements also are rebutted by existing USGS and state data that was submitted during the scoping period on the proposed withdrawal.

Perhaps one of the best indicators of mineral potential in any given area are the presence of existing mining claims. BLM and Forest Service never quantified the number of existing mining claims in the area they recommended for withdrawal. Nor did BLM attempt to do so in the scoping process for the proposed withdrawal. NMA, using the BLM Land Records 2000 database, and the maps of the proposed withdrawal area, identified nearly 6000 existing mining claims in the six states impacted by the withdrawal: Idaho, Nevada, Montana, Oregon, Utah and Wyoming. This information is contained in a NMA fact sheet attached to this testimony.

The data in the fact sheet is important not only to rebut the notion that these areas are not highly prospective, but they also provide perspective about the footprint of mining activities in the proposed withdrawal area that call into question the necessity of the withdrawal. For each impacted state, NMA identified the number of existing mining claims in the proposed withdrawal area, the total acreage of those claims, and the percentage of the proposed withdrawal area impacted by existing mining claims. The results are telling. In Idaho, mining's footprint is less than one percent of the nearly four million acres withdrawn. In Montana, mining's footprint is less than two percent of the nearly one million acres withdrawn. In Nevada, mining's footprint is less than three percent of the nearly three million acres withdrawn. In Oregon, mining's footprint is less than one percent of the nearly two million acres withdrawn. In Utah, mining's footprint is less than one percent of the more than 230,000 acres withdrawn. And in Wyoming, mining's footprint is less than three percent of the more than 250,000 acres withdrawn.

State	Proposed acreage to be withdrawn from mining	Number of active mining claims in Sage Grouse Focal Areas	Acreage of active mining claims in Sage Grouse Focal Areas	Percentage of focal areas impacted by active mining claims
Idaho	3,854,622	634	13,098	0.34%
Montana	983,156	677	13,986	1.42%
Nevada	2,797,399	3762	77,722	2.78%
Oregon	1,929,580	373	7644	0.39%
Utah	230,808	9	186	0.08%
Wyoming	252,162	13	5140	2.04%

In no state, did existing mining impact more than three percent of the withdrawal area. In fact, in total, existing mining claims impact only about one percent of the 10 million acre area.

How can a 10 million acre withdrawal be justified by an activity with this small of an existing footprint? Wildfires, arguably the biggest threat to sage grouse habitat can destroy hundreds of thousands of acres of habitat in mere days. In 2015, a single fire in Idaho eliminated 200,000 acres of BLM sage grouse habitat. The footprint of mining in the withdrawal area barely registers compared to the impact of a large wildfire and as mentioned previously, the active management of mine sites routinely results in improved sage grouse habitat. BLM is clearly looking at the wrong threats in moving forward with the withdrawal.

This Withdrawal is Contrary to BLM's Multiple Use Mandate

BLM is also deviating from its own multiple use mandate and policies in pursuing the withdrawal. While the goals of FLPMA are many, including protecting the environmental and other key values of the public land, the underpinning of the statute is that management of the public land should be on the basis of multiple use and sustained yield unless otherwise specified by law. A component of such multiple use includes the requirement that public land be managed in a manner that "recognizes the Nation's need for domestic sources of minerals." BLM has in the past translated that mandate in the context of mining in its 2006 Minerals Policy Statement which indicates that with few exceptions, mineral exploration and development can occur concurrently or sequentially with other resource uses. NMA articulated in its comments on the scoping process for the withdrawal its legal concerns with BLM's failure to comply with its multiple use mandate as well as BLM's authority to withdrawal over 5000 acres of public lands without congressional action so I will not repeat those here today.

Impacts Reach Far Beyond Mining

Our domestic mining industry serves as the front-end of the supply chain for the minerals and materials vital to the success of countless other industries. Today, mining provides for nearly two million jobs with above-average wages and benefits, generates \$46 billion annually in federal, state and local taxes and provides key minerals to industries that make up 14 percent of our GDP. The materials produced by U.S. mining support our healthcare, transportation, communication, energy and national defense sectors, and many others. They are the integral building blocks of everyday items like cell phones, laptops and cars, as well as infrastructure and lifesaving medical devices.

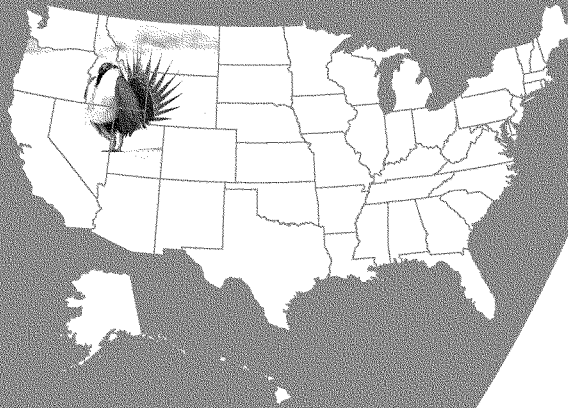
Unfortunately, we do not get to choose exactly where to mine for these critical minerals. Given the elusive nature of mineral deposits, discoveries cannot occur without widespread exploration. Such extensive exploration activities are required because concentrations of useful minerals rich enough to form ore deposits are rare phenomena. Commercially extractable concentrations form only where special physical and chemical conditions have favored their accumulation. Exploration geologists frequently cite the metric that at best approximately 1 out of 10,000 deposits has the chance to be transformed into an operating mine. The difficulty in finding commercial mineral deposits underlies the mining industry concerns about large scale mineral withdrawals, as crucial future resources may be put off limits. Finding new resources and delineating their economic potential is critical to keeping the commodity pipeline flowing.

Further limiting access to domestic minerals is poor public policy. In the past two decades, the United States' dependence on mineral imports has doubled and today, less than half of the minerals American manufacturers need are sourced domestically. U.S. industries are currently 100 percent import dependent on 19 key minerals and more than 50 percent import reliant on another 24 mineral commodities that are potentially available in the U.S. Our growing dependence on imports leaves many key domestic industries unnecessarily vulnerable to disruptions from extended, complex and fragile supply chains.

Conclusion

The proposed withdrawal is simply bad public policy that comes with a high price tag for U.S. mining and the vast sectors of our economy that depend upon a reliable and secure supply chain of minerals and metals. I appreciate the opportunity to testify before the subcommittee.

U.S. Department of the Interior's Sweeping Land Withdrawals
Threaten U.S. Minerals Security



March 2018

Department of Interior Land Withdrawals

Unprecedented Proposal Harms U.S. Economy and the Environment

Based on recommendations by the U.S. Bureau of Land Management (BLM) and U.S. Forest Service (FS), the Department of Interior is proposing to withdraw up to 10 million acres of sage grouse habitat from new mining operations. This over-reaching and unprecedented action would seriously damage the United States economy and mineral security, while harming the very species it purports to protect.

Sage Grouse Decision – Bad Public Policy

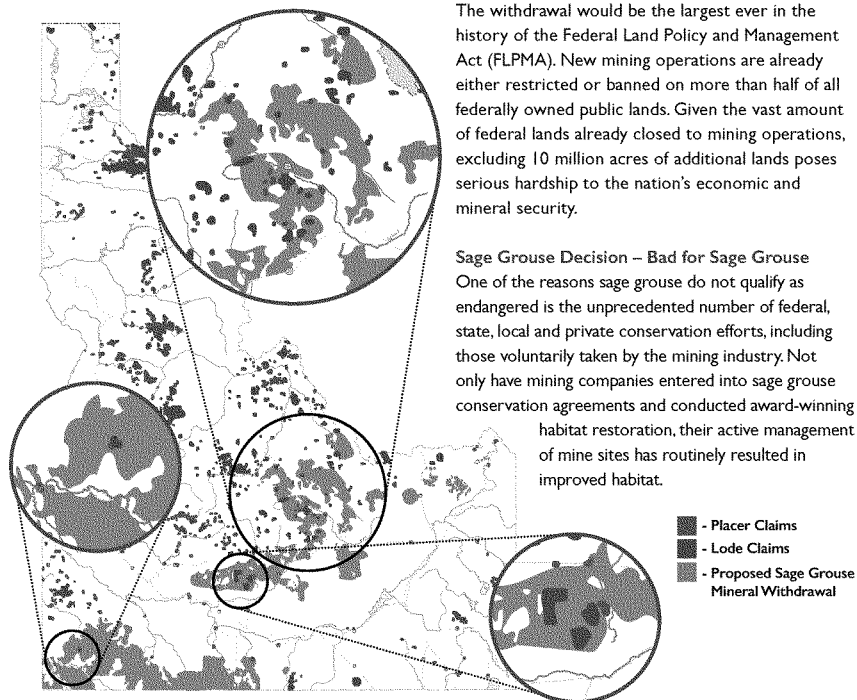
After years of exhaustive studies, The Department of the Interior (DOI) recently announced that listing of the greater sage grouse as endangered under the Endangered Species Act (ESA) is not warranted. Despite the department's finding that mining is not a major threat to the bird or its habitat, DOI incomprehensibly is proposing to withdraw an enormous amount of land in six states from consideration for future mining activity.

The withdrawal would be the largest ever in the history of the Federal Land Policy and Management Act (FLPMA). New mining operations are already either restricted or banned on more than half of all federally owned public lands. Given the vast amount of federal lands already closed to mining operations, excluding 10 million acres of additional lands poses serious hardship to the nation's economic and mineral security.

Sage Grouse Decision – Bad for Sage Grouse

One of the reasons sage grouse do not qualify as endangered is the unprecedented number of federal, state, local and private conservation efforts, including those voluntarily taken by the mining industry. Not only have mining companies entered into sage grouse conservation agreements and conducted award-winning habitat restoration, their active management of mine sites has routinely resulted in improved habitat.

Proposed Land Withdrawals – Idaho



Importance of Minerals to U.S. Economy

The value added by major industries that consume the \$78 billion of minerals produced in the U.S. is an estimated \$2.5 trillion (2014), or 14 percent of our GDP.

Mining's direct and indirect economic contribution includes nearly 2 million jobs with wage and benefits well above the state average for the industrial sector.

Domestic mining generates \$46 billion in tax payments to federal, state and local governments.

Importance of Minerals to U.S. Security

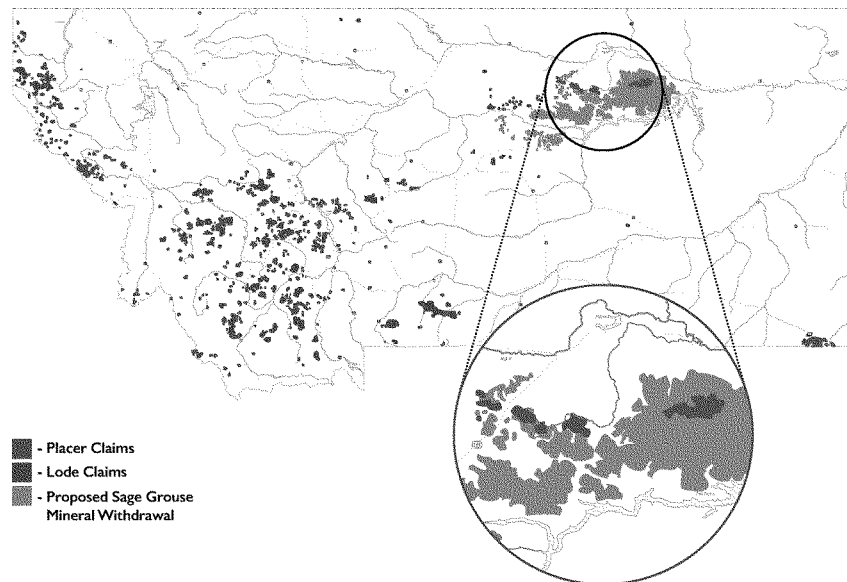
Our nation's import dependence for key mineral commodities has doubled over the past two decades.

The U.S. is import dependent for 19 key mineral resources and more than 50 percent import dependent for an additional 24 mineral commodities.

Less than half of the mineral needs of U.S. manufacturing are met from domestically mined resources.

"Our nation's import dependence for key mineral commodities has doubled over the past two decades."

Our growing dependence on imports leaves many key domestic industries unnecessarily vulnerable to disruptions from extended, complex and fragile supply chains.

Proposed Land Withdrawals – Montana

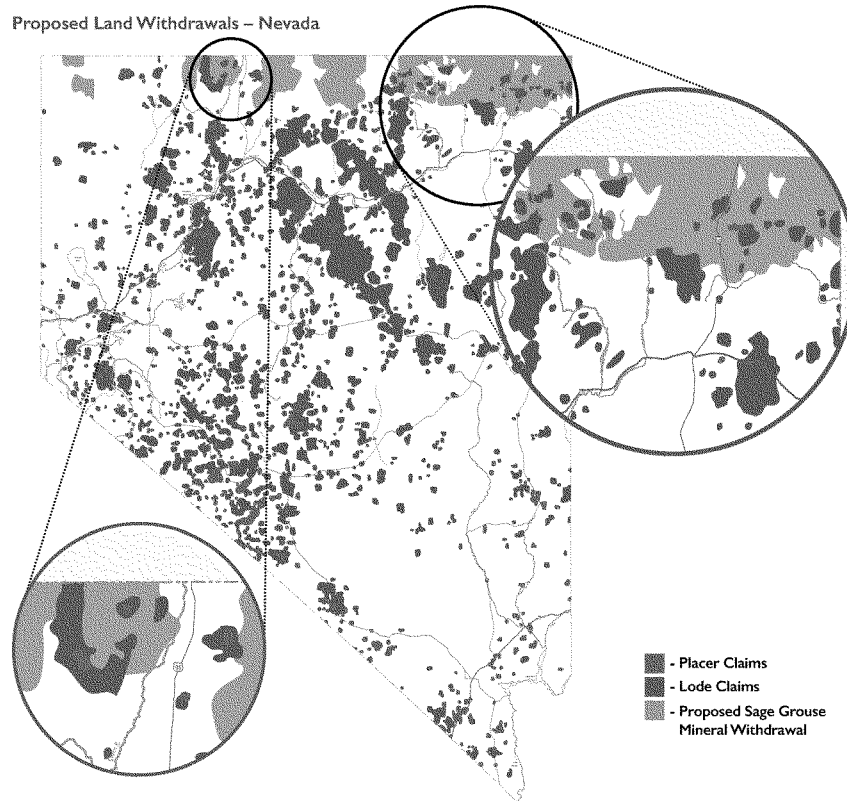
Minerals Production Requires Public Lands Access
Federal lands account for as much as 86 percent of the land area in certain Western states and these same states account for 75 percent of our nation's metals production.

"Already half of the nation's hardrock mineral estate is either off-limits or under restrictions for mineral development."

Already half of the nation's hardrock mineral estate is either off-limits or under restrictions for mineral development. An additional 10 million acre withdrawal of federal lands for a single species will have a significant impact on the ability to develop domestic minerals on federal lands.

Developable mineral deposits are difficult to find as concentrations of useful minerals rich enough to form ore deposits are rare phenomena. As such, widespread exploration for minerals, including resource-rich federal lands, is necessary to find these elusive deposits.

Proposed Land Withdrawals – Nevada



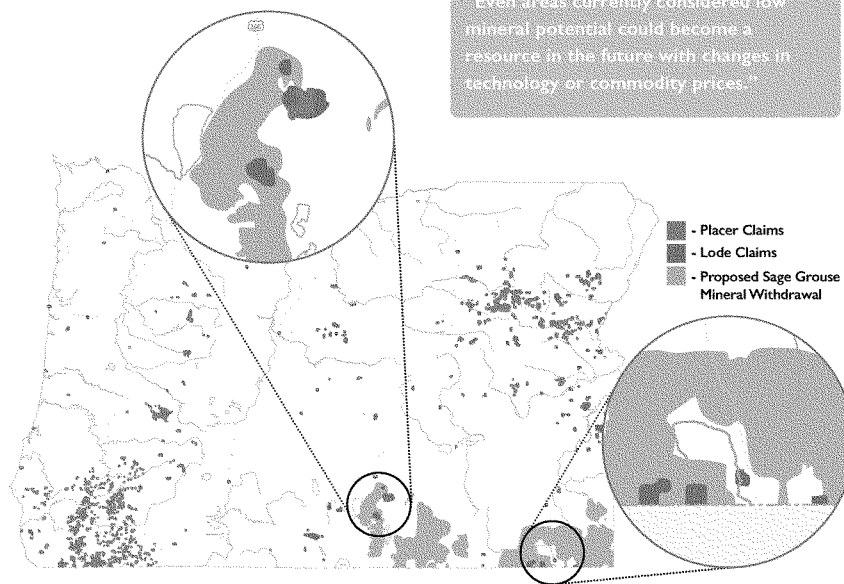
Active Mining Claims Indicate Additional Mineral Potential

BLM statements that the proposed withdrawal areas are of low mineral potential are unconvincing. Existing U.S. Geological Survey data indicate that there are likely recoverable mineral resources in many of these areas. According to BLM records, the area proposed to be withdrawn includes nearly 5500 active mining claims.

The presence of mining claims is a good indication of known mineral potential. The mineral potential report required prior to a withdrawal decision is expected to confirm significant mineralization in much of the proposed withdrawal area. Even areas currently considered low mineral potential could become a resource in the future with changes in technology or commodity prices.

State	Proposed acreage to be withdrawn from mining	Number of active mining claims in Sage Grouse Focal Areas	Acreage of active mining claims in Sage Grouse Focal Areas	Percentage of focal areas impacted by active mining claims
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Utah	230,808	9	186	0.08%
Wyoming	252,162	13	5140	2.04%

Proposed Land Withdrawals – Oregon



10 Million Acres – Excessive and Unnecessary

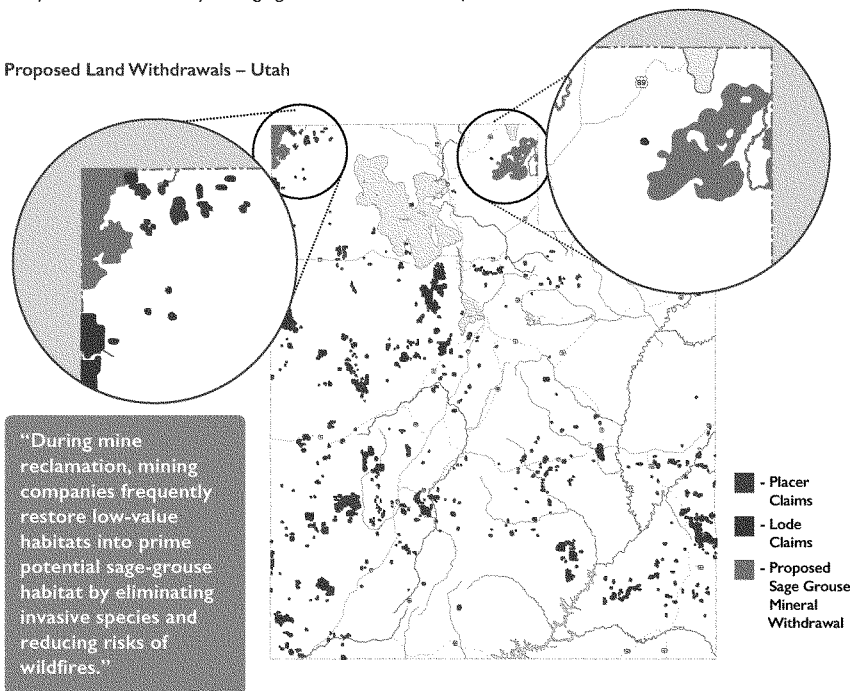
DOI maintains that the withdrawal is necessary to prevent a listing of the sage grouse. However, most of the reports prepared for the listing determination do not identify mining activities as a significant threat and instead point to wildfires and invasive species as the greatest threats.

In fact, the agency's own report shows that all development activities only impact seven percent of the entire ecoregion, yet mining is asked to pay the price with mineral withdrawals which are vastly disproportionate to its footprint.

The withdrawal ignores the role that mining companies take in actively managing the federal

lands on which they operate. During mine reclamation, mining companies frequently restore low-value habitats into prime potential sage-grouse habitat by eliminating invasive species and reducing risks of wildfires.

The withdrawal is contrary to DOI's "Multiple Use Mandate" under FLPMA. As articulated in BLM's 2006 Minerals and Energy Policy, under that mandate BLM's land use planning and multiple-use management decisions will recognize that, with few exceptions, mineral exploration and development can occur concurrently or sequentially with other resource uses and that the least restrictive stipulations that effectively accomplish the resource objectives or uses will be used.

Proposed Land Withdrawals – Utah

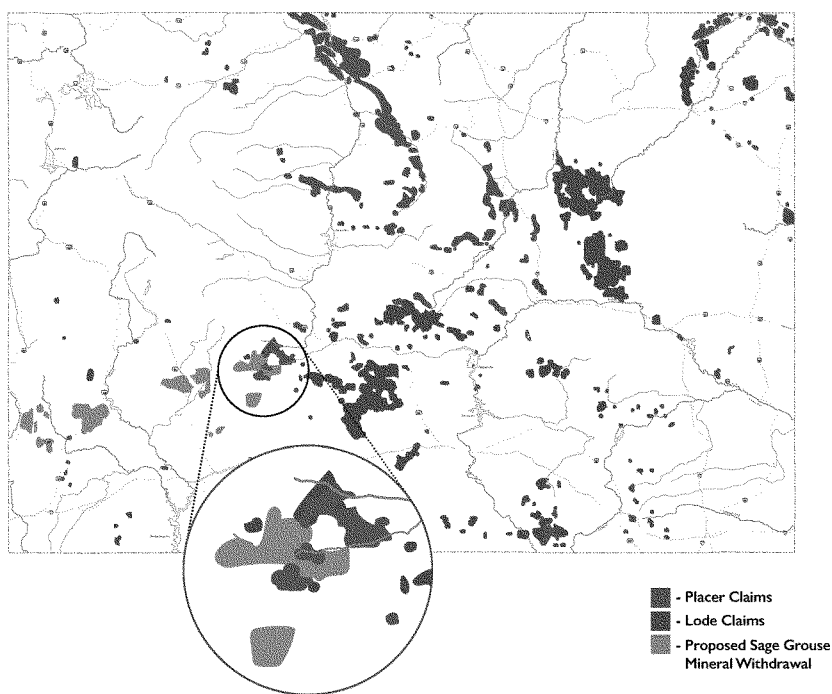
Withdrawal An Unauthorized DOI Power Grab

The areas to be withdrawn were identified without adequate opportunity for public comment and regardless, a withdrawal of this size is beyond the DOI's authority.

The 10 million acre withdrawal is premised on "sage grouse focal areas"—a land management scheme devised by the BLM after the public comment period for the land use management plan amendments had closed and the public has been denied an opportunity to comment on this critical element of the decision.

In FLPMA, Congress specifically acknowledged the importance of mining on federal lands and minerals' contribution to society. In fact, FLPMA requires Congressional approval if mining activities are to be curtailed by large-scale withdrawals. Specifically, mineral withdrawals of more than 5,000 acres are subject to Congressional approval which the DOI has not received.

"Congressional approval is required if mining activities are to be curtailed by large-scale withdrawals."

Proposed Land Withdrawals – Wyoming

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Senator BARRASSO. Well, thank you very much to each and every one of you. We are going to have some questions for members of the panel.

We will start with Senator Lee.

Senator LEE. Thank you very much, Mr. Chairman.

Thanks to all of you for being here. This is an important topic. It is an especially important topic to those of us from the Western United States who have to live with the consequences of this issue.

As I mentioned earlier, and as Ms. Clarke mentioned at length in her testimony, Utah has done an extraordinary job at managing these competing interests, at balancing the need to protect the sage grouse while at the same time maintaining an environment in which our economy can grow and where economic activity can occur in a responsible fashion.

I am worried though. I am worried that Utah's federal partners have been showing a pronounced propensity to ignore suggestions made by the state. When this happens trust between the state and its citizens on the one hand and the Federal Government and its agencies and its regulators on the other hand, tends to erode. When that trust tends to erode, it becomes far more difficult for us to achieve what we want to achieve; it becomes far more difficult for us to protect the bird; and, it becomes far more difficult for us to accomplish all the things, all the goals, the aspirations, that we have in common.

On May 29th, 2015, just over a year ago, the BLM and the Forest Service released their proposed land use plan amendments. Utah seized on this opportunity and submitted a substantial comment making many dozens of suggestions about how best to manage the sage grouse in Utah. Utahans know well how to deal with this, within our own state. After all, Utahans have to live with the consequences of any efforts in those areas.

In light of that, Mr. Lyons, I would like to ask you a question. Do you know how many of those suggestions, the suggestions that were submitted by the State of Utah, were adopted in the September 9th, 2015, final record of decision?

Mr. LYONS. Well, Senator, I think I'd make two points. One is I would have to go back and I would have to talk with the state officials and others with regard to the nature of the requests for changes in the plans and how they responded. And I would also point out that many changes were made in the plans in collaboration with the state before those final drafts were issued.

So I want to make clear that many issues were resolved before we got to that point. There may have been other issues that were raised in the consistency review which is what, I assume, you're referring to, but I'd have to check with staff to see what changes were made both before and subsequent to the consistency review.

Senator LEE. Okay.

[The information requested was not provided as of the date of printing.]

Senator LEE. I am going to ask Ms. Clarke, to get her perspective on this and on the point that you made in a moment.

My understanding is that your answer to that question could be very simple. It is zero, none, not one of them, not one of the suggestions made by the State of Utah submitted to the Federal Govern-

ment were followed, not a single one of them. This is incredibly frustrating.

I would like to think that my state has earned a seat at the table, not only because it is affected by this in a way that most states are not, but also because my state has spent upwards of \$50 million trying to figure out how to protect the sage grouse. That is a lot of money for a small, not terribly wealthy state in the Rocky Mountains. And they have spent this just studying the sage grouse and trying to get this right.

It is not as though we have just thrown that money out there just to spend it. It is not as though we have wasted it. These efforts have had a pretty good effect. The sage grouse population in Utah has, as I understand it, increased by over 50 percent just since 2013. To have every single one of Utah's land use plan suggestions categorically rejected and not incorporated makes your agencies appear aloof and unresponsive, unconcerned about the dynamic of the state/federal partnership.

The state/federal partnership, this is a dynamic that I am constantly told exists between federal land use managers on the one hand and state and local officials on the other hand. Yet curiously, at least within my own state, I hear that only from the federal officials. I never hear the state officers describe it that way because more often than a partnership it is much more of a dictatorial relationship.

So, Ms. Clarke, I would like to ask you had the BLM and had the Forest Service adopted at least some of Utah's land use amendment suggestions, what effect would those changes have made on the State of Utah and on the State of Utah's ability to protect the bird?

Ms. CLARKE. Utah's plan and our many recommendations to the Federal Government were based on a directive that we had as we adopted the plan and that was to make sure we were taking good care of the bird, conserve the bird, but also protect economic opportunity. That wasn't an easy balancing act, but we did a remarkable job with it.

One thing we did is identify 11 separate areas where we created individual plans focused on the local threat. We have used incredibly good science as we go through this. We think we could have held on to that balance and wouldn't have had to say no to many things had we been able to really have some of our recommendations accepted.

One other thing is had they been accepted Utah probably wouldn't be in litigation with the Federal Government over these plans right now.

Senator LEE. What became of those suggestions though while we are on that topic?

Ms. CLARKE. We had a lot of discussion with the Federal Government. They were available to talk. The frustration was we had a lot of talk and the Federal Government did what they wanted to do.

Senator LEE. Okay, thank you. I see my time is expired.

Senator BARRASSO. Thank you, Senator Lee.

Senator Heinrich.

Senator HEINRICH. Mr. Lyons, greater sage grouse populations have declined from historical highs that have been at times estimated to be as high as possibly 16 million birds to just a few hundred thousand. Irrespective of exact population levels, which clearly fluctuate with precipitation, in particular, this represents an enormous and very alarming decline.

In your opinion, based on the strength of the conservation included in the state plans alone, would the U.S. Fish and Wildlife Service have been able to arrive at its decision not to list the greater sage grouse as threatened? In other words, do the state plans alone offer the kind of durable and scientifically sound conservation requirements to achieve long-term population success and avoid listing?

Mr. LYONS. Well Senator, I don't know that I can speak for the Fish and Wildlife Service. So I will not attempt to——

Senator HEINRICH. Let me point out that you are the only Interior federal——

Mr. LYONS. Unfortunately I don't have to——

Senator HEINRICH. Yes.

Mr. LYONS. But I would say that, you know, the challenge we faced was building plans in collaboration with the states as we did and then providing both the flexibility necessary to respond to local conditions and recognize local initiatives, as Kathleen just spoke of, but at the same time provide sufficient consistency across the larger landscape such that the threats identified by the COT report which again, was authored by a team that included a dominant number of state officials, to address those in a way that provided sufficient consistency so that the Fish and Wildlife Service felt that those threats were adequately addressed. And I think that was the challenge that we faced.

Senator HEINRICH. Speaking of those threats, Mr. Lyons, if you listened to the opening comments from some of my colleagues, you could be left with the impression that the Department of the Interior has not taken seriously or addressed the deleterious impacts that fire has on mature sage brush.

Would you tell us a little bit about what exactly Department of the Interior is doing in that area?

Mr. LYONS. Well, I'd be glad to, Senator.

I think, as I indicated in my opening statement, we recognized early on the significant threat associated with range land fire. I think we recognized as well that past efforts had not adequately dealt with that threat.

And so, Secretary Jewell issued a Secretarial Order, 336, that directed us to develop a strategy for preventing, suppressing and restoring lands impacted by range land fire in short order. I think the Executive Order was issued in January. We had preliminary recommendations put together to deal with the pending fire season by March and a final plan for an integrated strategy put together in May. And in my 35 years in government I've never seen things move that quickly. So I was pleased to see that happen.

We used that then to initiate efforts, again, in collaboration with the states to secure more equipment, to be in position, people in areas where we knew there was a high fire risk.

We worked with the Western Association of Fish and Wildlife Agencies, WAFWA, which is basically the states' Fish and Game directors, to identify areas of high risk to fire as well as those of high resistance and resilience so we could better target our efforts.

We made a significant investment in working with the states in helping to train and provide resources for Range Land Fire Protection Associations. Idaho has those. Nevada has those. Oregon has a program, as does Nevada. And those individuals become, really, the first line of defense in dealing with range land fire. And I think it was a very successful effort. We also put money into training veteran crews and added a substantial number of veteran crews to the effort.

So, we took that threat seriously, and fortunately, we were able to limit losses last year. I think the Soda fire, though, was a reminder of how significant it is that we get prepared to deal with this threat.

Senator HEINRICH. I am quickly running out of time, so I want to get to one more question. Thanks for your answer, Mr. Lyons.

Ms. Macdonald, I wanted to ask a little bit about the sage grouse initiative that is led by NRCS. It has worked with ranchers, farmers and private landowners to voluntarily protect more than four million acres of sage grouse habitat.

Can you just talk a little bit about this on the ground, collaborative work and how it has achieved so much success?

Ms. MACDONALD. Absolutely, thank you for the opportunity, Senator Heinrich.

The Sage Grouse Initiative has been amazingly effective. It's done a great job of using science to inform its decision making and focus its resources. The Natural Resource Conservation Service does a great job working with private landowners, and we've been pleased to partner with them in the development of some of the science that's been used to target resources.

They move mighty quickly and they've also been able to really do things that not only benefit the bird, but also benefit the herd and I think that's part of what have made them so successful.

May I follow up just on a couple of other points you made? You know, in the State of Oregon our final request for changes in the Governor's Consistency Report were also, I think, not taken. But our governor, our governor and state, really felt like it was so important to get the consistency across the BLM plans that we were comfortable having a little difference between our plan and the BLM's plan. And we are pretty confident that we're going to be able to work a way to get those differences to be more consistent.

So, while I appreciate the frustration Senator Lee expressed, I think that there had been a lot of movement along the way to make changes. You can see that reflected in our plan and a lot of the other state plans where differences exist.

Thank you.

Senator BARRASSO. Thank you, Senator Heinrich.

Senator Daines.

Senator DAINES. Thank you, Mr. Chairman.

Montana is a state that has rich natural resources. We say that we are a state where we work but we also like to play. As Mon-

tanans, I think we understand that balance we need to have where we want to have a place we can develop our natural resources.

We can have a thriving agriculture business. At the same time, we want to make sure we protect our environment so we have a place to take our kids fishing and hunting and backpacking on the weekends. That is who we are as Montanans.

I am an avid outdoorsman. I love spending time outside when I am not here in Washington, DC. We found in Montana that balance, and we struck that with hard work and the encouragement of farmers, ranchers, folks in the energy industry, from conservationists to put together a state plan in terms of sage grouse conservation.

In Montana the sage grouse habitat is predominately occupied by private landowners, and 64 percent of the sage grouse habitat in Montana is in the hands of the private citizens.

In Montana we also have a checkerboard land management structure, typically by sections, square miles, a section of 40 acres. Federal tracts are oftentimes surrounded by state and private lands, and these federal requirements can have a significant impact on operations on the adjacent private or state lands.

I was disappointed, I must say, to see that the plan, put together by BLM, rather than complementing what was done with our state plans in Montana, there was conflict. I was disappointed to see the federal plans largely inconsistent with the state plans in some very important areas. Remember, the birds don't know the difference between a BLM section, a private section or a state section.

This is just another example of this long list of one-size-fits-none directives coming out of this town that do not take into account the unique nature of the states and their ability to provide home grown solutions. I am a firm believer that the folks closest to the lands ought to have the greatest voice in this process.

Mr. Lyons, after reading Governor Bullock's consistency review, and we have a democratic governor so this is very bipartisan issue back home and Governor Bullock's plan—he listened to input from Montanans. Could you explain why it appears that the voices of Montanans were not incorporated into the planning process?

Mr. LYONS. Well Senator, I would suggest that we did try to incorporate the views and concerns of the governor and others in Montana in developing the plan, and we will continue to do so through implementation.

I'd point out that the checkerboard ownership pattern that you described is an important element here. And for that reason we sought to build flexibility into the plans with regard to, in particular, how oil and gas resources were to be developed and reached an agreement with the governor's office in that regard. Montana is in a unique situation in that it is transitioning to adopting a strategy, known as the courier strategy, which is essentially what has been implemented in Wyoming.

So, we're working and we'll continue to work with the governor's office as that transition occurs, and I think that will provide additional flexibility for the state.

Senator DAINES. Yes, and in that regard, thank you.

I recognize, and to the credit of our state BLM office, they fought hard for clauses in Montana's RMP to ensure that flexibility you

talked about for the federal plans to be reviewed every two years and amended if and when the Montana state plan is proven to be “effective.”

I think the land users back home in Montana need more certainty that the BLM will indeed amend its land use plans to reflect the successes of local landowners in our state plan. We have been undertaking an active sage grouse conservation effort for over ten years. The irony here, of course, as you know, is the Montana plan is extremely similar to the Wyoming plan which was largely adopted by the BLM in Wyoming and not so in Montana.

So as I understand it, the BLM is undergoing its guidance documents to implement these plans. How does the Department plan to resolve these differences on federal land within these first two years?

Mr. LYONS. I believe what we’ll attempt to do is we’ll implement the plan as it’s written now and as the state develops its plan based on the courier strategy, we’ll review that plan and then amend the existing RMPs accordingly.

Senator DAINES. Specifically, does the Department plan to revise its plans in Montana in 2017?

Mr. LYONS. I think that’s a function of when the plans are presented by the State of Montana, and it’s a function of the construction of those plans. So, I can’t commit to something I haven’t seen nor has been delivered. So I think that’s why we built this transition in recognizing the desire to put in place this courier strategy which, I think, would work well for Montana.

Senator DAINES. A follow up on that.

They say that if you aim at nothing, you will hit it, in terms of clear objectives and targets.

Could you define what you mean by “effective” and what “meeting management objectives” means so that Montanans have a target to work with?

Mr. LYONS. Well effective means effective in sustaining the habitat; And the population of the greater sage grouse so as to ensure that it does not warrant listing in the future. I think that’s the objective across the range. It’s actually the objective that was created by the Western Association of Fish and Wildlife Agencies over a decade ago, and we’ve consistently focused on that as an objective in working with the states.

Senator DAINES. Right.

I am out of time. Thank you, Mr. Chairman.

Senator BARRASSO. Senator Risch.

Senator RISCH. Thank you very much.

Ms. Macdonald, let me say you were critical of language that is attempting to be passed at Congress that throws a bucket of cold water on the federal agencies that are involved in this.

Let me tell you, first of all, you represent, in my judgement, one of the most successful conservation organizations in America and one that has tremendous respect by myself and this Congress, really. And you do it because you work from the bottom/up and not the top/down.

With all due respect to the other gentlemen here, the Federal Government is notorious for doing things just the opposite. So I come back to the defense of those of us who are supportive of at-

tempting to handcuff these guys to a degree in dealing with this problem.

We really think the states are doing a good job. In this town, you cannot get people to understand this. The states actually can do these things. We actually can manage things. We can accomplish things and we do.

In our defense, we had to do this with wolves. Idaho had gotten rid of its wolves for a long, long time. None of us wanted wolves back. But the wolf, like the bird, is a magnificent animal. We have them now, even though we did not want them.

But we just couldn't. It was like the tar baby. We just could not get away from the Federal Government. So we finally passed a law and said, Federal Government, you are out of this business. We are going to do it, and we are still trying to get a handle on it. In Idaho and in a lot of places you can get five tags because we have still got to thin what we've got, but we have been successful in doing that.

I would not worry too much about this. I think we are going to keep a close angle on this and see that this bird is—gets to the point where it has a sustainable future in front of it. But we think the states can do it. If those that worship at the altar of the Federal Government, they will not like this, but we think at the state level we can probably do that.

But anyway, thank you for your consideration. We will just have to respectfully disagree on that particular point, but we have the same objective. There is not anybody that wants to see anything but the best for this bird.

Let me say that and just in closing on that. What that should represent, and it doesn't always, but what it should represent is just a depth of lack of confidence that we, who represent states here, have in some of the things that the Federal Government tries to do and this is certainly one of them.

To my friends from the Forest Service and the BLM, it should be loud and clear that the top/down approach just simply is not appreciated. We really think and you have heard other people say here that the bottom/up approach will work substantially better.

The other thing that I would stress, and my colleague from New Mexico, I think, stressed this, is look, let me tell you what this is all about when it comes to the sage grouse. Fire, fire and fire.

The human activities that are being used as an excuse to regulate, as was pointed out by Ms. Sweeney, I mean, how preposterous it is to throw ten million acres out because one percent of it is affected by mining. It is just stunning. It lacks common sense, but that is not new to this town.

Let me ask you, Mr. Lyons, we have not seen the grazing instruction memorandum. There was a story leaked from Greenwire that says there is such a thing. Can I get my hands on that?

Mr. LYONS. I'm sure you can, Senator.

Senator RISCH. I would like one, please. If you would get it to my office.

There are rumors that there is going to be a seven-inch stubble requirement in every lek. Do you know whether that is true or not?

Mr. LYONS. No, I don't believe there's going to be a seven-inch stubble requirement in every lek.

Senator RISCH. I think that would cause a lot of people to breathe a sigh of relief.

I don't know, this stubble thing has always amazed me and I suspect Brenda and others in the cattle business. This may come as a shock but cattle do not like the top part. They like the bottom part. Given their choice, they will take one all the way down because they have to eat the bad part to get to the good part, but unfortunately that is just the way it is. They do not do that to every plant, but depending upon how you measure the stubble it could be very difficult.

How about a buffer? We are hearing rumors about a six-mile buffer around a lek. Is that true or is that just rumor that we are hearing?

Mr. LYONS. I'm not aware of that.

Senator RISCH. Okay.

Mr. LYONS. Senator, so but I'll gladly follow up and——

Senator RISCH. I would appreciate that, if you could——

Mr. LYONS. If there's any truth to that.

Senator RISCH. If you take that for the record.

I have got in front of me this evening an email, although I am sure you wished you had never gotten it, that is dated April 26th from Chris Iverson. This is probably one of the emails you guys would have given to Hillary to guard.

In any event it has gotten out. Mr. Iverson, in talking very candidly about the approach that is being taken, talks about the requirements. He says, "Does anyone suppose that any," and any is in caps, so I suppose that means it is a shout. "Does anyone suppose that ANY allotment is currently meeting those standards?" Did you respond to that question that he asked you in this email or was this kind of a rhetorical email that you——

Mr. LYONS. I think it was a rhetorical question, Senator. And since we both have that email, you know, I would point out that subsequent to that Chris says that ultimately the range cons need to figure out how to meet those guidelines. So I would not necessarily agree with Chris that we can assume that people can't meet these objectives.

Stubble height is one element associated with a number of objectives for the plans. I want to point out for the record that no one variable, no one objective will be the determining factor as to whether or not someone is complying with the land health standards and further provide that it's not simply a matter of meeting those standards, but if an operator could demonstrate that their operation is, in fact, moving in that direction and we certainly will work with permittees to achieve that, then they will meet the standards.

I think there's been a lot of confusion about stubble height and a lot of consternation. For that reason, we've had a number of meetings with the cattle industry to try to discuss this and correctly characterize it.

Senator RISCH. We appreciate that.

Mr. LYONS. And we will continue to have those conversations.

I had the good fortune of meeting with Speaker Bedke just a few weeks ago to talk about this issue and some ways to try to work better together to try to address these concerns.

Senator RISCH. We appreciate that. There are 1,800 grazing permits in Southern Idaho. I do not need to tell you they are all very, very nervous right now. I hope, through this hearing, both of you will take all of this in the spirit in which it is intended. We all want to work together to make a sustainable future for this bird, and the criticisms that are levied here are done so in the spirit of moving it forward.

So thank you for what you do. We are going to continue to work with you and urge you in a direction that we think will be helpful.

Mr. Chairman, I have got to excuse myself, but thank you so much.

Senator BARRASSO. Thank you, Senator Risch.

Senator Hoeven.

Senator HOEVEN. Thank you, Mr. Chairman.

My questions are for Deputy Assistant Secretary Lyons as well, initially.

In 2010, Interior looked at starting a process to list the sage grouse as endangered. In September of 2015 U.S. Fish and Wildlife found that listing the greater sage grouse as an endangered species was not necessary. That primarily came as a result of the successful conservation efforts at the state and local level.

So my question is in regard to BLM's sage grouse plan. Last year North Dakota's Governor outlined six concerns about federal plan inconsistencies. He talked about not accounting for new well drilling technology for oil well drilling. He talked about balancing all the uses. He wanted a case by case analysis, and was concerned about BLM imposing net conservation gain requirements. He was concerned about the definition of "tall structures." What does that mean? What is that requirement? Then there was a concern about adequate public comment.

The state raised those concerns last year, and then in July 2015 BLM basically rejected or dismissed the concerns. The state appealed, and in September of 2015 North Dakota's appeal was turned down by BLM as well.

So when you talk about extensive state/federal collaboration and when we see that those state efforts are working, why is it the state was turned down when they came with those concerns?

Mr. LYONS. Well, Senator, the Dakota's plans, along with the Montana plan, were really designed to try to address those threats where identified.

I think in some instances, and I can't speak to the specifics of that letter of appeal, in some instances, the recommendations were not consistent with what was judged to be necessary to deal with those threats. And so, the plan moved forward.

I'd be glad to give you a more specific response, Senator, to those issues and go back and look at the letter and talk with Jamie Connell or the State Director about how that response was prepared.

Senator HOEVEN. Well, we work with Jamie and we really like her. We think she is great, so I am a little surprised that it was turned down.

What I am really after here is how we create a better collaboration in that, again, I think what you are hearing pretty consistently up here is that the states can do a good job but they need both In-

terior, just Fish and Wildlife, BLM, they need some flexibility here. It cannot be a one-size-fits-all. Multiple use in North Dakota is different than it is in some of the other states. I think all of us have ranching, but we also have tremendous energy development. There has got to be some flexibility. How do we get a better collaboration? How do we improve that collaboration? How do we get better flexibility?

We actually have a remarkably good relationship with Jamie. She is great. She is always looking for good ideas. She has always tried to help us do the things that we think are productive that makes sense, but she has got to be able to get that help from here in DC.

Mr. LYONS. Well, I appreciate that. I think Jamie is an outstanding director.

Senator HOEVEN. She is.

Mr. LYONS. And a leader in BLM.

I think the answer to this, and if I haven't made this clear, I want to emphasize that it is in implementation is how we work together at the ground level to implement these plans in ways that respond to local needs and provide the flexibility necessary to address issues whether it's buffers or as we're working now with the states in redrawing the boundaries of priority habitat areas that were originally identified which we're doing with a number of states.

I think there are and will continue to be important opportunities to work together in a collaborative way on the ground to make these plans work and achieve the conservation outcomes that we seek to achieve.

Senator HOEVEN. That is exactly what I am asking for. I am asking for more flexibility, and I am asking you to empower that Regional Director. I think we can do a lot if you do not have this mindset that it has got to be the same everywhere when it is not the same.

Mr. LYONS. The goal is not to be the same everywhere, Senator. The goal is to provide enough consistency so that there's certainty to the conservation outcomes that will be provided by the plans, but the flexibility to respond to those local needs and conditions.

Senator HOEVEN. That is the key. That is where we need your help.

Mr. LYONS. Glad to help.

Senator HOEVEN. We appreciate your Regional Director and her willingness to work with us, and we just need you to empower her to do some of these things that were on the ground.

I wanted to take just a minute to ask Brenda Richards a question from a rancher's perspective. Obviously, we think it is a great benefit to the country to be able to have ranchers out on the grasslands. But if you would just talk in terms of the benefits to the public because, I do not think people realize it, but there is a big time benefit to taxpayers and there are other benefits that our ranchers are creating for everybody by being out there in the grasslands and grazing. If you could just touch on that for a minute, because I think it is important that people understand it.

Ms. RICHARDS. Thank you, Senator, for that opportunity.

As I indicated in my testimony in many of these areas across the West, Idaho is not unique but ranching and grazing has been there for over 100 years which has helped provide the healthy habitat, the healthy range lands and the rural communities which is something we need to stress. So even if those ranches do change hands, many times, it's still into the same intricate aspect of the ranching community.

There is a vested interest in local input. Our local Sage Grouse Working Group which was started by the ranchers and then brought others in to work is over 20 years old. So it's well before all of this came to the very forefront.

And so, I think, you hit the nail right on the head. We are an extremely important and integral part for continuing with that because of the vast amount of public, private and state-owned lands so we all have to work together.

And the ranchers have a vested interest there. They are the businesses, they are the communities and they're long-term, generational often to make sure that that stability is there.

Senator HOEVEN. Hasn't your organization actually done some studies and determined what the benefit is to taxpayers on an annual basis? Do you have any of that information with you?

Ms. RICHARDS. We have done some, and Owyhee County actually has an economic impact statement. We also have an economic analysis that shows what it does. I would be glad to provide that to the Committee.

We've also pulled in some data through the National Public Lands Council based on the ranching and what the benefits are to the states, to the economic and the health of the resource. We do have that documentation and study done by the University of Wyoming and public lands sponsored it, and we will be glad to get that to the Committee.

Senator HOEVEN. Right.

I think some of those studies have shown on the order of \$750 million a year in benefit to taxpayers by having ranchers out on the ground. So you have got all this really good data there, and we appreciate you being here to talk about it.

Ms. RICHARDS. If I could follow up.

I would say that alone in Owyhee County we are 7,697 acres. We have 1.5 people per acre. Seventy-eight percent federal land. But we have put ourselves \$318,000 through into local working group projects that are successful. So, you're spot on with that, and we'd be glad to get that information to you.

Senator HOEVEN. Thanks, and we really appreciate what the ranchers are doing out there.

Ms. RICHARDS. Thank you.

Senator HOEVEN. Thank you, Mr. Chairman.

Senator BARRASSO. Thank you, Senator Hoeven.

Mr. Lyons, I understand this ten-million-acre withdrawal is going to be the largest in FLPMA history, and the Department has justified this figure by saying there does not appear to be significant mineral development potential.

Can you talk about whether your science or geological data informed that statement and is there a complete geological or mineral inventory of the ten-million acres?

Mr. LYONS. Well actually, Mr. Chairman, I think as you understand, you know, we're in the process of developing the withdrawal proposal. It's a separate process. So the plan has actually recommended the withdrawal, segregation occurred, but the process is unfolding.

So the mineral survey that would look at those particular issues is being developed for us by the USGS and is not yet completed. But we are and USGS did, in fact, reach out to all the states and to other entities to secure information about mineral potential and, I think, gather that as a foundation for developing the EIS which we hope to complete by the end of this year.

I should also point out that the alternatives for that EIS are being developed in collaboration with cooperators. There have been several discussions as well as several meetings both for the scoping and as well as associated with the withdrawal proposal.

So we will gather that information. We will share that information and that will be one of the components that goes into determining whether or not or how this withdrawal should move forward.

Senator BARRASSO. We are trying to get this all figured out, because Ms. Sweeney's organization has expressed concern about the withdrawal because BLM has yet to complete a number of mineral examinations under the 1994—you are talking how many years ago that was, congressional moratorium on, with regard to mineral patents. How does the BLM intend to complete, it looks like 6,000 mineral examinations triggered by this potential withdrawal in the face of such a significant backlog?

Then Ms. Sweeney, I am going to ask you to weigh in as well.

Mr. LYONS. Well, I can say, Mr. Chairman, that the mineral potential report is to be completed shortly by USGS. I can't speak to the particulars of the other analyses that you're talking about, unfortunately.

And we'll use that as one of the components that goes into preparing the environmental impact statement. That will be a part of this process. It is a separate process from the plans.

Senator BARRASSO. Ms. Sweeney, go ahead.

Ms. SWEENEY. I do think that there are significant concerns as to whether BLM has the resources to complete that number of mineral exams. I believe that between Forest Service and BLM there is probably less than 40 mineral examiners that are certified and able to do that kind of work.

And I would say, most of them are probably close to, if not of, retirement age. I do think that delaying getting the claims—determinations done since 1994. And there's still about 37 or 38 of those left, I think, that remain. I mean, it does raise the issue as to whether or not, that practically speaking BLM could even implement the claim validities that would be prompted by the withdrawal.

Senator BARRASSO. One of the other things you talked about in your testimony, Ms. Sweeney, had to do with how you clearly spell out the economic impacts that can result from withdrawing ten million acres from mineral production.

In your view, did the Administration take these economic issues, foreign policy implications and national security implications into consideration when determining that ten-million-acre figure?

Ms. SWEENEY. I would say they did not or else they wouldn't have moved forward with recommending it. But as Mr. Lyons says, it's still in the preliminary stages.

And so we're hopeful with that kind of information provided to the agencies that they will realize that this withdrawal is not necessary to conserve the sage grouse or its habitat.

Senator BARRASSO. Ms. Clarke, in your experience on both sides of the table in this discussion, you are currently overseeing a number of conservation efforts in Utah.

In your testimony you contrasted the successful conservation efforts on the ground in Utah with the now lack of what is happening in Washington. You referred to the mother ship.

I am going to ask Ms. Richards to weigh in on this as well, but has your relationship with local land managers, including those in BLM and Forest Service on the ground at home, been compromised by Washington's top/down mother ship approach to local conservation efforts?

Ms. CLARKE. I would say that our forward movement has absolutely been compromised. Often we hear from these federal partners that they share our frustration. They want to get on with business and make things happen. But yes, it's very frustrating.

Senator BARRASSO. Ms. Richards, could you comment as well?

Ms. RICHARDS. Yes, I appreciate that opportunity.

Both again from our local level and on our state level our governor put together a task force. We have a plan that was bought off on by the state BLM and local BLM. We were working on local working groups, and that has seemed to somewhat grind to a halt.

I'd also like to add that although the question was not answered specifically pertaining to a six-mile buffer, for our county commissioners we were denied access to a gravel pit by the BLM because it was within a four-mile buffer of sage grouse pertaining to the documents, the implementation draft documents that had been leaked because on the ground is not sure of how to move forward. And as we know litigation is huge out there so they don't want to take any risks.

So they're definitely, our local was/is and state has been trying to work with it, but we have been, as Kathleen said, ground to a halt somewhat by that.

Senator BARRASSO. Yes, because as a rancher in Idaho you have seen a number of federal resource management failures throughout your career, your time.

By their own admission the Administration understands that, "the primary threats to sage grouse are the widespread present and potential impacts of wildfire." Senator Risch commented on that. "The loss of our native habitat to invasive species and the conifer encroachment."

Since the agency has announced the federal conservation plans, have you seen any improvement or changes at all in the way that they are managing wildfire or invasive species? What have you noticed?

Ms. RICHARDS. In my area in Owyhee County, as was indicated, we were impacted tremendously by the Soda fire. So there have been a number of dollars that have been put forward to fire rehab, but that fire could have been prevented if there was flexibility within the plans for some grazing management as tools on the front.

So I'm not sure, and maybe I need you to repeat that. We haven't seen anything that's actually come on the ground with that, but maybe you could repeat what you're asking.

Senator BARRASSO. I think you answered it in terms of whether, there have actually been policy changes once they have recognized the impact of what the real causes are and what they are trying to do to prevent the real causes opposed to the man-made relationships.

Ms. RICHARDS. From what we've seen and the concern in the grazing community is again, we have had on a local level, because of the draft that was leaked out, we have had some conversations that have been very negative about restrictions that could be put on grazing which again, is counterproductive to the fire component of that, the threat, because grazing is a natural use of a renewable resource to reduce fuel loads. It will not completely eliminate fire, but it certainly is a tool that helps substantially reduce the fuel loads and protect those lands in the sage grouse habitat.

Senator BARRASSO. Thank you.

Mr. Lyons, in your testimony you highlighted the years of work that the Administration has undertaken on the issue of sage grouse conservation, an extensive period of time. I think your point is that the resource management plans and land use plan amendments announced last fall were an accumulation of years of work. If that is true, then why have we had to wait nearly another whole year for agency guidance if you have been working on this issue for more than a decade?

Mr. LYONS. Well Senator, I would suggest to you that the reason there's been delays is because we've made the extra effort to try to communicate with and coordinate with the various interests who might be affected by these plans.

I would have to say, my father would say, "You're in a damned if you do and damned if you don't situation." You know, draft IMs were prepared. We began to discuss those with cooperators and others and concerns were raised. We then elected to go out and engage more directly with various interests.

So I reference the stakeholder meetings we had in April in which we used those not only for discussion but as, kind of, mini workshops in which we presented the drafts at that point in time. And there were additional concerns, and then the feedback was extremely helpful.

We've continued the dialogue through the Sage Grouse Task Force with the states and a number of states have been quite helpful. Wyoming would be one, for example, with their experience in providing additional guidance. So we're trying to get it right. We recognize how significant this is.

We recognize how critical the collaboration is to be successful as we move forward and so the delays really, I think, reflect due diligence, perhaps maybe an over cautious approach to try and ensure

that we can continue to move forward and implement these policies and procedures in ways that are going to be understood, that are going to be effective and will be welcomed by the partners who are critical to ensuring that we can achieve that.

If I could make one other point, just about fire?

You might have sensed that I'm very proud of the work that we've done on fire, and I think it's important. And I, you know, the Soda fire was unfortunate and I certainly feel for Brenda and her family and the impacts that they felt.

But you know, we're trying to use the Soda fire as a mechanism to try new approaches to dealing with restoration, in particular. And one of those, in fact, is trying to use grazing more effectively as a mechanism to reduce fuel loads. Brenda and her family have been very helpful in that regard in trying to develop this.

So we're trying to learn from past mistakes and try to use these opportunities, a funny way to characterize the Soda fire, but this opportunity to do a more effective job in the restoration arena and also do that in a way that's going to further reduce the likelihood of fire risk in the future.

Senator BARRASSO. For your first answer let me just say that for your efforts with regard to coordination of efforts, I would appreciate if you do just not the states alone, but also the stakeholders. I think it is critically important to this.

Now I want to thank all the witnesses for being here, for your time and for your testimony. It is clear that serious concerns remain. They remain about the future of public land access as a result of the federal sage grouse plans. At best, federal sage grouse plans were created to justify keeping the species off the Endangered Species list but at worst the plans really are a part of a larger campaign to restrict access to public land.

It has been suggested that the agencies will use the Greater Sage Grouse Conservation Plan process as a model for future conservation efforts. This nine-month delay in implementation of the plan is not acceptable now, and it will not be acceptable in the future.

If there are no further questions from members, they may submit written questions to you so the hearing record will be open for the next two weeks.

Senator BARRASSO. Given that, the hearing is adjourned. Thank you very much.

[Whereupon, at 4:21 p.m. the hearing was adjourned.]

APPENDIX MATERIAL SUBMITTED



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

NOV 14 2016

The Honorable John Barrasso
Chairman, Subcommittee on Public Lands,
Forests and Mining
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Chairman Barrasso:

Enclosed are responses prepared by the Department of the Interior to questions received following the appearance of Jim Lyons, Deputy Assistant Secretary for Land and Minerals Management, before your subcommittee on June 28, 2016.

Thank you for providing the Department the opportunity to respond to these questions.

Sincerely,

Legislative Counsel
Office of Congressional
and Legislative Affairs

Enclosure

cc: The Honorable Ron Wyden
Ranking Member

**Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests and Mining
June 28, 2016 Hearing on Sage Grouse Conservation Issues**

Questions from Chairman Murkowski

Question 1: I understand this 10-million-acre withdrawal would be the largest in FLPMA history. The Department has justified this figure by saying there does not appear to be significant mineral development potential.

> What science or geological data informed that statement, and is there a complete geological and mineral inventory of the 10 million acres?

Response: The Bureau of Land Management (BLM) bases its statements on the most current available data. The lands proposed for withdrawal are spread across 6 states and include large irregular and noncontiguous tracts. Geologic data for these tracts exists in multiple scientific reports completed by government agencies, both federal and state, as well as academic institutions. At the onset of the process of analyzing the withdrawal proposal, no complete mineral inventory of these lands existed, but the United States Geological Survey (USGS) has recently completed a mineral potential report. BLM believes that this report is the first complete mineral assessment for these tracts.

> Which agency conducted that mineral inventory?

Response: The USGS has recently completed a mineral potential report to inform the process of analyzing the withdrawal proposal pursuant to Section 204 of Federal Land Policy Management Act (FLPMA). Initial information from the mineral assessment was released on August 19, 2016 and USGS' final report was completed in October 2016.

Question 2: How does the BLM intend to complete the nearly 6000 mineral examinations triggered by this withdrawal in the face of such a significant backlog?

Response: A mineral examination to determine the validity of a mining claim is required only before authorizing new mining operations on a mining claim situated in an area of public lands withdrawn from location and entry under the mining laws (43 CFR 3809.100). Mineral examinations are not required for mining claims for which no operations are proposed. It is the BLM's experience that operations are proposed only for a small fraction of all mining claims.

Question 3: What are the agencies doing to engage stakeholders and state representatives prior to finalization of any guidance documents?

Response: The BLM has engaged in an extensive outreach effort to ensure that implementation guidance and practices take into account state, local and tribal expertise and input. As part of this effort, each of the Greater sage-grouse (GRSG) state BLM offices convened outreach meetings with elected officials, stakeholders, and the public during April 2016 to discuss the plans and their implementation to get feedback and advice moving forward. Some further examples of our continued collaboration include:

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- 1) The Sage Grouse Task Force (SGTF) – composed of representatives of the Secretary’s Office in the Department of the Interior, the federal agencies that collaborated in the development of the GRSG conservation strategy, and the governors’ offices in each of the states affected by the GRSG land use plans -- agreed unanimously in January to extend its charter to inform plan implementation and any related concerns. Additionally, BLM State Directors met with their respective members of the SGTF in late March and April 2016 and again in August 2016 to discuss and to receive comments regarding draft guidance for implementation of key aspects of the BLM land use plans.
- 2) Ongoing stakeholder, partner, and employee training and outreach will occur and will be announced on the appropriate BLM State Office or National website.
- 3) Through the SGTF, the states and federal partners have been working since January, 2016 to define the key principles associated with effective mitigation and develop an approach to implementing the mitigation provisions of the BLM and Forest Service land use plans.

Question 4: Mitigation is a significant part of both the BLM and Forest Service’s plans. How does the BLM intend to measure the concept of “net conservation gain” in mitigation? Are there specific benchmarks and if so, who developed those benchmarks?

Response: Through the SGTF, the states and federal partners are working to define the key principles associated with effective mitigation, including how to implement the “net conservation gain” concept described in the GRSG land use plans. Presently, we have agreed that, consistent with applicable law, mitigation should consist of efforts to avoid, minimize, and compensate for adverse impacts that a project or management action may have on GRSG and its habitat. This approach is consistent with both the Presidential Memorandum and Departmental guidance on mitigation. In general, we expect that current habitat conditions (prior to disturbance) will provide a benchmark or baseline for evaluating project impacts, and will help to inform our identification of appropriate compensatory mitigation. The baseline habitat condition will be determined on a site by site basis once a project site has been identified. This will be the case for both credits and debits, so that the impact of the project can be demonstrated.

Question 5: In your testimony, you highlighted the years of work the Administration has undertaken on the issue of sage grouse conservation. I think your point is that the Resource Management Plans and Land Use Plan Amendments announced last fall were a culmination of years of work.

- **If that is true, why then have we waited nearly another whole year for agency guidance if you’ve been working on this issue for more than a decade?**

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Response: Guidance documents could not be prepared until the Records of Decision (RODs) had been finalized. Drafting of guidance began in early October 2015, less than a month after the RODs were signed, and included extensive field review and federal agency review. In response to concerns we heard from states and other stakeholders, and as part of our commitment to engage with and respond to concerns raised by these stakeholders, we incorporated additional, unprecedented review by SGTF members and provided workshops for stakeholders to help explain the purpose of the new guidance and how the guidance might or might not affect workflow within a BLM field, district, or state office. BLM used the input received to refine the policies to ensure a consistent management approach across the range while providing for flexibility to address local circumstances and concerns. BLM issued the guidance on September 1, 2016.

Question 6: One of the focal points of the conversation surrounding the sage grouse conservation plans is the 10-million-acre mineral withdrawal. Under FLPMA, such a withdrawal, or any action that precludes a specific land use, requires proper Congressional notification of both the Senate and House of Representatives. Has such a notice been issued?

Response: Consistent with Section 202(e)(2) of FLPMA, the BLM is currently preparing a notice and report for the Senate and House. In addition, under section 204(c)(1) of FLPMA, the Department will formally notify both the Senate and the House of Representatives of any withdrawal aggregating more than 5,000 acres no later than its effective date.

Question 7: What was the process for review and consideration of the state plan consistency reviews of BLM's plans?

Response: The Governor's Consistency Review is an important part of the BLM land use planning process. Each of the affected states was actively and formally involved throughout the agencies' land use planning process. Following the completion of the NEPA process and the preparation of BLM's proposed land use plans at the end of May 2015, BLM initiated the formal consistency review process required by its regulations, including by identifying in the final environmental impact statements any known inconsistencies with state or local plans, policies or programs. Following the 60-day review period provided for in the regulations, by July 29, 2015, the Governors of Utah, Wyoming, Oregon, Idaho, Montana, Nevada, Colorado, South Dakota, and North Dakota each provided BLM with a consistency review letter; California concurred with consistency and did not submit a letter.

The Governors' consistency review letters asserted inconsistencies between the BLM's proposed plans and their States' resource-related plans, policies, and programs or those of local governments, as well as other concerns that the Governors had with the proposed plans. BLM staff and leadership at the local, state, and national levels considered the asserted inconsistencies and recommendations submitted by the Governors, as well as

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their additional concerns. The Governors' submissions were assessed in the context of the purposes, policies and programs of federal laws and regulations applicable to public lands, as required by FLPMA and BLM regulations.

On August 6, 2015, the BLM State Directors provided responses to the Governors' consistency review letters. The State Directors' responses addressed which of the Governors' recommendations had been accepted and the agencies' reasoning for rejecting the remaining recommendations. These Governors were then given 30 days to appeal the BLM State Directors' decisions to the BLM Director. By September 11, 2015, the BLM Director had received appeals from the Governors of Utah, Idaho, Nevada, North Dakota, and South Dakota. The BLM Director reviewed these appeals before approving the RODs, and prepared detailed responses that were transmitted to the Governors and published in the Federal Register after the RODs were issued. In some instances, modifications to the plans were made based on recommendations submitted to the BLM by the Governors. These modifications are summarized in the RODs, as well as in the BLM Director's response letters.

Question 8: By state, what percentage would you estimate recommendations of each of the consistency reviews are reflected in the management plans and amendments?

Response: The Governor's Consistency Review is an important part of the BLM land use planning process. Nine Governors submitted review letters during this process, while the Governor of California found the plan to be consistent. The BLM reviewed the concerns and issues raised by the Governors, as described in the previous answer. In many cases, BLM resolved the Governors' concerns through factual responses and clarifications, as described in the State and National Directors' response letters, without the need for any changes to the land use plans. In addition, certain issues raised by the Governors were found by the BLM not to identify an inconsistency, and were therefore outside the scope of the consistency review process. Because many recommendations were addressed without any changes, it is not possible to estimate quantitatively which percentage of recommendations are reflected in the plans. The entirety of the reviews and responses can be found at:

http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html.

Question 9: In your testimony you state that the BLM plans are "the product of extensive coordination and engagement among federal agencies, states, and other partners and stakeholders." Do you believe that means the state's views are reflected in the plans? If so how?

Response: States have been key partners in the development of the BLM and USDA Forest Service (USFS) land use plans and plan amendments since 2011. The plans build upon the foundation for GRSG conservation initiated by a number of states, including Wyoming's and Montana's core area strategy, Idaho's three-tiered conservation approach, Nevada's Conservation Credit System, and Oregon's "all lands, all threats" approach. In 2011, then-Secretary of the Interior Salazar and Governors Mead and

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Hickenlooper formed the SGTF. This federal-state working group has met regularly to discuss key aspects of GRSG conservation, to compare approaches employed by state and federal partners, and to collaborate in developing a comprehensive conservation approach. The plans also reflect comments received throughout the planning process by cooperating agencies, including state agencies.

The plans include some common elements that were required across the range to address threats identified in the peer-reviewed Conservation Objectives Team (COT) Report, which was developed by a team of state and federal wildlife biologists.

Question 10: Why did you completely reject five –50 percent -- of the 10 state plan consistency reviews? Please be specific in explaining your rejection of each state's comment. Also, does the agency believe coordination and engagement mean communication with stakeholders but not necessarily agreement or consensus?

Response: During the development of the land use plans, the BLM worked closely with and incorporated significant portions of the state plans and programs. The BLM subsequently gave careful consideration to the states' consistency review and appeal letters. As required by FLPMA and the BLM's planning regulations, the BLM accepted the states' recommendations to the extent that those recommendations responded to an inconsistency with state and local resource related plans, and that the recommendations were consistent with the purposes, policies, and programs of federal laws and regulations. Among the purposes, policies, and programs considered by BLM were the BLM's Special Status Species manual and the purpose and need for the planning effort. As described above, many of the recommendations included in the states' consistency reviews did not satisfy these criteria, or else could be resolved without substantive changes to the land use plans. The BLM's rationale for accepting or rejecting each of the recommendations is explained in the BLM State and National Directors' response letters, which are available at http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html.

Question 11: Given the years of successful state and federal collaboration outlined in your testimony, and the fact that data shows the population of sage grouse has been stable for the last decade -- in fact, there has been an increase in leks in recent years -- what specifically led to the agency's decision to modify the land management plans to include mandatory regulatory mechanisms?

Response: The GRSG conservation measures included in the BLM and Forest Service land use plans were necessary in order to adequately address the findings in the FWS' 2010 ESA "warranted but precluded" listing decision, including that a lack of regulatory mechanisms was a threat to the species' survival. The plans provide the regulatory mechanisms necessary to protect GRSG from land use-related threats on more than half of the species' occupied range.

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Question 12: In your testimony you indicate the plans will require mitigation that provides a net conservation gain to the species. You also indicate that the plans call for monitoring and evaluation of various criteria so voluntary and required conservation actions can be assessed. How is net conservation gain going to be measured? What are the benchmarks, and are they in place now? And, are the processes for assessment of conservation actions in place?

Response: Through a work group of the SGTF, the states and federal partners are working to define the key principles associated with effective mitigation, to define key concepts such as baseline condition and additionality, and to determine what parameters should apply to evaluating how net conservation benefit is achieved. Presently, we have agreed that, consistent with applicable law, mitigation should consist of efforts to avoid, minimize, and compensate for adverse impacts that a project or management action may have on GRSG and its habitat. This approach is consistent with both the Presidential Memorandum and Departmental guidance on mitigation. In general, we expect that current habitat conditions (prior to disturbance) will provide a benchmark or baseline for evaluating project impacts, and will help to inform our identification of appropriate compensatory mitigation. The baseline habitat condition will be determined on a site by site basis once a project site has been identified. This will be the case for both credits and debits, so that the impact of the project can be demonstrated.

Question 13: The Administration has touted predictability as a benefit of its recent policy on mitigation pursuant to the Presidential Memorandum: Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment. How do you reconcile the predictability as argued by the Administration, and your written statement on page 6, in which you argue that pre-determined benchmarks will be developed to ensure the agency's ability to immediately respond to and correct identified declines in population? How will the ability to change course translate to predictability for industry and project proponents?

Response: The adaptive management strategies associated with each of the GRSG land use plans and amendments outline both Greater sage-grouse population and habitat soft and hard triggers. Working with the individual states, annual habitat and population data will be analyzed to determine when and if a trigger (benchmark) is met. In addition to highlighting these triggers, the BLM also identified what management responses the agency would take should a trigger be hit. Because these land use plan responses are identified in the land use plans and amendments, project proponents will have greater understanding of which changes in habitat and population will trigger management actions and what those management actions will be, as they are already prescribed in the land use plans and amendments.

Question 14: In your oral testimony, you told Senator Daines that the agency objective is to ensure the sage grouse populations do not warrant (Endangered Species) listing in the future, and that "effective" management means sustaining

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habitat and population of sage grouse. If sustainment rather than growth of habitat and population is effective, why is it necessary to seek a “net conservation gain?” Under what legal authority is the Bureau of Land Management permitted to seek a “net conservation gain?” And, how do you define “net conservation gain” as you discuss on page 6 of your written statement?

Response: FLPMA provides the BLM with broad discretion to manage the public lands under principles of multiple use and sustained yield. As part of the definition of multiple use and sustained yield, FLPMA also requires the BLM to avoid “permanent impairment of the productivity of the land and the quality of the environment” and to “achieve[] and maint[ain] in perpetuity ... a high-level annual or regular periodic output of the various renewable resources of the public lands,” which include wildlife habitat. The broad discretion and stewardship mandate afforded to the BLM in managing the public lands under these principles is reflected in its land use plans.

The BLM exercised this broad discretion in its GRSG planning process by seeking to conserve, enhance, and restore GRSG habitat, including by achieving a net conservation gain. This planning-level direction complies with the BLM’s policy for special status species, which calls for “special management consideration to promote . . . conservation and reduce the likelihood and need for future listing under the ESA” and for practices that “*improve* the condition of the species’ habitat on BLM-administered lands.” Seeking a net gain to GRSG is fully consistent with FLPMA’s guiding principles. In addition, pursuing a policy of net conservation gain represents a risk management approach that provides additional, upfront predictability to both the project proponent and the BLM against the potential for future listing of the species.

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Questions from Sen. Barrasso

Question 1: Given that mitigation is a significant part of the restoration activities proposed in the federal plans, how does the BLM intend to measure the concept of “net conservation gain” as a result of mitigation? Are there specific quality or quantity benchmarks that will be required, and if so, who developed those benchmarks?

Response: Through a work group of the SGTF, the states and federal partners are working to define the key principles associated with effective mitigation, to define key concepts such as baseline condition and additionality, and to determine what parameters should apply to evaluating how net conservation benefit is achieved. Presently, we have agreed that, consistent with applicable law, mitigation should consist of efforts to avoid, minimize, and compensate for adverse impacts that a project or management action may have on GRSG and its habitat. This approach is consistent with both the Presidential Memorandum and Departmental guidance on mitigation. In general, we expect that current habitat conditions (prior to disturbance) will provide a benchmark or baseline for evaluating project impacts, and will help to inform our identification of appropriate compensatory mitigation. The baseline habitat condition will be determined on a site by site basis once a project site has been identified. This will be the case for both credits and debits, so that the impact of the project can be demonstrated.

Question 2: What specific components of the BLM Resource Management Plans will be enacted to reduce cheatgrass prevalence to decrease fire threat and address other ecosystem imbalance issues?

Response: The Great Basin has the greatest risk of habitat fragmentation from wildfire and conversion to cheatgrass. The BLM has developed and is implementing an integrated vegetation management approach to accomplish the commitments in the BLM GRSG RMPs. The BLM has completed an assessment of approximately 41 million acres in the Great Basin using the science-based Fire and Invasive Assessment Tool (FIAT), which identified the need to treat over 13 million acres to address the threats from wildfire, cheatgrass, and conifer encroachment. The BLM has prioritized the 86 Project Planning Areas identified by FIAT and has been directing increased fuels and GRSG funding to accomplish fuel reduction and habitat restoration to the Great Basin. The BLM is developing a similar tool and will conduct a similar inventory for the Rocky Mountain Greater Sage-Grouse areas. The BLM is also working with the Agricultural Resource Service (ARS) and Environmental Protection Agency (EPA) to register additional biopesticides that could help control the spread of cheatgrass, reduce the concurrent risk of rangeland fire, and assist in making the sagebrush ecosystem more resilient.

Question 3: Mr. Lyons, given that the 10-million-acre withdrawal is currently only segregated, and not actually withdrawn from production/use potential, how is the

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agency able to preclude or stall permitting activities on lands that may or may not ultimately be included in a mining-use withdrawal?

Response: Upon publication of the notice of proposed withdrawal, the lands were segregated from location and entry under the Mining Law for two years, unless the Secretary either rejects the withdrawal application or withdraws the lands before the end of two years. The BLM has the discretion under its regulations to conduct a mineral validity examination before approving a plan of operations or allowing notice-level operations to proceed on segregated lands. BLM has no authority to approve a plan of operations or allow notice-level operations on a mining claim on segregated lands that is determined to be invalid.

In the event that the Secretary does not withdraw some or all of the lands proposed for withdrawal, such lands will be open to location and entry of new mining claims under the Mining Law.

Question 4: When does the agency intend to notice the mining withdrawal?

Response: On September 24, 2015, the Department published the Notice of Proposed Withdrawal; Sagebrush Focal Areas; Idaho, Montana, Nevada, Oregon, Utah, and Wyoming and Notice of Intent to Prepare an Environmental Impact Statement (Notice), (80 FR 57635). This Notice, which initiated the process of analyzing the withdrawal proposal as specified in section 204 of FLPMA, informed the public of the proposed action and described the federal lands proposed for withdrawal. Publication of the Notice initiated a 90-day public comment and scoping period and segregated the lands proposed for withdrawal for up to two years while the application is processed, subject to valid existing rights. The public comment period was extended on November 13, 2015 (80 FR 70252). Eight public meetings were held across the six-state area in December 2015.

Public notice will also be provided when the draft environmental impact statement is ready for review, which we anticipate will take place later this calendar year when the subsequent final environmental impact statement is available. If the Secretary decides to approve the withdrawal, a public land order describing the lands subject to the withdrawal will be published in the Federal Register.

Question 5: During the hearing it became apparent that many stakeholder groups feel they have been left out of the process during the development of instructional memoranda and agency guidance documents. Why do you feel stakeholder input is inappropriate during this stage of the process and what, if anything, does the BLM plan to do to engage stakeholders prior to the finalization of field guides or instructional memoranda?

Response: The BLM has engaged in an extensive outreach effort to ensure that implementation guidance and practices take into account state, local and tribal expertise and input. As part of this effort, each of the GRSG state BLM offices convened outreach

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meetings with elected officials, stakeholders, and the public during April 2016 to discuss the plans and their implementation to get feedback and advice moving forward. Some further examples of our continued collaboration include:

- 1) The SGTF – composed of representatives of the Secretary’s office in the Department of the Interior, the federal agencies that collaborated in the development of the sage grouse conservation strategy, and the governors’ offices in each of the states affected by the GRSG land use plans -- agreed unanimously in January to extend its charter to inform plan implementation and any related concerns. Additionally, BLM State Directors met with their respective members of the SGTF in late March and April 2016 and again in August 2016 to discuss and to receive comments regarding draft guidance for implementation of key aspects of the BLM land use plans.
- 2) Ongoing stakeholder, partner, and employee training and outreach will occur and will be announced on the appropriate BLM State Office or National website.
- 3) Through the SGTF, the states and federal partners have been working since January, 2016 to define the key principles associated with effective mitigation and develop an approach to implementing the mitigation provisions of the BLM and Forest Service land use plans.

Question 6: From the Department’s perspective, what is the status of the Greater Sage Grouse population (e.g., location, population size, density) across the West at this time?

Response: The Department relies on the state wildlife agencies for annually produced population trend related information, which is typically available in early fall of each year. At the time of the hearing, this year’s data has not yet been provided. It should be noted that according to long term studies, GRSG populations are cyclical in nature. Therefore, population levels at one point in time, and short term trends, may not adequately reflect the status of GRSG populations overall. The BLM continues to work with the state fish and wildlife agencies and the Western Association of Fish and Wildlife Agencies (WAFWA) to assess GRSG population trends overall.

Question 7: Please provide for the record a copy of any instructional memoranda, field guide, guidance document, or any other media currently under development that will affect implementation of the Department of the Interior’s sage grouse conservation efforts.

Response: Attached are the Instructional Memoranda (IMs) issued on September 1, 2016, following extensive review and comment by the states:

- 1) Setting Priorities for and Processing Grazing Authorizations in Greater Sage-Grouse Habitat

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- 2) Incorporating Thresholds and Responses into Grazing Permits/Leases
- 3) Policy for Resource Management Plan Effectiveness Monitoring of Renewable Resources with additional guidance for plans implementing the Greater Sage-Grouse Conservation Strategy
- 4) Greater Sage-Grouse Habitat Assessment Framework Policy
- 5) Instruction Memorandum for the Implementation of the Greater Sage-Grouse Adaptive Management
- 6) Implementation of Greater Sage-Grouse Resource Management Plan Revisions or Amendments - Oil & Gas Leasing and Development Sequential Prioritization
- 7) Tracking and Reporting Surface Disturbance and Reclamation

Work will continue through each BLM state office to help inform the states and counties, stakeholders, and the public of these IMs and to answer any questions regarding their implementation.

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Question from Sen. Wyden

Question 1: Over the last four months, the Bureau of Land Management has held a series of public outreach meetings on implementation of the sage grouse conservation plans. What has been the response at these meetings from stakeholders to the plans?

Response: To explain plan commitments and get input on next steps for implementation – with a specific focus on areas where stakeholders may see changes on the ground – the BLM hosted a series of external stakeholder workshops in each of BLM’s Greater sage-grouse states in April 2016. Approximately 400 partners attended the workshops held in Montana/Dakotas, Wyoming, Colorado, Utah, Idaho, Nevada/California, and Oregon.

Participants provided valuable input, which the BLM is using to inform policy for implementing the plans on the ground. In particular, stakeholders across the range emphasized that the BLM must achieve range-wide consistency of data collection, processes, and coordination, along with local flexibility to adapt to specific and unique situations on the ground. The BLM is committed to achieving this balance between consistency and flexibility through an all-lands approach and continued collaboration with our many partners. We will continue working with partners to implement the plans and adapt to changing conditions so that together we can protect the Greater Sage-Grouse and the sagebrush steppe environment.

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Questions from Sen. Risch

Question 1: I haven't seen the Grazing Instruction Memorandum, yet there was a Greenwire story from April 20, 2016 that mentions a leaked grazing memo. Can you send the Grazing Instruction Memorandum to my office?

Response: As requested during the hearing, the BLM has provided a copy of the draft instruction memorandum (IM) to your office. The Grazing IM referred to in the Greenwire story was a draft version being used to engage extensive internal and external coordination and consultation. The Grazing IM was recently finalized and released. Copies of all of the IMs released on September 1 are attached to this document.

Question 2: Will there be a seven inch stubble requirement in every lek buffer zone?

Response: No. The Habitat Objectives table in each of the land use plans summarizes the characteristics that research has found represent the general seasonal habitat needs for Greater sage-grouse and provides the broad vegetative conditions we strive to obtain consistent with the ecological site potential of the rangeland area under review. No single habitat indicator defines whether habitat objectives are met or not met.

Question 3: Will there be a 3.1 mile buffer zone around every lek?

Response: Lek buffer distances will be applied at the project-specific level as required conservation measures to address the impacts on leks identified in the NEPA analysis. The lek buffer distances set forth in the land use plans vary by type of disturbance, such as road, energy development, and infrastructure; moreover, departures from the buffer distances set forth in the plans may be appropriate, as fully described in the appendices of the approved plans.

The buffer distances set forth in the plans range from 0.25 miles for noise and related disruptive activities, to 1.2 miles for low structures, 2 miles for high structures, and up to 3.1 miles for roads, energy, and surface disturbance. Justifiable departures to increase or decrease the specified distances will be based on local data, landscape features, and other existing protections (including state regulations).

Question 4: At the time of the announcement of the 10 million acre mineral withdrawal in conjunction with the sage grouse land use plans, DOI officials went on record saying that the "withdrawn areas do not appear to be highly prospective for miners." On what specific information were such statements based as there is abundant USGS and state data indicating otherwise? Does DOI still believe that statement is correct? Who is conducting the mineral potential report required under FLPMA to determine mineral potential?"

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Response: Statements made by Department of the Interior (DOI) officials were based on the best information available at the time that the lands were proposed for withdrawal.

The lands proposed for withdrawal are spread across 6 states and include large irregular and noncontiguous tracts. Geologic data for these tracts exists in multiple scientific reports completed by government agencies, both federal and state, as well as academic institutions. At the onset of the process of analyzing the withdrawal proposal, no complete mineral inventory of these lands existed, but the United States Geological Survey (USGS) has recently completed a mineral potential report. BLM believes that this report is the first complete mineral assessment for these tracts.

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Questions from Sen. Hoeven

Question 1: In the hearing, I referenced North Dakota's specific concerns with the federal land use plan for sage grouse conservation in the state. You pledged to provide a more specific response to the state's issues, discuss with Montana/Dakotas Director Jamie Connell about how the response was prepared, and explain why – despite "extensive state-federal collaboration" – North Dakota's concerns were discounted or dismissed by BLM.

- **Please provide a response detailing the process, decision justifications, and future opportunities for the state to provide meaningful input during the next stages of implementation.**

Response: The Governor's Office has had the opportunity to review and provide comments on 7 instruction memoranda that provide guidance to BLM employees on implementing the plans first in March-April 2016 and a second time in August 2016. Through the SGTF, the State has had opportunities to provide feedback on what is and is not working with the plans. That opportunity will continue throughout implementation. The Governor's Office can also engage with the BLM State Director individually at any time. Project-specific NEPA documents will be made available for review and comment in accordance with the BLM's normal procedures, and State agencies will be invited to trainings and workshops as they are organized. Additionally, several different regional teams are forming to address mitigation, conservation, and restoration issues where state participation will be sought. The BLM's State Implementation Coordinators and Regional Coordinators will be contacting state agencies within the next few months for their participation if they have not already done so. Information concerning training, workshops, and team membership and other activities and opportunities to engage will be posted on the BLM State Office websites.

Question 2: One concern for North Dakota centers on the federal land use plan's refusal to allow an "adaptive management strategy", which would provide flexibility to future oil and gas development and operations.

North Dakota has over 61,000 acres of BLM-managed land in its core sage grouse area that are already leased for oil and gas development. That is the highest percentage of acreage of any other state in the West. Under the federal plan, all of these acres would be subject to new leasing and development restrictions.

Yet, unlike other states, the federal land use plan for North Dakota does not allow for that broader "adaptive management strategy." This denies the state flexibility for future oil and gas development and operations based upon changed circumstances.

- **Why does the federal rule treat North Dakota differently and not allow the state to have adaptive monitoring and response for the sage grouse? Under**

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the current plan, what specific ways can the state provide flexibility without an allowable “adaptive management strategy”?

Response: The BLM’s adaptive management strategies included in the other plans and plan amendments for the conservation of GRSG were designed to reorient management to a more conservative set of actions if declines in the extent of habitat and/or the populations exceeded the triggers identified in the plans. In North Dakota, GRSG habitat and populations are extremely limited. The BLM, through discussions and interactions with the FWS and the North Dakota Game and Fish Department, determined that given the current status of the population and extent of GRSG habitat in North Dakota, adaptive management based on habitat and population triggers alone as outlined in the other plans was insufficient because any meaningful trigger would have already been exceeded. In addition, a large percentage of Priority Habitat Management Area (PHMA) is underlain by private mineral estate and 85 percent of the high potential federal mineral estate in PHMA is already leased and held by production. Therefore, the ability of the BLM to adopt a more conservative set of management actions beyond a no surface occupancy stipulation for oil and gas development that would be meaningful for Greater sage-grouse conservation was limited.

Specific projects in a specific location and context will be assessed based on the decisions in the BLM Land Use Plan Amendments and local conditions, while allowing for flexibility in implementation at the project level as appropriate.

Question 3: Another concern for North Dakota involves the federal land use plan’s effect on unleased federal lands. The rule stipulates “No Surface Occupancy” within the core sage grouse region.

North Dakota has close to 10,000 acres that are not currently leased for oil and gas development. Those are acres that could be leased in the future. The federal rule’s “No Surface Occupancy” requirement could unilaterally modify a mineral owner’s existing contract rights by requiring no new surface impacts.

North Dakota has argued that this stipulation may actually be detrimental to sage grouse habitat. By contrast, North Dakota’s current state plan allows for a ‘case-by-case’ analysis and adapts accordingly – an outcome the federal rule does not allow.

In fact, BLM’s official response to the state dismissed such concerns stating that, ‘case-by-case’ flexibility is inconsistent with the purposes, policies, and programs of federal laws.”

- How do you justify BLM’s “No Surface Occupancy” stipulation with the BLM’s statutory principles of multiple use and sustained yield for public lands? Will the cumulative effects of this federal rule make further energy development on federal lands uneconomic and infeasible? To what extent? If not, why do many states and industry organizations

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disagree? Conversely, did BLM evaluate any negative effects on private oil and gas development in areas intermixed with large amounts of federal lands? If so, what are those effects and to what extent?

Response: In North Dakota, the BLM has identified oil and gas development as the primary threat to GRSG. Since bird population levels are so low, and habitat limited, the BLM determined that it was necessary to provide protection to GRSG from this threat by applying a no surface occupancy (NSO) stipulation to new leases of federal fluid minerals within the most important habitat which is designated as Priority Habitat Management Area (PHMA). This stipulation would only be applied to parcels of federal fluid mineral estate within the PHMA that are leased after issuance of the Record of Decision and will not be applied to existing leases.

There are only 61,197 acres of federal fluid mineral estate impacted by the North Dakota Resource Management Plan Amendment in PHMA (approximately 15 percent of the area). As noted above, much of the federal fluid mineral estate within the planning area is currently leased and held by production, and therefore would not be affected by the NSO stipulation for the life of the current lease.

The BLM provided for two exceptions to this stipulation, including one specifically for areas of mixed-ownership. The exceptions could be applied to the NSO stipulation in PHMA where federal minerals underlie less than 50 percent of the total surface, or areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid federal fluid mineral lease existing as of the date of the Record of Decision (ROD). The exception to the NSO on federal fluid minerals will be considered where the action:

1. Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or
2. Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG.

The impacts of the NSO decision were analyzed in the Environmental Impact Statement (EIS) accompanying the North Dakota plan amendment. The analysis indicated that the difference between the "No Action" alternative (the past management in the amendment area) and the current management would result in seven fewer wells drilled to access federal fluid mineral estate in the amendment area over the life of the plan (approximately 20 years).

The BLM's multiple-use and sustained yield objective includes management for the conservation of wildlife and habitat. The BLM considers all of the resources within its responsibility, including oil and gas development and wildlife habitat. The GRSG RMPs and amendments allow for the development of resources, within the goal of conserving this imperiled species. Thus, the BLM is attempting to balance energy development and

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sage grouse conservation consistent with its multiple use and sustained yield mission under FLPMA.

Question 4: The federal plan also requires that sage grouse mitigation produce a “net conservation gain”. This means that land users – like holders of federal oil and natural gas leases – are required to offset impacts and express a “net conservation gain”.

- **Does the federal plan require landowners to pay any type of compensation to fulfill the mitigation requirements of the conservation area – including in states that currently do not have this requirement in their sage grouse plans?**

Response: The BLM’s land use plans apply only to actions proposed on public lands. It does not apply to private landowners’ activities on their own lands.

- **Please provide examples of compensatory mitigation options likely to occur under this provision.**

Response: Through a work group of the SGTF, the states and federal partners are working to develop an approach to mitigation that would allow for the use of state-developed GRSF mitigation programs, subject to review by the BLM and FWS, and consistent with the mitigation principles jointly being developed by the state and federal SGTF members. Examples of state-promoted or developed compensatory mitigation programs include:

- The State of Nevada’s Conservation Credit System
- The State of Colorado’s Habitat Exchange
- The State of Idaho’s In-Lieu Fee proposal
- The State of Wyoming’s Sweetwater River Conservancy Conservation Bank.

- **Please outline how the agency will determine the value and cost-effectiveness of those mitigation options.**

Response: Through a work group of the SGTF, the states and federal partners are working together to define the key principles associated with effective mitigation, define key concepts such as baseline condition and additionality, and determine what parameters should apply to evaluating if net conservation benefit is achieved.

- **Please detail the process landowners and developers would be required to document, submit, and receive agency approval for those mitigation options.**

Response: The BLM’s land use plans apply only to actions proposed on public lands, which would be subject to compliance with applicable federal laws, including the National Environmental Policy Act. This process does not apply to private landowners’ activities on their own lands. For mitigation of projects on public lands, the states and

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federal partners are working together to define the key principles associated with effective mitigation, define key concepts, and means for approval for mitigation options.

Question 5: I am also concerned about the effect the federal plan might have on livestock grazing on public lands.

Over 22,000 ranchers graze cattle and sheep on federal lands. In North Dakota, our grazing associations work closely with federal agencies to allow their livestock to graze on public lands in a manner that both benefits the health and vitality of the grasslands and ranchers. For instance, well-managed grazing can increase wildlife diversity and populations, control invasive weeds, and reduce the risk of wildfire.

Several hearing witnesses mentioned that some of the most significant threats to the greater sage grouse are wildfire and invasive plants.

- **Do the federal land use plan amendments curtail grazing in the Rocky Mountain Region? If so, to what estimated extent?**

Response: No. The land use plan amendments do not curtail grazing. The BLM will continue to work with permittees and other stakeholders during the permit review and renewal process to conduct land health evaluations, complying with the National Environmental Policy Act (NEPA), in the process of permit reviews and in issuing proposed/final grazing decisions. The process will specify permit terms and conditions to meet the identified sage-grouse habitat objectives.

- **Does the Interior Department agree grazing can help mitigate threats of wildfire and invasive plants?**

Response: The BLM uses an Integrated Pest/Vegetation Management approach when controlling and managing invasive plants. Targeted grazing is one tool and treatment method that can be used to help mitigate threats of wildfire and control invasive plants. In January 2015, the Secretary issued Secretarial Order 3336, which called for the development of a comprehensive, science-based strategy to reduce the size, severity, and cost of rangeland fires and address the spread of cheatgrass and other invasive species. A team is currently evaluating and exploring opportunities for livestock grazing permittees and private landowners to assist in fuel treatment actions for reducing invasive annual grasses and other fine fuels through demonstration projects.

Questions from Sen. Warren

Deputy Assistant Secretary Lyons, you stated in your testimony that development of the BLM Greater Sage-Grouse plan decisions reflected an effort to work at a landscape-level, to incorporate new science and information in the planning process, and to emphasize close coordination and collaboration with other federal agencies and with the states. This increased coordination and planning created a new paradigm in the way lands and resources can be managed.

**Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests and Mining
June 28, 2016 Hearing on Sage Grouse Conservation Issues**

Most people think of the Endangered Species Act (ESA) as a listing for species that are identified as endangered or threatened with extinction, but a critical component of the ESA its ability to take a comprehensive approach to protecting the ecosystems that provide sustainable habitats for these vulnerable species.

You further stated in your testimony that a comprehensive approach to species conservation is reflective of the goals of the ESA and that a stated purpose of the ESA is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.”

Question 1: The federal government employed a comprehensive habitat strategy to conserve greater Greater Sage-Grouse habitat across the West on public lands, which resulted in avoiding the necessity of placing the species on the ESA listing. Do you believe that this habitat model can be duplicated in other regions across our country and how important was the ESA in driving this plan?

Response: Yes, we believe the wildlife management strategy that identifies core areas for wildlife populations and identifies specific conservation goals and objectives for those species in response to identified threats to the species and its habitat could be successfully replicated in other parts of our country.

The conservation measures in the plans are intended to address the threats identified in the COT Report. The 2015 BLM resource management plans contain conservation measures that apply across the 10 western states. Additionally, because sage-grouse habitats occur on land held not just by the federal government, but by state and local governments and private individuals, the BLM is working with the USFS, the FWS, the Natural Resources Conservation Service, and the state governments on Greater sage-grouse conservation measures across other parts of the landscape. Working at a landscape-scale, using the best available science, and engaging stakeholders and partners in collaborative conservation efforts to address identified threats to wildlife species and maintain healthy habitat conditions offers an opportunity to improve wildlife management regardless of the location. Maintaining ecological integrity and landscape health in order to avoid the need to list a species as threatened or endangered is key to reducing the conflicts and controversy that can be associated with the ESA.

Question 2: While preserving the Greater Sage-Grouse was the primary goal, the habitat protection and restoration components of the BLM’s plan have provided additional benefits for other species. Do you believe that Congressional efforts to eliminate federal plans would not only imperil the primary species targeted for protection, but also potentially jeopardize the long term sustainability of other species in the ecosystem?

Response: Absolutely. We believe that implementation of the conservation measures included in the BLM and USDA Forest Service land use plans to reduce threats to the

**Committee on Energy and Natural Resources
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June 28, 2016 Hearing on Sage Grouse Conservation Issues**

GRSG and restore the health of the sagebrush ecosystem will benefit 350 other species that occur in, or rely on, sagebrush habitats in the West. Combined with the new focus on reducing the threat of rangeland fire and restoring areas affected by fire and invasive species such as cheatgrass, we believe this is the best strategy for sustaining the iconic sagebrush ecosystem and the wildlife and communities which depend upon it. In partnership with other federal agencies, the states, stakeholders, and the public, we believe that this approach is the most efficient and cost-effective means of reducing conflict and restoring the health of this important landscape.

Attachments



United States Department of the Interior
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Washington, D.C. 20240
<http://www.blm.gov>



In Reply Refer To:
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SEP 1 2016

Instruction Memorandum No. 2016-145
Expires: 09/30/2019

To: State Directors (California, Colorado, Idaho, Montana/Dakotas, Nevada, Oregon/Washington, Utah, and Wyoming), and Center Directors

From: Deputy Director *Stewart Allen*

Subject: Tracking and Reporting Surface Disturbance and Reclamation

Program Area: Fluid Minerals, Solid Minerals, Lands and Realty, Renewable Energy, Recreation, and Land Use Planning and NEPA.

Purpose: This Instruction Memorandum (IM) provides the policy on tracking and reporting surface disturbance and reclamation within and outside of Greater Sage-grouse (GRSG) Priority Habitat Management Areas (PHMA). The *Approved Resource Management Plan Amendments for the Rocky Mountain and Great Basin GRSG Regions and Nine Approved Resource Management Plans in the Rocky Mountain GRSG Region* (collectively referred to as the GRSG Plans) require the BLM to track disturbance and reclamation in designated GRSG Priority Habitat Management Areas (PHMA).¹ The Surface Disturbance Analysis and Reclamation Tracking Tool (SDARTT) will be used to fulfill this requirement. Authorized Officers outside of GRSG PHMA may choose to use SDARTT to track disturbance and reclamation. This IM explains the capabilities of the national web-based SDARTT, user support options, and guidance for field offices (FOs) use an existing disturbance and reclamation tracking tool. Additionally, the IM provides information and policy about the annual all-land disturbance estimates on PHMA in GRSG Biologically Significant Units (BSUs)², which are defined in the GRSG Plans, finalized in September 2015.³ This policy will be implemented in conjunction with the protocols in the GRSG Plans' disturbance cap calculation method appendix, GRSG Monitoring Framework, and GRSG Implementation Guide.

¹ This policy also applies to Important Habitat Management Areas - IHMA (in Idaho only). Whenever discussing PHMA, IHMA also applies. Sagebrush Focal Areas (SFA) are a subset of PHMA; therefore, disturbance and density caps need to be tracked in SFAs as well.

² BSUs are a mid-scale geospatial area comprised of GRSG habitats that contains relevant and important habitats that are used as the basis for comparative calculations to support evaluation of changes to habitat. BSUs were developed by the BLM and individual state wildlife agencies; therefore, the delineation varies from state to state.

³ Exception: Lander ROD was finalized in June 2014.

Policy/Action:

The GRSG Plans require that the BLM track surface disturbance and reclamation in PHMA. Surface disturbance and reclamation will be tracked at two scales: project and BSU. Proposed development in PHMA will be entered into SDARTT to determine whether disturbance and density percentages will exceed thresholds. Of the 19 degradation threats identified in the FWS' 2010 listing decision, 12 were identified for tracking at the broad and mid-scale (BSU scale) in PHMA, with an additional 7 site scale disturbances to be tracked when authorizing proposed actions (project scale, e.g., proposed well location). Refer to Attachment 1 in this IM, which is copied from a Disturbance Cap Calculation Method Appendix included in each GRSG Plan. If a threat is not listed in Attachment 1, it will not be included in the PHMA disturbance calculation, unless a respective GRSG Plan includes additional threats or exceptions. Existing disturbance at the project scale will be calculated using existing disturbance data layers that can be input in SDARTT or digitizing on-the-ground disturbance using high resolution imagery, e.g. NAIP and uploading these data into SDARTT. BLM FOs should refer to their respective Appendix of the GRSG plan for the project scale disturbance cap details.

BSU estimates will use the data sets and estimated footprints outlined in the GRSG Monitoring Framework and will be calculated annually by the National Operations Center for all-lands in priority habitat. This information will be available via the BLM Geospatial Gateway (<https://blmspace.blm.doi.net/oc/intra/drs/Pages/GeoSpatialGateway.aspx>). This all-lands estimate will be used to inform the cumulative effects National Environmental Policy Act (NEPA) analysis, the appropriate disturbance objective(s), and, in some plans, the disturbance cap at the BSU scale. Please refer to the appropriate land use plan for details regarding disturbance calculations at the BSU scale. At both the project and BSU scales, co-located disturbances are encouraged and overlapping disturbance footprints are not additive in the calculations.

Use of SDARTT at the Project Scale:

BLM field offices with GRSG PHMA will use SDARTT to plan, calculate, track, and analyze project scale disturbances and reclamation in PHMAs, using the following website: <https://blm.sciencebase.gov>. Some offices (as described in the background section) have existing geodatabases and tools that comply with portions of this policy.⁴ It is appropriate for these FOs to continue using existing tools with the understanding that all disturbance and reclamation data will ultimately be consolidated into a national database. Efforts are underway to integrate existing systems with SDARTT.

The BLM, in conjunction with the project proponents, will use SDARTT or an existing disturbance quantification tool to upload surface disturbance proposals, compare and track siting alternatives, document the authorized disturbance footprints, record as-built footprints, generate maps and reports, and track interim and final reclamation. BLM staff will first be trained to use SDARTT; thereafter, operators and their third-party contractors will be trained. See Attachment 2 for a summary of SDARTT training plan and capabilities. In addition, when undertaking

⁴ For example, the State of Wyoming and its partners (including BLM Wyoming) have been using the Density Disturbance Calculation Tool (DDCT) since 2010 and the web-based application since 2012.

internally generated BLM projects that pertain to the 19 threats of surface disturbing activities in PHMA (see Attachment 1), the BLM will upload the proposed and final as-built spatial data of the disturbance into SDARTT for tracking and calculation purposes.

The BLM has also committed to track and calculate the density of energy and mining facilities at the project scale (except in NV), which will also be performed in SDARTT or other existing system. The density is limited to 1 facility for each 640 acres, on average, within the project analysis area. If a project that would exceed the degradation cap or density cap (for energy or mining facilities) cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA. Please refer to the density cap calculation methods in the appropriate land use plan, GRSG Monitoring Framework (p.28), Implementation Guide, and SDARTT User Guide.

There are variations and exceptions in the GRSG Plans, therefore refer to your respective GRSG plan, and the corresponding Disturbance Appendix for further information on how to calculate disturbance and reclamation. Some variations, where appropriate, are being incorporated into SDARTT functionality, such as Oregon's decadal calculations.

In the GRSG Plans, locatable minerals were considered one of the threats; therefore, disturbances and associated reclamation will need to be entered into SDARTT. Consistent with the mining laws, operations and post-mining land use must comply with the applicable BLM land-use plans and activity plans.

Template of Deficiencies and Condition of Approval (COA) /Stipulation Language to Include in Authorizations:

When writing deficiency letters or responses to proponents, the BLM may need to request that spatial data be submitted for all planned surface disturbance associated with that proposal, if they are located in PHMA or if a field office has chosen to use SDARTT outside of PHMA, or if the proponent did not provide these with their first submittal.

When approving surface disturbing authorizations, the BLM will apply COAs or Stipulations, to the extent consistent with applicable law, so the actual disturbance footprint, modification to the approval, and reclamation can be tracked. Refer to Attachment 3 for template COA/Stipulation language that can be included in authorizations, leases, permits, and grants.

Disturbance in GRSG BSUs:

The National Operations Center:

The National Operations Center (NOC) will calculate an all-lands estimate of disturbance levels of the 12 threats for the PHMA in each BSU on an annual basis. The first disturbance estimates, which used buffered datasets in Table 6 of the GRSG Monitoring Framework, are approximations and are available to all FOs through the BLM Geospatial Gateway. Moving forward, the NOC will produce the annual estimate and a 5-year trend estimate for all lands in PHMA by BSU. This information will be incorporated into a report produced by the

Washington Office and posted to the BLM Landscape Data Portal (<http://www.landscape.blm.gov/geoportals/catalog/main/home.page>).

State, District, and Field Offices:

The NOC calculation of the disturbance on PHMA in a BSU is only an estimate, which can be more precisely calculated using existing data, by digitizing disturbance, and/or conducting field inventories. State offices may perform BSU level disturbance calculations using locally available data to conform to additional requirements. More precise local calculations will be part of the land use plan conformance process and will be incorporated into the NEPA analysis for a proposed surface disturbing activity, when necessary, to ensure that BSU disturbance caps are not exceeded. Existing disturbance on private, state and other lands can be calculated using existing data or via digitization with aerial NAIP/other imagery and should include the threats listed in Attachment 1. This can be done in coordination with local partners. Data standards and templates for digitizing can be found in the SDARTT online Instructional User Guide.

Timeframe: This IM is effective immediately.

Budget Impact: The BLM received additional funding in Fiscal Year 2016 for geospatial data management including disturbance-related data. The workload associated with this policy includes development of and participation in WebEx training; working with and training local partners (e.g., states, counties, and other government and quasi-governmental entities), proponents and their third party contractors; assigning SDARTT verification roles; verifying proponent submitted spatial data (through aerial imagery, field inspections, or local knowledge); and incorporating SDARTT results into NEPA analysis. Data entry into SDARTT will occur in several levels of the agency at field/district offices, state offices, and the NOC, and the workload associated with data entry will vary by unit. Where cost-recovery is authorized, BLM will incorporate the costs of tracking disturbance and reclamation into the cost-recovery estimate. In the long-term, SDARTT should enable the BLM and proponents to save time and funds by providing consistent tools and simple calculations when processing activities causing disturbance as defined in each GRSG Plan. SDARTT will enable land managers to effectively implement planning decisions in site specific applications, and to detect unauthorized disturbances and unreclaimed lands; thereby reducing financial risk.

Background: The SDARTT tool was developed to fulfill the commitments made in the GRSG Plans to manage the amount of disturbance in GRSG PHMA. The USGS worked with several BLM FOs (Pinedale, Vernal, and White River) beginning in 2006, to develop disturbance and reclamation tracking databases which evolved into this national web-based tool. For example, the State of Wyoming and its partners (including BLM Wyoming) have been using the Density Disturbance Calculation Tool (DDCT) since 2010 and the web-based application since 2012.

Manual/Handbook Sections Affected:

Multiple program Manuals and Handbooks are likely to be affected.

Coordination: WO-300, WO-200, NOC, Office of the Assistant Secretary for Land and Minerals Management, and Office of the Solicitor.

Contacts: If you have any questions regarding this IM, please contact Gordon Toevs, National Sage Grouse Coordinator (202) 567-1589, Janna Simonsen, Senior Natural Resource Specialist Fluid Minerals (202) 912-7154, and Anthony Titolo, Natural Resource Specialist at the NOC (303) 236-0446. SDARTT user support is provided through the Help Desk, and via email: sdartt@usgs.gov or phone: (970) 226-9116.

3 Attachments

- 1-The 19 GRSG Disturbance Threats (1p)
- 2- SDARTT Training, User Support, Capabilities, Authentication (2pp)
- 3- Template for Deficiency Letters and Conditions of Approval or Stipulations (2pp)

Attachment 1 - The 19 GRSG Disturbance Threats

<u>The 12 GRSG Degradation Threats for disturbance calculations at the BSU and project scale</u>		
<u>1</u>	<u>Energy</u>	<u>Oil and Gas</u>
<u>2</u>		<u>Coal</u>
<u>3</u>		<u>Wind</u>
<u>4</u>		<u>Solar</u>
<u>5</u>		<u>Geothermal</u>
<u>6</u>	<u>Mining</u>	<u>Locatable, Leaseable, Saleable</u>
<u>7</u>	<u>Infrastructure</u>	<u>Roads</u>
<u>8</u>		<u>Railroads</u>
<u>9</u>		<u>Power lines</u>
<u>10</u>		<u>Communication</u>
<u>11</u>		<u>Other vertical structures</u>
<u>12</u>		<u>Other ROW</u>
<u>7 Additional GRSG threats for disturbance calculations at the project scale</u>		
<u>1</u>		<u>Coalbed Methane Ponds</u>
<u>2</u>		<u>Meteorological Towers</u>
<u>3</u>		<u>Nuclear Energy Facilities</u>
<u>4</u>		<u>Airport Facilities and Infrastructure</u>
<u>5</u>		<u>Military Range Facilities and Infrastructure</u>
<u>6</u>		<u>Hydroelectric Plants</u>
<u>7</u>		<u>Recreation Areas Facilities and Infrastructure</u>

More detailed subcategories and attributes can be found in the data dictionary templates in SDARTT than is included in this basic list of the 19 threats. Refer to the each GRSP Plan Disturbance Appendix for definitions and further information about the 19 threats.

Attachment 2: SDARTT Training, User Support, Capabilities, Authentication**Training**

- Introductory webinars for GIS Leads & other State Leads
- Followed by introductory FO/DO training
- Scheduled monthly follow-up online training
- Additional training available per user request and as needed
- Reclamation training
- Eventually Operator and Third-Party Contractor

User Support

- Webinar will be recorded and distributed
- BLM Information: <https://blm.sciencebase.gov/>
- Log in only: <https://blm.sciencebase.gov/sdantt>
- Instructions User Guide Link: <https://blm.sciencebase.gov/sdantt/manual>
- Help Desk Email: sdantt@usgs.gov
- Help Desk Phone: 970-226-9116
- Technical questions about project and disturbance analysis procedures; Anthony Titolo 303-236-0446

Capabilities of the SDARTT website**Upload Batches of Existing/Legacy Inventory Surface Disturbance and Reclamation Spatial Data**

- Accepts spatial data uploads
- Individual as well as one all-inclusive data dictionary template for each of the 19 disturbance types.

Disturbance Estimation Planning Tool

- Upload new proposed surface disturbance, which must be linked to a project analysis area.
- Upload a user created Project Analysis Area polygon
- Calculations: Track Disturbance Caps
 - SDARTT produces acres and percent of disturbance for each threat/total acres and percentage of disturbance within the proposed analysis area.
 - SDARTT produces density cap calculations averaged per project analysis area.
 - SDARTT produces either an “Exceeds” or “Within” determination.
 - The BLM will then approve or deny the proposed disturbance in SDARTT.
 - If the proposed disturbance is denied and needs a revision, then the revised polygon will be date stamped and linked to the initial project analysis area to be reanalyzed.

Map Functions

- Basic map functions – zoom in/out, pan, switch basemap, turn on/off all layers, etc.
- Draw or upload spatial data to view results within its boundary.
- Identify features with multiple data tabs.

Reporting

- Ad Hoc customizable query with result list and map display
 - Ability to export result set as PDF, CSV spreadsheet, (can be added to NEPA document) or spatial data.
- Predefined reports

Future Capability - Reclamation (In-Process and Final)

Once in-process and final reclamation spatial data are uploaded and verified, results of acres and percent calculation can be produced.

Authentication - Access Groups and Roles

- Field, district, state, and national office users can only access the offices to which they are directly granted permission. A tiered hierarchy of permission levels facilitates multiple user roles and verification responsibilities. These include: Approvers, Verifiers, Editors, and Readers, which are all tracked in SDARTT's database tables. Approvers grant access; Verifiers validate Editor's uploads; Editors provide data to the tool; and Readers view data but may not manipulate it.

Attachment 3 – Template for Deficiency Letters and Conditions of Approval or Stipulations

After the BLM staff is trained to use SDARTT, the operators and third party contractors will be trained to enter spatial data directly into SDARTT. Thereafter the wording for the deficiency letters and COAs will be modified slightly so that operators/ proponents will be required to enter the spatial data into SDARTT.

Template for Review Process – Deficiency Letters and Responses to Applications

When writing deficiency letters or response letters to applications, the BLM may need to request spatial data for all planned disturbance associated with a proposal, so that it may be uploaded in SDARTT, if the proposal is located in PHMA or if a field office has chosen to use SDARTT outside of PHMA. If the proponent did not provide spatial data for SDARTT with their initial submittal the following language can be applied to deficiency letters as a necessary item needed for processing, to the extent provided in applicable law.

APDs: “Submit spatial data for upload into SDARTT of all planned disturbance associated with the APD.”

Sundries: “Submit spatial data for upload into SDARTT of all planned disturbance associated with the Sundry.”

Saleable- exclusive material sales, free use permits and exploration permits: “Submit spatial data(s) for upload into SDARTT of all planned disturbance associated with the application for the contract or permit.”

Locatable: “Recommended submittal of spatial data for upload into SDARTT of all planned disturbance associated with the mining plan of operations (MPO).”

ROW: “Submit spatial data for upload into SDARTT of all planned disturbance associated with the Right of Way (ROW).”

Template of Conditions of Approval (COAs) or Stipulations

Consistent with applicable law, the following language may be applied as a COAs or stipulation when located in PHMA or if the Authorized Officer (AO) has chosen to use SDARTT outside of PHMA.

Fluid Minerals:

“Within 60 days of construction the operator must provide as-built spatial data(s). If a sundry or amendment involves additional or different surface disturbance, then the proposed project spatial data must be loaded into SDARTT as part of the BLM’s review of all necessary items needed to make an informed decision. The operator must provide interim and reclamation spatial data for the purpose of being loaded into SDARTT in conjunction with the sundry submittal.”

Rights-of-Way:

“Within 90 days of completing construction the proponent must provide as-built spatial data(s) for the purpose of being uploaded into SDARTT. If a ROW amendment or renewal involves additional or different surface disturbance, then the proposed project spatial data must be loaded into SDARTT as part of the BLM’s review of all necessary items needed to make an informed decision. The proponent will provide reclamation spatial data for the purpose of being loaded into SDARTT. Upon ROW termination and approval of final reclamation, spatial data will be provided to the BLM.

Solid Minerals:**Non-Energy Leasable**

"The proponent will provide spatial data(s) for the purpose of being uploaded into SDARTT for modifications or new disturbance associated with the Exploration or Mining Plan as part of the BLM's review process. "This includes prospecting permits, exploration licenses, and competitive and non-competitive leases." The proponent will also provide interim and reclamation spatial data for the purpose of being loaded into SDARTT."

Coal Leaseable-

"The proponent will provide spatial data(s) for the purpose of being uploaded into SDARTT for modifications or new disturbance associated with the application area as part of the BLM's review process. This includes an exploration license, lease by application, preference right lease, negotiated sale, or lease exchange. The proponent will also provide interim and reclamation spatial data for the purpose of being loaded into SDARTT."

Locatable –

Provided that the operator agrees to inclusion of this in its approved plan of operations this language may be included: "The proponent will provide spatial data(s) for the purpose of being uploaded into SDARTT for modifications or new disturbance associated with the mining plan of operations (MPO) as part of the BLM's review process. The proponent will also provide interim and reclamation spatial data for the purpose of being loaded into SDARTT."

Saleable-

"The proponent will provide spatial data(s) for the purpose of being uploaded into SDARTT for modifications or new disturbance associated with the application area for mineral material sales contracts and free use permits as part of the BLM's review process. The proponent will also provide interim and reclamation spatial data for the purpose of being loaded into SDARTT."



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SEP 1 2016

Instruction Memorandum No. 2016-144
Expires: 9/30/19

To: State Directors (California, Colorado, Idaho, Montana, Nevada, Oregon/Washington, Utah, and Wyoming) and Center Directors

From: Deputy Director *Steven Feltz*

Subject: Gunnison and Greater Sage-Grouse (including the Bi-State Distinct Population Segment) Habitat Assessment Policy

Program Areas: Wildlife Management, Threatened and Endangered Species Management, Rangeland Management, Riparian Management, Fuels Management, Vegetation Management, Emergency Stabilization and Rehabilitation.

Purpose: This Instruction Memorandum (IM) provides policy on how to assess habitat for Gunnison and Greater Sage-Grouse, including the Bi-State Distinct Population Segment, (hereafter referred to as "sage-grouse") and under what circumstances the habitat assessment is required.

Policy:

- The Bureau of Land Management (BLM) offices that manage sage-grouse habitats are required to use the mid-, fine-, and site-scale indicators and the habitat suitability rating process provided within the Sage-Grouse Habitat Assessment Framework (HAF; Technical Reference 6710-1, Stiver et al. 2015) when assessing sage-grouse habitat for a population/subpopulation/biologically relevant area that encompasses sage-grouse seasonal habitats. Offices may look for opportunities to integrate other measurement and modeling assessment approaches into the habitat assessment.
- Field offices whose GRSQ Plan contains a Habitat Objectives Table are required to use the objectives table (and any associated footnotes) when completing sage-grouse habitat assessments. Ecological potential of sites within the assessment area will be taken into account when analyzing the sampling locations and interpreting the habitat measures.
- Field offices (FO) are required to use the site-scale HAF suitability ratings (e.g., suitable, marginal, unsuitable), following the HAF methodology to determine suitability, when evaluating the wildlife/special status species habitat quality land health standard.

- Field offices will include prioritization criteria from the Approved Resource Management Plan Amendments for the Rocky Mountain and Great Basin GRSG Regions and nine Approved Resource Management Plans in the Rocky Mountain GRSG Region (collectively referred to as the GRSG Plans) when establishing priorities for sage-grouse habitat assessments.
- Field offices whose RMP does not contain a Habitat Objectives Table should use objectives from an applicable sage-grouse conservation plan (e.g., Gunnison Sage-Grouse Rangewide Conservation Plan); use the habitat suitability characteristics found in the HAF; or follow procedures set forth in the HAF to modify the indicator values to use during sage-grouse habitat assessments.
- BLM offices that complete a multi-scale sage-grouse habitat assessment are required to compile a Habitat Assessment Summary Report.
- BLM offices will use the Habitat Assessment Summary Report to inform the wildlife/special status species habitat quality land health standard(s) when completing Land Health Assessments and Land Health Standard(s) evaluation¹ (BLM Handbook 4180-1, Land Health Standards) and associated National Environmental Policy Act (NEPA).
- State offices (SO) are required to post Habitat Assessment Summary Reports completed in their state to the BLM Sage-Grouse Implementation SharePoint site.
- Data and information from several sources can be used to inform sage-grouse habitat assessments while considering their limitations. Responsibilities for collecting and managing sage-grouse habitat data and information are described herein.
- The BLM Washington Office (WO), National Operations Center (NOC), National Training Center (NTC), Regional/Zone Leads and other subject matter experts will develop training opportunities to support implementation of this policy.

Prioritizing Sage-Grouse Habitat Assessments

BLM FO authorized officer will set priorities for sage-grouse habitat assessments using prioritization criteria consistent with the applicable GRSG Plan. Priorities may be further refined by BLM FO wildlife biologists, Interdisciplinary Teams (IDT), and in coordination with state agencies to ensure that sage-grouse habitat assessments are conducted within areas where habitat information is limited, or within populations where changes in management may be expected to improve sage-grouse habitat (e.g., for compensatory mitigation purposes, where a GRSG Plan adaptive management trigger has been tripped, etc.). Also, an evaluation of existing data, such as core and supplemental indicator data collected as part of the Assessment, Inventory and Monitoring (AIM) Strategy and legacy trend data, as well as other ecological data will help prioritize assessments in areas where habitat does not appear to be suitable.

Creating and Using a Habitat Assessment Summary Report

A Habitat Assessment Summary Report will be developed and used to inform the Land Health Assessment and Land Health Standard(s) evaluation relative to wildlife/special status species

¹ Adjustments to authorized use based on not meeting the land health habitat standard are made once a determination is complete, the causal factor has been identified, and current conditions are taken into consideration.

habitat quality standard(s) ("BLM Handbook 4180-1, Land Health Standards") and associated NEPA.

Field offices will coordinate with district offices (DO), SOs and the NOC, as well as with state agencies, other federal agencies and research partners, to acquire the best available data to inform mid-, fine- and site-scale suitability ratings. After the mid-, fine, and site-scale HAF forms and descriptions are completed, FOs will compile a Habitat Assessment Summary Report that follows this outline and contains (at a minimum):

- Contact information for the FO.
- An Executive Summary
 - Summarized information about data sources and the metadata.
 - Summary of how sampling locations were selected (e.g., randomization, targeted, strata, etc.).
 - Maps of the assessment area and habitats within the assessed area.
 - A summary of the suitability ratings and the rationale used to reach the suitability rating.
- A description of habitat condition and extent (e.g. limiting, such as late brood-rearing riparian areas), and significant threats within the analysis area.
- A description of indicator values used to assess suitability. If the indicator values were modified from those found in HAF or supplemented using other measurement or modeling approaches, include a summary of the process and scientific basis for the modification (e.g., the GRSG Plan).
- An appendix of completed HAF Data Forms from the mid-, fine-, and site-scales that were used to assess habitat suitability.

Upon completion of each Habitat Assessment Summary Report, the FO will submit a pdf version of the report to the SO to be uploaded to the GRSG Implementation SharePoint site.

The Habitat Assessment Summary Report can also be used to:

- Inform management actions to improve sage-grouse habitat at the mid-, fine-, and site-scales.
- Identify metrics to monitor for determining the effectiveness of vegetation treatments in sage-grouse habitats.
- Provide context in NEPA documents for proposed actions in sage-grouse habitats.
- Inform the habitat value (e.g. condition and extent) of debits and credits related to compensatory mitigation and can be used in conjunction with state developed compensatory mitigation valuation approaches.

Sage-Grouse Habitat Data Acquisition and Management

To implement multi-scale sage-grouse habitat assessments, a high level of coordination is necessary at all levels of the BLM (WO, SOs, DOs, FOs, NTC and the NOC). Although some specific duties may change over time, the general responsibilities of each office are outlined below. The BLM will continue to collaborate with state wildlife agencies, other federal agencies, research partners and others to share results relevant to sage-grouse habitat and population data (e.g., radio-telemetry).

General Responsibilities:

1. BLM FOs, DOs, and SOs will work with the assessment and monitoring branch at the NOC to design a sampling strategy that conforms to the national AIM sampling strategy and provides adequate sample points in sage-grouse seasonal habitats to complete the site-scale habitat assessment data collection.
2. BLM offices in need of additional sampling locations to complete the habitat assessment process should use a statistically-valid sampling design that conforms to the AIM strategy. FOs should coordinate with their state AIM coordinator or the NOC AIM leads to generate an appropriate sample design.
3. BLM FOs are responsible for identifying data gaps; coordinating with the DO/SO to gather data; and interpreting and writing mid-, fine-, and site-scale suitability descriptions and ratings, as well as the Habitat Assessment Summary Reports. Habitat Assessment Framework indicator data should be in a standardized spreadsheet or database and FOs should submit habitat assessment data and reports to a centralized electronic folder that is maintained by the SO.
4. The BLM WO, NOC, NTC, Regional/Zone Leads, SOs and other subject matter experts will develop training opportunities for sage-grouse habitat assessment data collection, interpretation and report writing. Training for field data collection of the AIM Core Indicators is available and coordinated through the assessment and monitoring team at the NOC and the appropriate state office program lead(s).
5. Broad-scale data: The NOC maintains, updates and serves broad-scale spatial data sets (e.g., LANDFIRE and Grass-Shrub Stewardship Fractional Mapping) and derived products.
6. Mid- and fine-scale data: The WO, NOC and SO share responsibility for maintaining and updating mid- and fine-scale spatial data (e.g. anthropogenic disturbances, seasonal habitat, and biologically significant unit boundaries).
7. Site-scale data: The FOs, DOs and/or SOs are responsible for site-scale data collection, quality assurance, and management. The NOC is responsible for consolidating and serving the site-scale habitat indicator data collected under the AIM core methodologies, as well as providing analytical support for these data.
8. BLM SO and FO will work with states to share and acquire data.

Datasets to Inform HAF Site-Scale Indicators

The core and supplemental indicator data collected as part of the AIM strategy should be used to inform the HAF site-scale indicators within sage-grouse habitats. If the field office has collected data following techniques other than the AIM technique (HAF, Table 14), begin transitioning to the AIM techniques for consistent measurements across the range. While some HAF indicators may be applicable to multiple seasonal habitats, it is important that grass and forb related data be collected during the appropriate phenology. Currently, the AIM core data does not inform all of the site-scale indicators identified in the HAF. Examples are:

- Distance from a lek to adequate sagebrush cover.
- Proximity of detrimental land uses from a lek.
- Proximity of trees and other tall structures from a lek.

- Riparian/wet meadow stability.
- Sagebrush shape.

The need for data to inform the indicators not collected using the core measurements, or other datasets, should be evaluated on a case by case basis. Consider acquiring the data for the lek-specific indicators using remotely-sensed or other existing data and/or consider their relative importance in the determination of the suitability rating. Additionally, indicators not described in the HAF (such as lentic sites) may be useful to address specific habitat characteristics in some areas and should be added as needed to complete the suitability rating.

Field Offices may also consider using BLM legacy data or integrate other datasets and information to inform the evaluation of habitat indicators or trends in habitat condition. The utility of these datasets to fully inform the HAF indicators and allow assessment across a larger landscape may be limited, and should be evaluated and documented in the Habitat Assessment Report.

Establishing Habitat Suitability Indicator Values

Habitat indicator values in the HAF technical reference forms should be used to rate suitability (i.e., suitable, marginal and unsuitable) unless these indicator values 1) differ from the values in the GRSG Plan Habitat Objectives Table, or 2) fail to accurately reflect regional scientific information. The following steps describe the process for adjusting habitat suitability indicator values in the HAF technical report forms:

1. Where they differ, replace the HAF indicator values for a *suitable* rating on Forms S-2 through S-6 with the GRSG Plan Habitat Objective desired conditions.
2. If the indicator values for a suitable rating were replaced in Step 1, develop indicator values for the *marginal* and *unsuitable* ratings using the process that was used to determine the desired conditions in the Habitat Objectives Table in the GRSG Plans.
3. In FOs without a GRSG Plan Habitat Objective Table, or in regions where science and data support adjustments to the indicator values, use the applicable sage-grouse conservation plan objectives (e.g., Gunnison Sage-grouse Rangewide Conservation Plan) or follow the process identified in the HAF Technical Reference (pages 20 and 21) to develop *suitable*, *marginal* and *unsuitable* indicator values. Coordination with state agencies during this process is encouraged.

Data forms in the HAF technical reference have been modified to allow changes to the indicator value columns as well as to allow additional indicators in the rows for those offices that have additional indicators and associated values from the applicable GRSG Plan Habitat Objectives Table or other sage-grouse conservation plan. The customized forms may be found at:

http://www.blm.gov/wo/st/en/info/blm-library/publications/blm_publications/tech_refs/SG_HAF.html

Timeframe: This IM is effective immediately.

Budget Impact: The BLM requested additional funds in fiscal year (FY) 2016 and FY 2017 President's Budget Request for sage-grouse conservation. The BLM received the additional

funding in FY 2016 and will use some of the funds to collect habitat indicator data, train staff to complete sage-grouse habitat assessments, and develop data and GIS products such as seasonal habitat and vegetation maps, and anthropogenic disturbance inventories. Sage-grouse habitat assessment implementation will be phased in, following prioritization as described in this IM and based on available budgets.

Background: The HAF is a key component of measuring the success of the BLM's conservation strategy to maintain, enhance or restore seasonal habitats that meet sage-grouse life history needs. The HAF has been refined by decades of sage-grouse research and policy and provides a high level of consistency, transparency and expertise to sage-grouse habitat assessments. The HAF is recognized in the scientific community as a blueprint for sage-grouse habitat evaluation.

In 2000, BLM-Idaho developed a habitat assessment process that provided a standardized framework to assess indicators of sage-grouse habitat, largely focused on the site scale (Sather-Blair et al. 2000). In 2006, WAFWA, and other habitat specialists and sage-grouse experts from state, federal, and non-governmental organizations, built on the concept and initiated a habitat evaluation tool. The habitat evaluation tool provided a standardized assessment framework to assess additional indicators of sage-grouse seasonal habitats including the fine, mid and broad scale, in addition to the site scale. The Greater Sage-Grouse Comprehensive Conservation Strategy (Stiver et al. 2006) outlined objectives for the HAF, including temporal and spatial methods for evaluating sage-grouse habitat suitability at multiple landscape scales. An initial version of this more comprehensive HAF was released in 2010 and subsequently refined (Stiver et al. 2015). Conducting the HAF at multiple scales within sage-grouse habitat remains a cornerstone of the sage-grouse conservation strategy.

Manual/Handbook Sections Affected: Manual 4180 and Handbook 4180-1, Manual 6500, Manual 6600, Manual 6840.

Coordination: This IM was coordinated with the Division of Forest, Rangeland, Riparian and Plant Conservation, the AIM Lead, the NOC Division of Resource Services, and BLM State Office wildlife and sage-grouse leadership within the range of sage-grouse.

Contacts: Questions or concerns should be addressed to Steve Small, Division Chief, Fish and Wildlife Conservation (WO-230), at 202-912-7366 or ssmall@blm.gov and Vicki Herren, BLM National Sage-Grouse Coordinator at 202-912-7235 or vherren@blm.gov

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United States Department of the Interior
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Instruction Memorandum No. 2016-143
Expires: 09/30/2019

To: State Directors (California, Colorado, Idaho, Montana/Dakotas, Nevada, Oregon/Washington, Utah, and Wyoming), and Center Directors

From: Deputy Director *Steven A. Ellis*

Subject: Implementation of Greater Sage-Grouse Resource Management Plan Revisions or Amendments – Oil & Gas Leasing and Development Sequential Prioritization

Program Areas: Oil and Gas Leasing and Operations, Land Use Planning, National Environmental Policy Act (NEPA) Compliance, and Wildlife – Greater Sage-Grouse.

Purpose: This Instruction Memorandum (IM) provides guidance on prioritizing implementation decisions for Bureau of Land Management (BLM) oil and gas leasing and development, to be consistent with the Approved Resource Management Plan Amendments for the Rocky Mountain and Great Basin GRSG Regions and nine Approved Resource Management Plans in the Rocky Mountain GRSG Region (collectively referred to as the GRSG Plans). This IM applies to activities in the areas covered by both the Rocky Mountain (RM) and Great Basin (GB) Regions Records of Decision (RODs), issued by the BLM in September 2015.¹ This IM also contains reporting requirements for communication between State Offices and the Washington Office.

The objectives of this IM are: to ensure consistency across BLM offices when implementing the GRSG Plans decisions aimed at avoiding or limiting new surface disturbance in Priority Habitat Management Areas (PHMAs), including Sagebrush Focal Areas (SFAs), and minimizing surface disturbance in General Habitat Management Areas (GHMAs); and to provide clarity to the BLM Field Offices on how to move forward with oil and gas leasing and development activities within designated GRSG habitats². This IM provides guidance on how the BLM will exercise the

¹ These Records of Decision are accessible through links on the BLM webpage for Sage-Grouse and Sagebrush Conservation, at <http://www.blm.gov/wo/st/en/prog/more/sagegrouse.html>.

² In addition to PHMAs, SFAs (a subset of PHMA), and GHMAs, other designations were made in the GRSG Plans. These include: "Important Habitat Management Areas" (IHMA – only applicable to the State of Idaho), "Linkage-Connectivity Habitat Management Areas" (LCHMA – applicable only in Colorado), "Restoration Habitat Management Areas" (RHMA – applicable only in the Billings and Miles City Field Offices), and "Other Habitat Management Areas"

Secretary of the Interior's discretion with regard to leasing activities in order to fulfill the conservation commitments in the GRSG Plans, to facilitate efforts to reduce the costs to project proponents and the BLM from the potentially extended time it may take for leasing and permitting within GRSG habitat, and to demonstrate that the GRSG Plans are being implemented consistently and transparently. BLM offices are encouraged to work collaboratively with relevant state and federal agencies as well as stakeholders to develop strategies and incentives to encourage and prioritize leasing and development outside of GRSG habitats.

Policy/Action: The BLM's Authorized Officer, acting under the delegated authority of the Secretary of the Interior, has discretion to determine which public lands will be offered at a lease sale. The Mineral Leasing Act of 1920 (MLA), as amended, provides that lands subject to disposition under the Act "which are known or believed to contain oil or gas deposits may be leased by the Secretary." (30 U.S.C. § 226(a) (emphasis added)). When evaluating Expressions of Interest (EOIs) to lease particular parcels, pursuant to the Competitive Leases Handbook (H-3120-1), the BLM will plan for leasing and development in accordance with the objectives and provisions in the GRSG Plans.

This IM does not prohibit leasing or development in GHMA or PHMA as the GRSG Plans will allow for leasing and development by applying prioritizing sequencing, stipulations, required design features, and other management measures to achieve the conservation objectives and provisions in the GRSG Plans. If the Authorized Officer determines that the potential environmental impacts could be significant while preparing the NEPA document, then the Authorized Officer will prepare an Environmental Impact Statement.

This guidance is not intended to direct the Authorized Officer to wait for all lands outside GRSG habitat areas to be leased or developed before allowing leasing within GHMAs, and then to wait for all lands within GHMAs to be leased before allowing leasing or development within the next habitat area (PHMA, for example). Rather it is intended to ensure consideration of the lands outside of GHMAs and PHMAs for leasing and development before considering lands within GHMAs and, thereafter, to ensure consideration of lands within GHMAs for leasing and development before considering any lands within PHMAs for leasing and development in an effort to focus future surface disturbance outside of the most important areas for sage-grouse conservation consistent with the conservation objectives and provisions in the GRSG Plans. This guidance is also intended to ensure careful consideration of the factors identified below when making any leasing and development decisions.

The BLM does not manage leasing on Tribal Trust or allotted lands and the GRSG Plans do not apply to such lands. Therefore, the policy in this IM does not apply to leasing on Tribal Trust or allotted lands. However, the BLM does review Applications for Permit to Drill (APDs) and other permitting actions related to development on Tribal Trust and allotted lands. As noted

(OHMAs – only applicable to Nevada and Northeastern California, which contain no GRSG habitat). The BLM State Offices will consider leasing in these areas as is appropriate in accordance with the applicable RMP. Wyoming's "Core Areas" are generally designated PHMAs. IHMA are a level of protection in-between PHMA and GHMA; therefore, prioritization for processing development proposals will be implemented in this sequence: outside of GRSG habitat, then in GHMA, next in IHMA, and lastly in PHMA. Refer to the approved RMP, as revised or amended.

below, to the extent the BLM receives a request for such a permitting action within PHMA, including an SFA, GHMA, or other GRSG habitat area (as described in footnote 2, the BLM will consult with the appropriate tribe(s) on a case-by-case basis as a part of its permitting decision-making process.

This policy applies to leasing of federal mineral estate and development on lands managed by the BLM and other federal surface management agencies.³ This policy also applies to split estate lands in which the mineral estate is reserved to the United States.

The GRSG Plans include decisions to prioritize geothermal resources; however, due to varying workloads and processes this IM focuses on prioritization of oil and gas leasing and permitting and does not address the prioritization within the geothermal program. State offices will address prioritization and associated factors for geothermal resources on a case-by-case basis.

A. Leasing: Sequential Prioritization of Oil and Gas Leasing in Proximity to PHMAs and GHMAs

The GRSG Plans include a decision to “prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs.” (Rocky Mountain ROD at page 1-25, GB ROD at page 1-23).⁴

Therefore, based on the GRSG Plans’ conservation objectives and provisions, the BLM will prioritize the leasing of oil and gas resources in accordance with the following *prioritization sequence*, in order to minimize further fragmentation and impacts to GRSG habitat or populations, and to seek greater certainty that project development can move forward expeditiously. Generally, areas open for leasing in the approved Plans will be prioritized as follows:

Prioritization Sequence for Leasing in or near GRSG Habitats

In accordance with the BLM’s discretion in offering lands for leasing, BLM State Offices will use the following prioritization sequence for considering leasing in or near GRSG habitat, while also considering the “Factors to Consider While Evaluating EOIs in Each Category” as described on the following page.

³ For National Forest System Lands, this IM adheres to Section 226 (h) of the MLA, under which “The Secretary of the Interior may not issue any lease on National Forest System Lands reserved from the public domain over the objection of the Secretary of Agriculture, and the 2006 Memorandum of Understanding (MOU) Between US Dept. of Interior BLM and US Dept. of Agriculture Forest Service Concerning Oil and Gas Leasing and Operations, “to insure coordination and consistency of lease stipulations and that the responsible agency heed the development process per the MOU.”

⁴ Although the Lander (Wyoming) ROD and Approved RMP do not include this objective, the procedures in this IM will be followed in the areas covered by that RMP in order to ensure consistency in the BLM’s oil and gas leasing and development activities throughout the GRSG range. The prioritization of leasing and development is an administrative function, not an allocation decision, and so the Lander RMP does not need to be maintained or amended to adopt this approach to leasing and development.

1. Lands outside of GHMAs and PHMAs: BLM State Offices will first consider leasing EOIs for lands outside of PHMAs and GHMAs. These lands should be the first priority for leasing in any given lease sale.
2. Lands within GHMAs: BLM State Offices will consider EOIs for lands within the GHMAs, after considering lands outside of both GHMAs and PHMAs. When considering the GHMA lands for leasing, the BLM State Office will ensure that a decision to lease those lands would conform to the conservation objectives and provisions in the GRSG Plans (e.g., Stipulations).
3. Lands within PHMAs: BLM state offices will consider EOIs for lands within PHMAs after lands outside of GHMAs and PHMAs have been considered, and EOIs for lands within GHMA have been considered. When considering the PHMA lands for leasing, the BLM State Offices will ensure that a decision to lease those lands would conform to the conservation objectives and provisions in the GRSG Plans (e.g., Stipulations) including special consideration of any identified SFAs.

Factors to Consider While Evaluating EOIs in Each Category

In accordance with the BLM's leasing discretion, the BLM will consider individual parcels within each of the categories in accordance with the *Prioritization Sequence* described above, and only thereafter consider, as appropriate, a combination of what applies from the following prioritization factors. These parcel specific factors are not presented in any particular order of importance:

- Parcels immediately adjacent or proximate to existing oil and gas leases and development operations or other land use development should be more appropriate for consideration before parcels that are not near existing operations. This is the most important factor to consider, as the objective is to minimize disturbance footprints and preserve the integrity of habitat for conservation.
- Parcels that are within existing Federal oil and gas units should be more appropriate for consideration than parcels not within existing Federal oil and gas units.
- Parcels in areas with higher potential for development (for example, considering the oil and gas potential maps developed by the BLM for the GRSG Plans) are more appropriate for consideration than parcels with lower potential for development. The Authorized Officer may conclude that an area has "higher potential" based on all pertinent information, and is not limited to the Reasonable Foreseeable Development (RFD) potential maps from Plans analysis.
- Parcels in areas of lower-value sage-grouse habitat or further away from important life-history habitat features (for example, distance from any active sage-grouse leks) are more appropriate for consideration than parcels in higher-value habitat or closer to important life-history habitat features (i.e. lek, nesting, winter range areas). At the time the leasing priority is determined, when leasing within GHMA or PHMA is considered, BLM should consider, first, areas determined to be non-sage-grouse habitat and then consider areas of lower value habitat.

- Parcels within areas having completed field-development Environmental Impact Statements or Master Leasing Plans that allow for adequate site-specific mitigation and are in conformance with the objectives and provisions in the GRSG Plans may be more appropriate for consideration than parcels that have not been evaluated by the BLM in this manner.
- Parcels within areas where law or regulation indicates that offering the lands for leasing is in the government's interest (such as in instances where there is drainage of Federal minerals, 43 CFR § 3162.2-2, or trespass drilling on unleased lands) will generally be considered more appropriate for leasing, but lease terms will include all appropriate conservation objectives and provisions from the GRSG Plans.
- As appropriate⁵, use the BLM's Surface Disturbance Analysis and Reclamation Tracking Tool (SDARTT) to check EOI parcels in PHMA, to ensure that existing surface disturbance does not exceed the disturbance and density caps and that development of valid existing rights (Solid Minerals, ROW) for approved-but-not-yet-constructed surface disturbing activities would not exceed the caps.

BLM state offices will use this *Prioritization Sequence*, these parcel-specific factors, and the BLM's workload capacity and other workload priorities as they determine work Plans for the oil and gas leasing program. If the state office does not offer a specific parcel identified in an EOI at the next regularly scheduled sale the BLM should inform the applicant of the reason the parcel was not included in the sale.

Pending EOIs and Leases Sold But Not Issued

The following addresses the parcels that have been nominated in the past, and leases sold but not yet issued. BLM state offices should consider these parcels, using the *Prioritization Sequence* above, and this additional guidance.

- **Deferred Expressions of Interest:**
For parcels located within identified PHMAs or GHMAs that were identified via EOIs and were deferred during the development of the GRSG Plans, the BLM State Office may decide if the deferred EOI in a PHMA or GHMA would need to be identified again through a new EOI. The BLM State Office will contact the applicant who submitted the EOI to inform them of the *Prioritization Sequence* and to find out if the applicant is still interested in these previously identified tracts. If the BLM receives a new EOI for the parcel, the BLM will inform the applicant that the BLM will consider the parcel using the prioritization factors above.
- **Leases Sold Prior to GRSG Plans – But Not Issued⁶**

⁵ All new leases issued under the GRSG land use plans will have the stipulation for no surface occupancy (NSO) in PHMA (except WY); therefore, this exercise may not be necessary. In WY, leases issued within the PHMA Core habitat will have the controlled surface use (CSU) stipulation WL-4024, but BLM WY may want to use SDARTT to calculate existing and approved disturbance in parcels before they are offered.

⁶ For example, Wyoming has approximately 170,000 acres in this status. Colorado has a few leases that were "sold but not issued." Most states do not have any leases that were "sold but not issued."

This category refers to leases that were sold in previous BLM lease sales, but were not issued. Because all leases issued after the approval of the GRSG Plans must conform to the approved Plans, the BLM will not issue leases sold prior to the approval of the GRSG Plans unless the leases are consistent with the sequential prioritization approach described above and in conformance with the GRSG Plans and with the appropriate stipulations outlined in the GRSG Plans. Consistent with the sequential prioritization approach, the Authorized Officer may issue these leases (in accordance with all laws, regulations, and policies), after a 45-day public notice period declaring the revised stipulations.⁷ If the successful bidder does not consent to the revised lease stipulations, the Authorized Officer will refund the bonus bid, the first year's rental payment, and the administrative fee to the successful bidder, and close the case. Refer to BLM Handbook H-3120-1 (*Competitive Leases*) for additional guidance.

Other Tools for Reducing Impacts to PHMAs and GHMAs

The following provides a number of other tools to reduce impacts to PHMA, including SFAs, and GHMA habitat:

- Mitigation: To encourage leasing and development in the areas with the least GRSG conflicts, and in consideration of the DOI's and the BLM's policies regarding landscape-scale mitigation,⁸ the Authorized Officer should consider whether the mitigation (avoidance, minimization, rectify, reduce, and compensate) will be sufficient to achieve the net conservation gain mitigation standard for any adverse impacts to GRSG habitat, as identified in the GRSG Plans.⁹ One compensatory mitigation tool for achieving the net conservation gain mitigation standard, in addition to other restoration and preservation actions, that BLM might consider using is to request the record title owner(s) of existing Federal oil and gas leases located in SFAs, PHMAs, or other sensitive GRSG habitats to relinquish those leases as an offset to the potential impacts to GRSG and their habitats from activities arising from other implementation decisions or activities on valid existing leases located on the public lands. Lease relinquishment as a compensatory mitigation tool is a form of protection and is generally only appropriate for those leases in priority habitat with high-value GRSG habitat that also has a high potential and likelihood for development. The BLM is working on a manual and handbook on mitigation that are expected to address mitigation, including compensatory mitigation, in more detail.

⁷ 30 U.S.C. § 226 (A) ("Leases shall be issued within 60 days following payment by the successful bidder of the remainder of the bonus bid, if any, and the annual rental for the first lease year.")

⁸ See Department Manual 600 DM 6, "Implementing Mitigation at the Landscape-scale" (October 23, 2015). See also Presidential Memorandum entitled "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment" (November 3, 2015).

⁹ *.....the BLM will require and ensure mitigation that provides a net conservation gain (the actual benefit or gain above baseline conditions) to the species. This would include accounting for any uncertainty associated with the effectiveness of such mitigation in PHMAs and GHMAs (except for the Wyoming, where this requirement only applies in PHMAs). (Rocky Mountain Region ROD, page 1-27; and as described in Wyoming ARMPA, MD GMD 2, page 26). Furthermore, the Wyoming RMP requires a net conservation gain for sage-grouse populations and habitats, consistent with the State of Wyoming Core Area Strategy. (see Wyoming ARMP, page 20.)*

The GRSG Plans also provide guidance on appropriate mitigation. (See Mitigation Appendix in your Plans). BLM state offices will work with WO-310 as relinquishments are implemented until additional guidance is finalized.

- **Lease Suspensions:** The BLM is authorized to suspend all operations and production by direction or consent in the interest of conservation of natural resources. Accordingly, the Authorized Officer may consent to or direct lease suspensions where it is determined to be in the interest of the conservation of GRSG populations and habitats.¹⁰ For example, a lease suspension might be considered if disturbance and density caps have been exceeded within a lease or to allow for the satisfactory restoration of existing surface disturbances within a PHMA before considering new operations in the PHMA that may meet or exceed a surface disturbance limitation under the approved Plans.
- **Lease Reinstatements:** When deciding whether to approve or deny a request for lease reinstatements, the Authorized Officer will consider the *Prioritization sequence*, whether the land is open to leasing under the approved Plans, whether it is in a PHMA or GHMA, and if the existing lease terms will remain in compliance with the conservation objectives and provisions of the GRSG Plans. If a lease reinstatement is approved, the stipulations of the GRSG Plans must be applied. If a lease reinstatement is denied, those lands may or may not be precluded from later consideration for leasing, in accordance with the authorizing officer's discretion to determine which public lands will be offered at a lease sale, but will be subject to the prioritization sequence policy described above.
- In GRSG habitat it is especially important to continue to follow the standard operating procedure in H-3101-7 when inspecting wells and verifying drilling diligence on leases potentially eligible for a lease extension¹¹ before the date of potential lease expiration¹².

¹⁰ See 30 U.S.C. § 209 ("In the event the Secretary of the Interior, in the interest of conservation, shall direct or shall assent to the suspension of operations and production under any lease granted under the terms of this Act . . ."); see also 43 CFR § 3103.4-4(a) ("A suspension of all operations and production may be directed or consented to by the Authorized Officer only in the interest of conservation of natural resources."). Federal courts have recognized that the phrase "in the interest of conservation," as used in Section 39 of the Mineral Leasing Act (30 U.S.C. § 209), includes the prevention of environmental harm. See *Copper Valley Machine Works, Inc. v. Andrus*, 653 F.2d 595, 602 (D.C. Cir. 1981); see also *Hoyl v. Babbitt*, 129 F.3d 1377, 1380 (10th Cir. 1997).

¹¹ Lease extension by drilling is only authorized for actual drilling operations that were commenced prior to and being diligently conducted over the expiration date of the primary term of the lease. See 43 CFR § 3107.1.

¹² (1) review the well drilling program to confirm it is designed to test and produce from at least one potentially productive oil and/or gas formation, (2) conduct a field inspection of the drilling location before the lease expiration date to verify actual drilling, and (3) ensure the well meets the criteria established in H 3107-1.

- Where a lease in PHMA or GHMA has expired because the primary term has elapsed and no drilling has occurred (or where the lease is not held by production¹³), the BLM will not re-offer these parcels, and may only consider offering such lands if and when an EOI is submitted and the BLM determines it is appropriate to lease the lands if located in areas open to leasing under the approved Plans. Future leasing of the lands will be considered under the sequential prioritization approach described above, including the *Factors to be Considered While Evaluating EOIs* and provided that the new stipulations from the GRSG land use Plans are attached to the lease.
- In GRSG habitat, when making a decision to cancel a lease for failure to comply with lease terms, the bond must remain in force and effect until all rents and royalties have been paid and final abandonment of all wells, including reclamation, has been approved. (H3108-1, H-3104 pg107, and 43 CFR § 3100).

Configuration of Quarterly Lease Sales from BLM-Identified Lands and EOIs

BLM state offices will take into account the EOIs, the GRSG plan decisions and goals, this prioritization sequence policy, other resource values, and workload capacity in configuring quarterly lease sales. This approach will allow for quarterly sales consistent with the conservation objectives and provisions in the GRSG Plans.

Required Coordination when Leasing within a PHMA or GHMA is Proposed

Prior to NEPA Comment Period

For each lease sale that includes parcels intersecting PHMAs or GHMAs, State Directors will provide a *Preliminary Lease Sale Summary* to WO-300 (cc WO-310) as soon as is feasible and at least 15 days prior to the date the first NEPA documentation for the lease sale is posted or released for public comment. A template with the information necessary for State Directors to include in the *Preliminary Lease Sale Summary* is included in Attachment 1.

Prior to Holding a Lease Sale

In addition, after any protests are received and as soon as is feasible, but at least 15 days before a lease sale is held, State Directors will provide a briefing memo to the WO-300 (cc WO-310) contact that includes a summary of any lease sale parcel protests related to GRSG (including protests addressing plan conformance and NEPA compliance when related to GRSG decisions, habitats, and populations). A briefing paper template is included in Attachment 2.

B. Development: Sequential Prioritization of Permit Processing for Oil and Gas Development and Operations in Proximity to PHMAs and GHMAs

¹³ Includes primary term leases, as well as, suspension of operations and production on leases with wells capable of production. See 43 CFR § 3103.4-4.

As described above, an objective of this policy is to sequentially prioritize the leasing and development of oil and gas resources on public lands outside of GRSG habitat based on the GRSG Plans' conservation goals to avoid or limit new surface disturbance in Priority Habitat Management Areas (PHMAs) and minimize surface disturbance in General Habitat Management Areas (GHMAs). Similar to the way that leasing is handled above, BLM field offices will process Notices of Staking (NOSs)/Applications for Permit to Drill (APDs) or Sundry Notices that involve ground disturbance (referred to collectively as "permits" in this section) for wells that are proposed to be located outside of GHMAs and PHMAs first, then within GHMAs, then within PHMAs, and lastly, within PHMAs that may contain SFAs.

Prioritization Sequence for Permits for Oil and Gas Development and Operations in or near GRSG Habitats

When processing permits for oil and gas development and operations in or near GRSG habitat, follow this prioritization sequence:

1. Lands outside PHMAs/GHMAs: The BLM will encourage development outside of PHMAs/GHMAs by working with operators to focus their development proposals away from GRSG habitats.
2. Lands in GHMAs: Authorized Officers will use the prioritization sequence to meet the conservation objectives and provisions in the GRSG land use Plans by encouraging development in GHMA before development in PHMA, by taking into consideration the factors and existing prioritizations (as detailed below) GRSG land use Plans when processing permits for well locations.
3. Lands in PHMA: Authorized Officers will use the prioritization sequence to meet the conservation objectives and provisions in the GRSG land use Plans by encouraging development, first outside of GHMA/ PHMA, and then in GHMA, before development in PHMA, while taking into consideration the factors and existing prioritizations (as detailed below) when processing permits for well locations.

Prioritization Factors to Consider (but not limited to and not in any particular order):

- Well locations in an area with existing production facilities and surface disturbance should be more appropriate for consideration before well locations that are not immediately adjacent or proximate to existing operations.
- Well locations within a Federal oil and gas unit should be more appropriate for consideration than well locations not within existing Federal oil and gas units.
- Well locations within areas having completed field-development Environmental Impact Statements or Master Development Plans that allow for adequate site-specific mitigation and conformance with the GRSG land use Plans may be more appropriate for consideration than well locations that have not been evaluated by the BLM in this manner.

- Well locations in areas of lower-value GRSG habitat or distant from important life-history habitat features (for example, distant from any active GRSG leks) may be more appropriate for consideration than well locations in higher-value habitat or closer to important life-history habitat features.
- Well locations anticipated to result in a net conservation gain may be more appropriate for consideration. Approval of a permit may also occur in response to applicable law or regulations (including drainage cases or to ensure that the BLM honors valid existing rights). Conditions of Approval (COAs) attached to the permit should include all appropriate conservation objectives and mitigation requirements, such as required design features (RDF) from the GRSG land use Plans.¹⁴
- As appropriate, use SDARTT to check “project analysis areas”¹⁵ in PHMA and SFA, to ensure that existing surface disturbance does not exceed the disturbance and density caps and that development of valid existing rights (Solid Minerals, Rights-Of-Way, etc.) for approved-but-not-yet-constructed surface disturbing activities would exceed the caps.

Existing Prioritizations:

BLM field offices should integrate the above prioritization sequence in their processing of pending permits as they consider the overall workload to fairly and objectively address their permitting prioritization. Only insofar as they are consistent with the prioritization approach described in this IM, BLM field offices may also take into consideration other prioritization considerations, such as considering permitting on a first-in/first-out basis to the extent possible, unit obligation wells, the efficiency to be gained in processing the easiest to complete first, the operator’s drilling Plans, workload capacities, and other resource values.

Development and Restoration within PHMAs/GHMAs

Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with appropriate stakeholders, including the U.S. Fish and Wildlife Service, relevant State agencies, lessees, operators, or other project proponents to avoid, minimize, and compensate for unavoidable adverse impacts to sage-grouse or its habitat. The BLM will ensure that the best information about the GRSG and its habitat informs and guides development of such Federal leases to the extent compatible with lessees’ rights to drill and produce fluid mineral resource with proper application of stipulations and conditions of approval.

When considering an NOS/APD or Sundry Notice involving ground disturbance activities proposed in PHMA and/or GHMA (even for leases issued prior to finalization of the GRSG land use Plans), the Authorized Officer will consider the BLM’s environmental record of review. See 43 CFR § 3162.5-1(a). The environmental record of review includes appropriate documentation of NEPA compliance, alternatives that would implement the conservation measures described in the GRSG land use Plans, and applicable Best Management Practices (BMP) and Required

¹⁴ Refer to footnote #9.

¹⁵ Methodologies may vary from state to state. For example, Colorado uses Management Zones and Oregon uses Priority Areas for Conservation

Design Features (RDF); consistent with applicable regulations. If the Authorized Officer determines that the potential environmental impacts could be significant, the Authorized Officer will prepare an Environmental Impact Statement. In all cases, as the GRSG Plans decisions acknowledge (see RM ROD at page 2-2, GB ROD at page 2-2), the BLM must honor valid existing rights, such as in cases where the BLM issued a lease prior to the GRSG land use plan with terms and stipulations that may be different from those provided for in the GRSG land use plan. In addition, the BLM also has the authority to apply reasonable conditions of approval. 43 CFR § 3101.1-2.

The Authorized Officer will continue to work with all operators to plug idle wells, timely restore well sites with appropriate GRGS habitat seed mixes, reclaim roads, and enhance habitat (e.g., reduce fragmentation), with a restoration emphasis in GRSG habitat areas to support conservation goals. In addition, the Authorized Officer will be cognizant of sundry notices of operations that may be considered disruptive activities within GRSG habitats.

When the BLM receives an APD involving a well that is within a GRSG habitat area, but on Tribal Trust or allotted lands under BIA jurisdiction, the BLM will coordinate with the BIA and affected tribe(s).

Timeframe: This IM is effective immediately.

Budget Impact: Given the conservation challenges and the land management responsibilities, this policy will result in additional costs for increased planning, coordination, NEPA review, GIS, responding to administrative challenges, and associated program costs. It is anticipated that performance targets/units of accomplishment for the resource programs will adjust to reflect the added complexities and responsibilities. Timelines for wells within GRSG habitat may take longer to permit; however wells outside of habitat will be prioritized for processing.

Background: On September 21, 2015, the Department of the Interior and the BLM approved the GRSG RODs. Concurrently, the BLM amended or revised the Plans in GRSG habitat to provide conservation measures protective of GRSG and their habitats.

Along with other guidance being issued and prepared by the BLM, this IM serves to provide policy direction for the implementation of the GRSG land use Plans. This IM also satisfies the BLM's commitment in the GRSG ROD's to provide policy direction based on the objective of prioritizing oil and gas leasing and development outside of PHMAs and GHMAs. (See, e.g., Rocky Mountain ROD at page 1-40, GB ROD at page 1-41, "...additional guidance will be provided to clarify how the BLM will implement the objective of prioritizing future oil and gas leasing and development outside of GRSG habitat.") The final Approved Plans also included a decision that provided:

Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMAs and GHMAs, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in

the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).¹⁶

This IM and its attachments provide guidance to BLM Authorized Officers and field personnel to facilitate consistent implementation of these Plans decisions.

Manual/Handbook Sections Affected: None.

Coordination: This IM was coordinated with the U.S. Department of the Interior, Office of the Solicitor; BLM State Offices; the Renewable Resources and Planning Directorate; and the Energy, Minerals and Realty Management Directorate.

Contact: If there are any questions concerning this IM, please contact Michael D. Nedd, Assistant Director, Energy, Minerals and Realty Management (WO-300), at 202-208-4201. Your staff may also contact Steven Wells, Division Chief, Division of Fluid Minerals (WO-310), at 202-912-7143 or s1wells@blm.gov.

2 Attachments

- 1- *Preliminary Lease Sale Summary Template* (1p)
- 2- *Lease Sale in Greater Sage-Grouse Habitats Briefing Paper Template* (1p)

¹⁶ For example, see the BLM-Utah's Approved RMP Amendment -- Attachment 4 to the GB ROD at page 2-25, Objectives MR-1 and MR-2. Similar language can be found in each of the RMPs.

Attachment 1 – *Preliminary Lease Sale Summary* Template - Prior to NEPA Comment Period

The Preliminary Lease Sale Summary will include:

- ✓ State Office/planning area(s) and date of lease sale.
- ✓ Anticipated date that the NEPA documentation (EA or DNA) will be posted for public review.
- ✓ Total number and acreages of parcels considered in the lease sale
- ✓ Total number and acreages of parcels intersecting Greater Sage-Grouse habitat, General Habitat Management Areas (GHMAs), and Priority Habitat Management Areas (PHMAs) in the lease sale
- ✓ Anticipated date that the Notice of Competitive Lease Sale will be published and posted for public review
- ✓ Date the protest period ends
- ✓ Map(s) illustrating the location of all parcels, with the following overlays:
 - GHMAs and PHMAs
 - Pertinent surface disturbance and reclamation data as available.
 - If available, existing Federal oil and gas leases (differentiating those held by production) and wells. If available, please include information related to non-BLM administered oil and gas leases and wells.
 - For Federal wells, which can be numerous, we are requesting locations of active oil and gas wells that have been constructed or spud; this would not include plugged and abandoned wells.
 - Federal oil and gas unit boundaries
 - Field-development Environmental Impact Statement boundaries
 - Master Leasing Plan boundaries
 - Oil and gas development potential maps
 - Locations of known sage-grouse leks protective buffers
 - State Offices should use scale(s) that will allow the maps to be viewed and understood.

Attachment 2 – Lease Sale Protests in Greater Sage-Grouse Habitats Briefing Paper Template

**BRIEFING MEMORANDUM FOR THE ASSISTANT DIRECTOR – ENERGY,
MINERALS, AND REALTY MANAGEMENT**

DATE: [Date memo submitted to AD300 and AD310]

FROM: Applicable State Director [Name, title, and applicable state]

SUBJECT: [Insert state] State Office [Insert scheduled date of sale] Oil and Gas Lease Sale
Statement of purpose: Inform AD300 and AD310 about the upcoming oil and gas lease sale in relation to protests that involve Greater Sage-Grouse and Greater Sage-Grouse habitat.

BACKGROUND

Summarize key information from the *Preliminary Lease Sale Summary*. For example:
On September 28, 2015, the XXX State Office posted the environmental assessment (EA) for the February 11, 2016 oil and gas lease sale for public review and comment. The EA analyzed the offering of up to 50 parcels totaling approximately 112,500 acres as part of the sale. Of this, 20 parcels totaling approximately 45,000 acres intersect Greater Sage-Grouse General Habitat Management Areas and 10 parcels totaling approximately 22,500 acres intersect Greater Sage-Grouse Priority Habitat Management Areas. Parcels that will be offered at the sale fall within the X, Y, and Z Plans planning areas for which applicable oil and gas lease stipulations from these Plans were attached to the appropriate parcels. The protest period for the lease sale ended on December 28, 2015.

DISCUSSION

In the briefing memo, please identify potential sage-grouse related impacts and controversies associated with the parcels listed in the Sale Notice. The discussion should address the following:

- a) Has the proposed sale generated any controversy with the State/Governor or the public?
- b) Provide a hyperlink to the BLM external website with the BLM's NEPA compliance documentation for the lease sale (EA or DNA).
- c) How many parcels (and acres) have been protested because of sage-grouse issues?
- d) Who filed these protests?
- e) What are the protester(s) main arguments related to sage-grouse issues?

NEXT STEPS

Describe how the State Office anticipates answering the protests.

ATTACHMENTS

N/A. However, please feel free to attach additional maps (other than what has already been provided through the *Preliminary Lease Sale Summary*).



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240
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In Reply Refer To:
4130 (220) P

SEP 1 2016

Instruction Memorandum No. 2016-142
Expires: 09/30/2019

To: State Directors (California, Colorado, Idaho, Montana/Dakotas, Nevada, Oregon/Washington, Utah and Wyoming), and Center Directors

From: Deputy Director *Steven A. Ellis*

Subject: Incorporating Thresholds and Responses into Grazing Permits/Leases

Program Area: Rangeland Management

Purpose: This Instruction Memorandum (IM) provides guidance for incorporating and analyzing thresholds and responses, as appropriate, into terms and conditions of grazing permits and the associated National Environmental Policy Act (NEPA) analysis within designated Greater Sage-Grouse (GRSG) Habitat as described in the Records of Decision for the Approved Resource Management Plan Amendments for the Great Basin and Rocky Mountain GRSG Regions and nine Approved Resource Management Plans in the Rocky Mountain GRSG Region (collectively referred to as the GRSG Plans).

Policy/Action:

Grazing Authorization (Permit/Lease) Terms and Conditions

Consistent with the GRSG Plans, when a Field Office (FO) fully processes¹ a grazing permit/lease that includes lands within Sagebrush Focal Areas (SFA) or Priority Habitat Management Areas (PHMA) and prepares an Environmental Assessment (EA) or Environmental Impact Statement (EIS), that NEPA analysis will include at least one alternative that analyzes incorporation of thresholds and defined responses into the terms and conditions of the grazing permit or lease.

When analyzed, FOs will incorporate thresholds and defined responses into grazing permits in accordance with the policy set forth below. Inclusion of defined management responses in

¹ A fully processed grazing permit is a grazing permit that has been issued in accordance with all applicable laws, regulation, and policy including the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and decision processes provided in 43 CFR 4160.

permits will allow more timely adjustments to livestock grazing as those adjustments (responses) will have already been subjected to NEPA analysis and will have been incorporated after a full administrative review. FOs will continue to coordinate with permittees, state agencies having lands or managing resources within the area, tribes and other appropriate federal agencies, and interested publics (e.g. local governments) during the review and processing of grazing permits including developing thresholds and responses.

Use of GRSG Habitat Objectives

The GRSG Plans provide a Habitat Objectives table that contains a suite of GRSG seasonal habitat indicators and associated desired conditions (or habitat objectives) that apply to seasonal use areas within all GRSG habitat designations (i.e. SFAs, PHMAs, General Habitat Management Areas (GHMAs), and Important Habitat Management Areas (IHMAs) (Idaho)). The indicators and desired conditions in the Habitat Objectives table, which will be adjusted, as appropriate, to take into account local site potential, will guide the development of thresholds identified for seasonal habitats found in grazing allotments. Ecological site potential will be taken into account when assessing and evaluating monitoring data such as when analyzing sampling locations and interpreting the habitat measures during sage-grouse habitat assessments. In assessing habitat condition, no one single habitat indicator value alone will define whether the suite of habitat objectives or land health standards is or is not met. Instead, the weight of evidence from all indicators within that seasonal habitat must be considered when assessing the seasonal habitat suitability under the Habitat Assessment Framework (HAF)² and monitoring of the sage-grouse habitat objectives and land health standards.

Incorporating Thresholds and Responses

When fully processing a grazing permit/lease that includes lands within SFA or PHMA, FOs will analyze the incorporation of thresholds/responses in at least one alternative in the NEPA analysis (EA/EIS). Thresholds and responses will also be developed for at least one alternative when preparing an EA/EIS for adjustments to permits/leases due to events affecting allotments in SFA and PHMA such as wildland fire or drought. In determining when to select for implementation of an alternative that incorporates thresholds and responses into permit terms and conditions, the highest consideration will be in SFAs and PHMAs when: 1) a Land Health Evaluation (LHE) incorporates the results of a Sage-Grouse Habitat Assessment; and 2) the results of the Habitat Assessment indicates that habitat is marginal or unsuitable; and 3) the Authorized Officer (AO) determines that current livestock grazing is a significant causal factor for not meeting standards relative to GRSG habitat.³ Thresholds and responses may not need to be included in a grazing permit or lease within an allotment in SFA or PHMA if the allotment meets or makes significant progress towards meeting all land health standards relative to GRSG habitat or changes to grazing management would not improve habitat condition. Where an AO selects an alternative that does not include thresholds and defined responses, the AO will include in the grazing decision rationale why the selected management will achieve the desired effect, why

² A Habitat Assessment may be supplemented with other measurements and/ or modeling information.

³ Refer to the IM "Setting Priorities for Review and Processing of Grazing Authorizations in Greater Sage-Grouse Habitat" for guidance on prioritizing the review and processing of grazing permits/leases in GRSG habitat.

thresholds/responses do not need to be included in the grazing permit/lease, and what indicators and metric(s) will be used to evaluate and document achievement of land health.

As described above, the GRSG plans identify sage-grouse seasonal habitat indicators and associated desired conditions or objectives. Thresholds will be developed at the site specific or allotment level and identified based on the GRSG habitat objectives, land health standards (LHSs) (43 CFR 4180.2), ecological site potential, and current condition.⁴ FOs will identify standards. Indicator(s) will identify one or more grazing use thresholds that, if exceeded, would not allow for meeting, or making progress towards meeting habitat objectives. The response(s) will identify what changes in livestock grazing management could occur if a threshold is exceeded. Percent utilization, bank alteration limits, and/or browse utilization limits are examples of threshold measurements that, if exceeded, would result in the AO applying one or several responsive management actions.

The AO may select an alternative within an EA/EIS that includes thresholds and responses for an allotment that currently meets land health standards for GRSG for other reasons. For example, FOs may want to incorporate thresholds and responses if recent changes in grazing management have been implemented or to ensure success of vegetation treatments.

FOs will use the Habitat Assessment Summary Report associated with an allotment or group of allotments within the habitat assessment area to inform the Land Health Assessments, Evaluations and Determinations⁵ in accordance with the Sage-Grouse Habitat Assessment Policy⁶. To be consistent with the GRSG Plans, FOs will need to review existing data, or collect additional data, to complete habitat suitability ratings, and update existing Land Health Evaluations that were completed prior to the completion of the GRSG Plans in September 2015, for allotments where a grazing permit or lease is being processed but BLM has not issued a grazing permit or lease under 43 CFR 4160.

⁴ When existing Ecological Site Descriptions (ESD) have not been developed, are too general, or are not correct to serve adequately as benchmarks, do the following in order as numbered: 1) check with the Natural Resource Conservation Service (NRCS) to see if there are provisional ESDs; 2) consult with regional soils experts to identify if external ecological sites are similar enough to use for management decisions; or 3) use an interdisciplinary team to develop a site reference sheet for determining current site state, potential future states (desired and undesired). Based on this input an AO can select a management course to reach one of those desired future states, with sufficient and appropriate monitoring to track site vegetative cover trajectories. (Refer to Section 6.3 in the GRSG Implementation Guide)

⁵ Land Health Assessments and Evaluations assess conditions relative to the land health standards and guidelines that apply to each parcel of BLM-managed land, evaluate whether each applicable standard is being met, or whether significant progress is being made towards meeting each standard. When one or more standards are not being met, the BLM completes a Determination to identify the causal factor(s) in failure to meet the standard(s). Refer to Handbook 4180-1 Rangeland Health Standards (Rel 4-107).

⁶ Refer to the Gunnison and Greater Sage-Grouse Habitat Assessment Policy for guidance on applying GRSG habitat objectives and the Habitat Assessment Framework (HAF) to assess Greater Sage-Grouse habitat. FOs will use the Habitat Assessment Summary Report to inform the Land Health Assessments and Land Health Standard(s) as it pertains to GRSG.

NEPA Review and Alternative Development

When fully processing grazing permits/leases, the FOs will complete the appropriate level of NEPA analyses on an allotment or multiple allotment basis. In most instances, FOs will prepare an EA; however, there may be instances where preparation of an EIS is necessary, as described in the NEPA Handbook (H-1790-1).

Thresholds and responses will be developed and identified for at least one of the BLM-developed action alternatives in the NEPA analysis in SFA and PHMA, although they may be developed for allotments containing other GRSG habitat designations. For any alternative that includes thresholds and responses, multiple responses should be evaluated in the NEPA document that will allow the BLM and permittees a suite of options for responding more quickly when exceeding thresholds or responding to habitat requirement needs. The analysis should also identify the location, timing, frequency and methodologies used for monitoring the thresholds. Monitoring results will be used to determine if alternative management responses are required.

If thresholds and responses analyzed in a NEPA document are incorporated into the grazing decision and grazing permit as terms and conditions, the following criteria will help guide whether the selected response(s) can be implemented immediately or will require an additional decision:

- If the response(s) are within the existing terms and conditions of a grazing permit, the response can be implemented immediately without an additional decision. If the AO wants to be able to implement responses to thresholds during the life of a given grazing permit/lease without issuing a new decision, he/she should make that intent clear in both the NEPA document and final grazing decision.
- If the response requires a modification to a grazing permit, an additional grazing decision (either Proposed/Final or Full Force and Effect) will need to be issued.

Incorporation of management responses that were not included as terms and conditions in a permit is possible where:

- A management response was analyzed in another alternative in the NEPA document for the authorization, but was not included in the original decision, then the FOs will follow the decision processes provided in 43 CFR 4160. The grazing decision will identify the response described in one of the other NEPA-compliant alternatives. A Determination of NEPA Adequacy should be prepared when selecting a previously analyzed approach for the authorization and issuing a proposed/final grazing decision.
- Monitoring determines that a different management response is needed, but the response was not analyzed in the NEPA analysis for the authorization, then the FOs should implement interim measures that are within the terms and conditions of the existing permit (and covered in an existing NEPA analysis) to minimize impacts to GRSG habitat. FOs must expedite further NEPA analysis to modify the permit and implement the appropriate management response.

Using a Categorical Exclusion

The AO may use a categorical exclusion (CX) to satisfy NEPA requirements before issuing a grazing permit in accordance with Section 402(h)(1) of FLPMA, as amended by Public Law No. 113-291 where current grazing management has led to conditions which meet land health standards. Washington Office IM 2015-121, Implementing Amended Section 402(h) (1) of Federal Land Policy and Management Act - Using a Categorical Exclusion, provides guidance for issuing a grazing permit or lease using this CX authority including requiring a review of the 12 extraordinary circumstances listed in 43 CFR 46.215. The FOs are also required to document the rationale as to why the CX applies.

Issuing Permits/Leases Under Section 402(c) (2) of FLPMA

When lower-priority permits, as described in the IM on prioritizing the review and processing of grazing permits/leases in GRSG habitat, expire, they will be reissued with the same terms and conditions and operate under authority of Section 402(c) (2) of FLPMA, as amended by Public Law No. 113-291,⁷ until they can be fully processed.

Timeframe: This IM is effective immediately.

Manual/Handbook Sections Affected: Handbook 4180-1 Rangeland Health Standards (Rel 4-107), and Authorizing Grazing Use Handbook 4130-1, rel. 4-75.

Budget Impact: Implementing the provision for incorporating thresholds and responses into the NEPA analysis for grazing permits will require the BLM to: (1) collect and/or gather data at multiple scales; (2) complete the Habitat Assessments; (3) develop appropriate thresholds and responses; (4) coordinate with permittees, state agencies, interested public, local governments, etc.; and (5) analyze thresholds/responses in the associated NEPA document. Analyzing and selecting management thresholds and responses under NEPA allow the BLM to make adjustments to livestock grazing to ensure progress toward meeting GRSG Habitat Objectives without necessarily undertaking multiple grazing program decisions with multiple NEPA analysis. Issuing grazing decisions increases the BLM's workload associated with grazing management. Additional funding and capacity will be required for monitoring and compliance. While the BLM has requested additional funds to implement the GRSG Plans, the FOs will focus resources to the highest value habitat areas, which will require deferring work such as permit processing and developing range improvements in lower priority areas.

Background: The BLM initiated the National Greater Sage-Grouse Planning Strategy in 2011 in response to the U.S. Fish and Wildlife Service's (FWS) March 2010 "warranted, but precluded" Endangered Species Act (ESA) listing petition decision. The BLM, in coordination with the U.S. Department of Agriculture, Forest Service, developed a targeted, multi-tiered, coordinated, collaborative landscape-level management strategy, based on the best available science, which offers the highest level of protection for GRSG in the most important habitat

⁷ Under 43 U.S.C. 1752(c)(2), the BLM shall replace permits or leases that have expired or have been terminated due to preference transfer and have not been fully processed by a new permit or lease that contains the same terms and conditions of the expired permit or lease pending their full processing.

areas. The Rocky Mountain Region Greater Sage-Grouse ROD approved a total of eight Resource Management Plan (RMP) revisions and four RMP amendments. The Great Basin Region Greater Sage-Grouse ROD approved four RMP amendments. These RODs and Approved Resource Management Plans and Amendments were signed on September 21, 2015.

Coordination: This IM was coordinated with the Division of Decision Support, Planning and NEPA, Division of Fish and Wildlife Conservation, Solicitor's Office and State Directors within GRSG habitat.

Contact: If you have any questions regarding these matters, please contact Kimberly Hackett, Senior Natural Resource Specialist, Division of Forest, Rangeland, Riparian and Plant Conservation (WO-220) at 202-912-7216 or by email at khackett@blm.gov.



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Instruction Memorandum No. 2016-141
Expires: 09/30/2019

To: State Directors (California, Colorado, Idaho, Montana/Dakotas, Nevada, Oregon/Washington, Utah, and Wyoming), and Center Directors

From: Deputy Director *Steven A. Ellis*

Subject: Setting Priorities for Review and Processing of Grazing Authorizations in Greater Sage-Grouse Habitat
DD: February 1, 2017

Program Area: Rangeland Management, Wildlife

Purpose: This Instruction Memorandum (IM) provides guidance for prioritizing the review and processing of grazing permits and leases (permits) in Greater Sage-Grouse (GRSG) habitat as described in the Records of Decision for the Approved Resource Management Plan Amendments for the Great Basin and Rocky Mountain GRSG Regions and nine Approved Resource Management Plans in the Rocky Mountain GRSG Region (collectively referred to as the GRSG Plans). This IM also provides guidance on prioritizing monitoring for compliance with permit terms and conditions, and monitoring maintenance of, or progress toward meeting, land health standards (LHS) and GRSG habitat objectives.

Policy/Action: Consistent with the GRSG Plans, field offices will prioritize the review and processing of grazing permits for allotments in GRSG habitat, including monitoring compliance with terms and conditions in grazing permits, and monitoring conditions that indicate maintenance or progress toward meeting land health standards and GRSG habitat objectives. The purpose for setting priorities is to focus management activities in areas with the highest habitat value for GRSG, where allotments should be meeting or making progress towards achieving LHS and GRSG habitat objectives. The decision to prioritize in this way does not indicate that grazing is more of a management concern than other uses of the public lands, or that grazing is an incompatible use in any given area, but rather reflects a decision to prioritize limited resources to ensure grazing is properly managed in those areas most important to the Greater Sage-Grouse. If the BLM finds that relevant GRSG habitat objectives are not being met because of improper grazing, then the BLM will work with the permittees and other stakeholders to ensure progress toward meeting them.

Setting Priorities for Reviewing and Processing Grazing Permits

The GRSG Plans and the policy in this IM, supersedes previous permit processing priority setting policy in states with sage-grouse habitat.

Generally, the highest priority areas for completing permit processing work will be allotments that are in Sagebrush Focal Areas (SFA) or that substantially overlap with SFAs, followed by GRSG Priority Habitat Management Areas (PHMA) outside of the SFAs, Important Habitat Management Areas (IHMA, Idaho only), and General Habitat Management Areas (GHMA). Allotments within Other Habitat Management Areas (OHMA, Nevada and Northeast California only) are the last GRSG habitat areas in priority for completing permit review and processing. Priorities should be reassessed in allotments where adaptive management triggers provided in the applicable GRSG Plan have been exceeded and indicate areas of habitat associated with the triggers should be of greater concern.

Within each habitat management category (i.e., SFA, PHMA, IHMA, GHMA, OHMA), recently processed permits (e.g., within the last three to five years) meeting land health standards would not be as high a priority for review or processing as older processed permits (e.g., five to ten years ago), unless resource conditions change or the permittee requests a change in grazing management.

Several factors should be considered and will influence the priority ranking of any given allotment, particularly where land health status has not been evaluated or multiscale GRSG habitat assessments are incomplete. Allotments in SFA without a completed land health evaluation(s) are the highest priority, followed by allotments in SFAs with completed evaluations indicating a need for a change to grazing management. Allotments in SFAs and PHMAs with threatened or endangered (T&E) or BLM sensitive species, in addition to GRSG, will also be in the highest priority group for evaluating land health and processing grazing permits. Other allotments in PHMAs will be the next priority for processing grazing permits.

Grazing permits for allotments outside of GRSG habitat will generally be lower priority for review and processing. However, some exceptions may occur where areas outside of sage-grouse habitat have important resource concerns such as T&E species habitat, degraded resource conditions, or other legal obligations.

Priority status of an area may change based on any number of factors. For example, a small, isolated parcel of BLM land within an SFA surrounded by a large area over which BLM has no management control (e.g., private land) may initially be listed as high priority due to the SFA, but be placed in a lower priority category due to the limited BLM management control. On the other hand, areas outside of SFAs or PHMAs may be higher priority if there are important resource conflicts, T&E species habitat, degraded resource conditions, or if current livestock grazing management has been identified as a significant causal factor for not meeting land health standards.

To facilitate reviewing and processing grazing permits, BLM field offices will develop an allotment priority list based on this IM and considering the criteria listed below. The list will identify the grazing authorizations pertinent to those allotments in order to simplify identifying which grazing authorizations will be reviewed and in which order. The list will include all

allotments and lands administered for grazing by the field office, even if some land is located in another state. A spreadsheet template is provided as Attachment 1 *Priority List for Grazing Allotments and Permits* for field office use. The field office is responsible for updating the spreadsheet when allotment conditions or resource uses change, or when preference is transferred. The initial spreadsheet is due February 1, 2017 and is to be updated by March 1 annually thereafter.

In addition to being located in SFAs, PHMAs, IHMAs (Idaho only), GHMAs, or OHMA (Nevada and Northeast California only), the following criteria are to be considered when identifying priority areas for evaluation, permit processing and monitoring. These criteria are not listed in order of importance and should be considered where applicable. It should be noted that the list below is not exclusive, additional local issues may also be considered when setting priorities. Identify and document additional criteria considered by your office on the *Priority List for Grazing Allotments and Permits* (Attachment 1).

In GRSG habitat the prioritization process should also consider:

- Allotments containing large, contiguous areas of sagebrush cover.
- Allotments where GRSG Plan adaptive management triggers have been exceeded.
- Value or importance of the area to provide connectivity between seasonal habitats or PHMA.
- Areas where modifications to grazing management will facilitate implementation of vegetation treatments to make progress towards meeting habitat objectives.
- Any additional relevant criteria identified in the pertinent GRSG Plan.
- Consideration of other resources present, such as T&E or special status species, as well as other resources such as habitat management areas, Areas of Critical Environmental Concern, and other designated lands (e.g., National Conservation Lands, wild horse herd management area, etc.).
- Areas where there is preliminary information to indicate resource issues (e.g., riparian condition) or likelihood of areas not meeting standards, but that have not been evaluated.
- Existing land health assessments and Habitat Assessment Summary Reports in GRSG habitat to the extent they help identify whether or not GRSG habitat objectives from the applicable GRSG Plan are being met.
- Areas with declining sage-grouse populations.
- Areas where known threats are impacting sage-grouse habitat availability (e.g., cheatgrass invasion).
- Areas not meeting Land Health Standards
- Condition of riparian areas, including wet meadows.
- Areas that have never been assessed for meeting habitat objectives, and land health standards.
- The need to respond to urgent concerns (e.g., fire).
- Areas identified as important through application of the Fire and Invasives Assessment Tool (FIAT) or Sagebrush Management Resilience and Resistance Tool (SMRRT).
- Potential for partnerships:
 - Cooperative or coordinated management with adjacent land owners/permittees may offer opportunities for broader landscape habitat management

- Permittees have already entered into Candidate Conservation Agreements (CCA's) or Candidate Conservation Agreements with Assurances (CCAA's)
- Areas identified as potential mitigation sites.
- Applicable legal requirements (e.g., court orders or statutory requirements).

Preparing for Permit Review and Processing

Following identification of priority areas for processing permits, the BLM should ensure there are complete land health assessments to be included in the review and processing of grazing permits. In addition to local information, use landscape scale information (e.g., FIAT, the BLM Rapid Eco-regional Assessment (REA), Habitat Assessment Summary Reports) where available to inform your priority setting process. The information in these tools can best be used to identify general conditions and other program priorities, as well as risks and potential opportunities for integrated management at the landscape scale.

Grazing permit review and processing will include ensuring that land health assessments and evaluations are completed and up-to-date. This may require updating older evaluations as needed to include recent monitoring or GRSG habitat assessment information or by completing a new land health assessment. An update may be particularly relevant if an event such as a fire or change in management has occurred since the last evaluation report.

Consultation and Coordination

As required in Title 43 Code of Federal Regulations (CFR) 4110.3-1(c); 4110.3-3(a); 4110.3-3(b); 4120.2(c) and (e); 4130.2(b) and 4130.6-2¹, field offices will consult and coordinate with grazing permit holders, interested public, state agencies, tribes and other appropriate federal agencies when gathering data to compare current conditions to land health standards and objectives; developing alternatives for NEPA analysis, particularly when considering adjustments in authorized use; and developing a monitoring plan, particularly if other parties will be collecting data to determine the effectiveness of any changes in management. In addition to the consultation and coordination with the entities required by regulation, field offices will also include relevant federal and state agencies (e.g., FWS and state fish and wildlife agency) and local government in the process.

Setting Priorities for Effectiveness Monitoring

Field offices will be responsible for allotment monitoring to determine whether management is meeting or making progress towards meeting habitat objectives, land health standards, and other land use plan objectives. Frequency of monitoring will be influenced by field office capacity and should be based upon the level of resource concerns and uncertainties associated with each allotment or grazing permit/lease. For example, after issuing a new fully processed grazing permit, it may be appropriate to monitor an allotment more frequently in the first 2 to 3 years of implementing a new grazing management system, while less frequent monitoring would be needed where a satisfactory management system has been in place for several years.

¹ All citations using 43 CFR Part 4100 refer to the version of the grazing regulations published in the October 1, 2005, edition of the Code of Federal Regulations.

Setting Priorities for Compliance Monitoring

Monitoring compliance with terms and conditions of grazing permits (use supervision) is based primarily on any recent history of non-compliance, local knowledge of existing resource use conflicts, and random selection by the Rangeland Administration System (RAS)². Monitoring compliance with terms and conditions of grazing permits in allotments within SFAs, particularly those with lotic and lentic riparian areas will be a high priority. Monitoring priority should be placed on allotments where management thresholds and responses have been incorporated into grazing permits/leases. Within each habitat category, monitoring of grazing use and compliance with permits and management plans should be prioritized in areas where livestock use has the potential to negatively affect seasonal sage-grouse habitats. For instance, summer grazing in areas with unprotected lotic and lentic riparian areas, including wet meadows, should be prioritized to ensure that unacceptable impacts to these important sage-grouse brood rearing areas are not occurring. Similarly, monitoring spring grazing in breeding and nesting habitat should be prioritized to ensure that adequate residual herbaceous vegetation is left to provide for concealment throughout the nesting period, as defined by seasonal habitat objectives listed in each GRSG Plan.

Timeframe: This policy is effective immediately.

Budget Impact: There is substantial new work involved with completing multiscale GRSG habitat assessments, increased consultation and coordination with permittees and interested parties during NEPA alternative development, increased monitoring of compliance with new terms and conditions in permits, and monitoring effectiveness of grazing management in sage-grouse habitat. The emphasis on completing GRSG habitat assessments and focusing on gathering data and processing permits in GRSG habitat will affect the BLM's ability to process and issue permits in lower priority areas. Training is likely to be an additional expense to gather monitoring data. Contracting to meet the additional workload also has the potential to substantially impact the budget.

Background: The BLM initiated the National Greater Sage-Grouse Conservation Strategy in response to the U.S. Fish and Wildlife Service's (FWS) March 2010 "warranted, but precluded" Endangered Species Act (ESA) listing petition decision. The BLM, in coordination with the U.S. Department of Agriculture Forest Service, developed a targeted, multi-tiered, coordinated, collaborative landscape-level management strategy, based on the best available science, which offers the highest level of protection for GRSG in the most important habitat areas. The Rocky Mountain Region Greater Sage-Grouse Record of Decision (ROD) approved a total of eight Resource Management Plan (RMP) revisions and four RMP amendments. The Great Basin Region Greater Sage-Grouse ROD approved four RMP amendments. These RODs and Approved Resource Management Plans and Amendments were signed on September 21, 2015. The targeted protections afforded in these plans not only protect the GRSG and its habitat, but

² The Rangeland Administration System (RAS) maintains electronic files about allotments, authorizations, and grazing bill history and serves as an electronic calendar for issuance of approximately 18,000 applications and 2,400 grazing authorizations per year.

also over 350 wildlife species associated with the sagebrush-steppe ecosystem, which is widely recognized as one of the most imperiled of its kind in North America.

Manual/Handbook Sections Affected: Manual Section 4100 Grazing Administration (Rel. 4-109) in regards to setting priorities; Handbook 4130-1 Authorizing Grazing Use (Rel. 4-75) in regards to setting priorities, completing environmental assessments, reviewing and modifying grazing authorizations; and Handbook 4180-1 Rangeland Health Standards (Rel. 4-107) in regards to criteria for selecting assessment and evaluation areas, and prioritizing assessment and evaluation areas.

Coordination: This IM was prepared in coordination with the BLM Division of Fish and Wildlife Conservation, and the Solicitor's Office.

Contacts: Richard Mayberry, by telephone at 202-912-7229, by email at rmayberry@blm.gov, or Kimberly Hackett, by telephone at 202-912-7216, by email at khackett@blm.gov, both Rangeland Management Specialists in the Washington Office Division of Forest, Rangeland, Riparian, and Plant Conservation (WO-220).

Attachment

1- Priority List for Grazing Allotments and Permits (1p)



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240
<http://www.blm.gov>



SEP 1 2016

In Reply Refer To:
1601(210) P

Instruction Memorandum No. 2016-140
Expires: 09/30/2019

To: State Directors (California, Colorado, Idaho, Montana/Dakotas, Nevada, Oregon/Washington, Utah, and Wyoming), and Center Directors

From: Deputy Director *Steven F. Allen*

Subject: Process for Assessing, Coordinating, and Implementing Greater Sage-Grouse Land Use Plan Adaptive Management Hard and Soft Triggers

DD: February 1 of each year

Program Areas: Resources and Planning, Minerals and Realty Management, and Communications

Purpose: This Instruction Memorandum (IM) directs the implementation of the land use plan adaptive management process to evaluate and apply hard and soft triggers and responses, as detailed in the Greater Sage-Grouse (GRSG) Approved Resource Management Plans and Amendments (GRSG Plans), Great Basin and Rocky Mountain GRSG Regional Records of Decision (ROD) (September 21, 2015).

Policy/Action: The GRSG Plans state that specific hard and soft trigger data (refer to the Adaptive Management Plan within each GRSG Plan) will be analyzed in accordance with the GRSG Plans, as soon as it becomes available after the signing of the ROD and then, at a minimum, analyzed annually thereafter.

In the event of a significant habitat or population loss due to disasters such as wildfire, the loss data should be analyzed as soon as possible after the event occurs. Each Bureau of Land Management (BLM) State Office will evaluate its GRSG adaptive management triggers in accordance with the applicable land use plan, including the appropriate coordination as described in that applicable land use plan, as soon as possible. In addition, the following steps will provide a framework and timeline to support a coordinated evaluation and notification process across the BLM.

Step 1 - Analysis: Bureau of Land Management (BLM) State Offices, in coordination with partners (as described in the GRSG Plans), will use the processes and formulas outlined in the applicable GRSG Plan to evaluate population and habitat data to determine if the GRSG Plan's adaptive management soft and hard triggers have been exceeded. This step would occur prior to the end of each calendar year (December 31) and after such time that habitat data and population data from the state is available as set forth in the Greater Sage-Grouse Population Monitoring Memorandum of Understanding (MOU) between the Western Association of Fish and Wildlife Agencies (WAFWA and USDOI/BLM, 2015). In the event of a catastrophic loss of population or habitat (e.g., wildfire) that is likely to exceed a hard trigger, the BLM will analyze the data as soon as practical and at the latest by the end of the calendar year (December 31). Coordination among technical specialists from appropriate state and federal agencies may be necessary to validate the analysis based on the process outlined in the applicable GRSG Plan. BLM, in consultation with federal, state, county or tribal governments, where appropriate, will make a finding that a trigger (both hard and soft) has or has not been tripped before proceeding to Step 2. For triggers that include multi-year trends, such as population trends, the BLM state offices should use the most recent available data as the end point for the range, going back the necessary number of years, unless otherwise specified in the GRSG Plan. For example, for initial evaluation in 2016, if there is a 5-year population trend trigger, analyze 2011-2015 data.

Where the state office has information that indicates that a hard or soft trigger may have been exceeded, it will immediately notify district and field offices as well as adjacent state, district and field offices. Affected offices should consider whether approval of pending authorizations within the affected adaptive management response area would exacerbate the trigger or would otherwise be inconsistent with the trigger responses set forth in the applicable GRSG Plan. Once a finding has been made that a trigger has been exceeded, the responses will be implemented as set forth in the applicable GRSG Plan and Steps 2 through 5 will be followed.

Step 2 - BLM Washington Office Notification: State Directors will provide a report summarizing the results of the analysis conducted in Step 1 to the Assistant Directors for Resources and Planning (AD-200), Minerals and Realty (AD-300) and Fire and Aviation (FA-100) by February 1 of the following year. Specifically, this report will identify whether soft and/or hard triggers were exceeded and, if any triggers were exceeded, which soft and/or hard triggers have been exceeded, the areas where this has occurred, the appropriate hard trigger responses if a hard trigger was exceeded (as outlined in the applicable GRSG Plan), and a summary of the process to conduct the causal factor analysis where such an analysis is required.

Step 3 - Federal, State, County and Tribal Partners Notification: Within two weeks of completing Step 2, State Offices will notify Federal, State, County, and Tribal partners of the results from the analysis conducted in Step 1 (recognizing that some of these partners may have been involved during Step 1). Appropriate regional coordination may be initiated at this step to discuss responses and timelines.

Step 4 - Field and District Office Outreach and Public Notification:

- a. **Field/District Outreach:** Each State Director will issue guidance to the Field/District Managers regarding the soft and/or hard trigger(s) that have been exceeded and the appropriate responses (as outlined in the applicable GRSG Plan).

- b. Public Notification: Coinciding with the release of the guidance to the field/district, the BLM State Office will notify the public through a news release regarding any soft and/or hard trigger(s) that has been exceeded and the appropriate responses, if known, that will be implemented (as outlined in the applicable GRSG Plan).
- c. Completion of this step would occur at some point after Step 3 and far enough in advance of Step 5 (typically by May 1) to provide the necessary information for that news release.

Step 5 - Washington Office Press Release: By June 1, AD-200 will publish an annual range-wide adaptive management summary through a news release.

Timeframe: This Instruction Memorandum (IM) is effective immediately.

Budget Impact: There is an increased workload associated with implementing the GRSG Plans. The increased workload must be accommodated within existing budgets at the field, district, and state office levels, and may result in not accomplishing targets or the deferral of accomplishments in other program areas through redirection of existing funding.

Background: The GRSG Plans included GRSG habitat and population triggers and associated responses. Each GRSG Plan generally contains both soft and hard triggers and associated responses to address population and habitat changes. When hard triggers are exceeded each GRSG Plan provides for specific plan-level responses to be instituted. A causal factor analysis may also be necessary to determine the cause of the hard trigger being tripped. When soft triggers are exceeded, more conservative or restrictive conservation measures will be implemented on a project-by-project basis, and an additional evaluation to determine cause will occur, as described in each GRSG Plan, in order to determine appropriate responses. The habitat and population triggers and responses are specific to each GRSG Plan; State Offices should carefully review their GRSG Plans regarding triggers and responses.

Manual/Handbook Sections Affected: None.

Coordination: Preparation of this IM was coordinated with the Greater Sage-Grouse Implementation Team, Western State Governments, U.S. Forest Service and U.S. Fish and Wildlife Service.

Contact: If you have any questions regarding this IM, please contact Leah Baker, Division Chief for Planning, NEPA, and Decision support (WO-210), (202) 912-7282.



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240
<http://www.blm.gov>



SEP 1 2016

In Reply Refer To:
1610 (200) P

Instruction Memorandum No. 2016-139
Expires: 09/30/2019

To: All Assistant Directors, All Field Offices, State Directors, and National Operations Center Director

From: Deputy Director *Steven A. Ellis*

Subject: Policy for Resource Management Plan Effectiveness Monitoring for Renewable Resources with Additional Guidance for Plans Implementing the Greater Sage-Grouse Conservation Strategy

Program Areas: All Program Areas

Purpose: This Instruction Memorandum (IM) provides guidance on the use of terrestrial and aquatic objectives and quantitative data to determine Resource Management Plan (RMP) effectiveness. Additionally, for RMPs that include Greater Sage-Grouse (GRSG) habitat, this IM provides guidance for tracking and reporting on the implementation of decisions using the e-Planning tracking database.

Policy/Action:

RMP Effectiveness Monitoring of Renewable Resources on BLM Lands—Applies to All RMPs

Assessing RMP effectiveness is a component of the land use plan evaluation as described in the Land Use Planning Handbook (H-1601-1). The effectiveness of BLM RMPs will be determined by the status and trend of the terrestrial and aquatic resources relative to the objectives identified in the plans. Data to inform the effectiveness of the RMPs will be collected following the Assessment, Inventory and Monitoring (AIM) principles (BLM Technical Note 445) following a rotating panel design.¹ The data will be collected following the indicators and methods outlined in BLM Technical Note 440 for terrestrial resources and BLM Technical Reference 1735-1 for aquatic resources. At the end of the panel rotation, the appropriate state and field office leads, in conjunction with the National Operations Center (NOC), will prepare a report on the

¹ This is a design where an equal number of sample points are visited across the study area each year for a set number of years; e.g., 5-years. This allows for an adequate representation of the variability within the study area while also accounting for inter-annual variability due to climatic conditions. See Attachment A for an example.

effectiveness of the field office decisions in meeting the terrestrial and aquatic objectives based upon the status and trend of the specific indicator(s). If objectives are not met or if the area is not making progress toward meeting the objectives, the field office will conduct a causal factor analysis and whether or not the cause is the result of BLM decisions, the resulting report should discuss if and how the BLM can work to reduce or eliminate any of the causal factors.

As stated above, AIM indicators values will inform assessment of status and trend of terrestrial and aquatic objectives identified in the RMP. Supplemental indicators, methods, and sample intensification (Attachment 1) may be needed to determine achievement, or trend toward achievement, of local objectives (i.e., allotments, vegetation treatments, habitats for special status species, etc.) and the effectiveness of implementing management actions for a specific activity. Qualitative assessments such as Interpreting Indicators of Rangeland Health (TR 1734-6), Greater Sage-Grouse Habitat Assessment Framework (TR 6710-1), or Proper Functioning Condition (TR 1737-15), should be used to augment the status and trend information and should incorporate AIM indicators and methods to complete the assessments, when possible. In addition, other partner information that describes terrestrial and aquatic condition can be used to inform the assessment. Other assessment efforts are not a substitute for the standardized, quantitative data needed to report on the effectiveness of the RMP, however they may serve as an adequate surrogate until adequate data points following the AIM principles have been collected to detect resource changes that would result from management actions within the RMP area.

Additional Requirements for RMP Effectiveness Monitoring of the GRSG Plans

In addition to the RMP effectiveness monitoring described above, BLM field offices with Approved Resource Management Plan Amendments for the Rocky Mountain and Great Basin GRSG Regions and nine Approved Resource Management Plans in the Rocky Mountain GRSG Region (collectively referred to as the GRSG Plans), will use AIM data, methods, data capture, and data management to assess the status and trend of GRSG habitat within a region, state, or habitat management area as defined in the GRSG Plans. The AIM principles and practices are described in the GRSG Habitat Assessment Framework. Each of the approved GRSG Plans establishes GRSG seasonal habitat objectives that are adjusted based upon site potential and calculated from the AIM data. Additional indicators may be necessary to complete some of the seasonal habitat assessments and are described in the Habitat Assessment Framework.

The AIM data will also be used to inform the RMP effectiveness indicators described in the GRSG Monitoring Framework (Attachment 2), as appropriate. The GRSG Monitoring Framework, found in each of the approved GRSG Plans, contains the necessary guidance for monitoring, evaluating, and reporting commitments. Since many of the monitoring commitments in the GRSG Plans are new commitments for the BLM, the state offices (SOs), field offices (FOs), and the NOC are taking a systematic approach to develop monitoring plans that not only address the reporting requirements, but also simultaneously provide data to inform other management questions. Please contact your state monitoring coordinator and sage-grouse implementation lead to determine the appropriate data for interim reports until implementation of the monitoring plan is complete.

GRSG Plan Authorization Tracking

This IM directs all affected BLM offices with GRSG Plans, starting on the date this IM is issued, to use ePlanning to track BLM implementation activities, in conformance with existing RMPs, including those associated with the GRSG Plans. The GRSG Monitoring Framework commits the BLM to track project-level and/or site-specific actions and authorizations within Priority Habitat Management Areas, General Habitat Management Areas, and other sage-grouse designated management areas within each planning area. BLM SOs will provide an authorization tracking report to the Washington Office (WO) on an annual basis for each FO affected by GRSG Plans within their state. SOs will also be responsible for submitting a summary report to the Washington Office every five years. Several BLM states currently use ePlanning to register National Environmental Policy Act (NEPA) projects. Offices unable to use ePlanning to track implementation prior to the date this IM is issued will track these items and subsequently enter them into ePlanning when it becomes available.

The ePlanning database will allow the BLM to consistently enter information regarding individual implementation-level NEPA projects, which can then be used to aggregate information for reporting purposes by a geographical unit, such as a planning area. For example, using the information from the database, a manager can ascertain how many transmission rights-of-way have been approved in GRSG Priority Habitat Management Areas in a specific planning area. When the BLM registers a NEPA project into ePlanning, the system directs that information related to the proposed action be used to populate the database. Instructions on using ePlanning can be found on the ePlanning SharePoint Site.

Timeframe: This IM is effective immediately upon receipt.

Budget Impact: The BLM received funding in Fiscal Year (FY) 2016 to initiate these activities in the highest value habitats. The BLM anticipates these additional funds will also be received in FY 2017. BLM SOs, FOs, and the NOC will prioritize monitoring in the highest value habitats annually based on available funds.

Background:

RMP effectiveness monitoring for renewable resources, including GRSG habitat, is required to assess the status and trend of RMP resource condition objectives. Many species and resources, including GRSG, are broadly distributed across the landscape and cross geopolitical boundaries. Monitoring that includes quantitative terrestrial and aquatic indicators can provide the basis to evaluate the status and trend of quantifiable RMP objectives, evaluate land health, and determine achievement of Land Health Standards. Thus, the coordination of monitoring and assessments, where overlap exists, will create efficiencies through the elimination of redundant data collection activities by collecting data once and using it for multiple applications.

The AIM Strategy (IB 2012-080) establishes the rationale and need to adopt terrestrial and aquatic indicators that can be used broadly to ascertain achievement of Land Health Standards, which conform to the Fundamentals of Land Health. The AIM Strategy also provides a nationally consistent monitoring approach that provides information at multiple scales about resource extent, condition, and trend. The data collected through AIM implementation provide

the opportunity to use quantitative data multiple times for many purposes and provide data that are essential for informed, defensible land management decisions. The AIM Strategy moves the BLM toward a new paradigm where data are digitally collected, stored in spatially enabled databases, managed in an enterprise architecture environment, and easily shared across the BLM offices, partner agencies and interested publics.

Tracking of project-level and/or site-specific actions and authorizations within Priority Habitat, General Habitat, and other sage-grouse designated management areas will provide managers with the information needed to determine if the decisions in the GRSB Plans are being implemented. Findings obtained through authorization tracking, together with effectiveness monitoring results, and other research and new information, provide the basis for adaptive management changes to the plan. The processes of monitoring and adaptive management share the goal of improving effectiveness and permitting a dynamic response to increased knowledge of a changing landscape.

Manual/Handbook Sections Affected: Land Use Planning Handbook H-1601-1; Rangeland Health Standards Handbook H-4180-1; Special Status Species Management Manual 6840.

Coordination: Preparation of this IM was coordinated with State Assessment, Inventory, and Monitoring Leads, State Sage-Grouse Monitoring Leads, Deputy State Directors, and the Executive Leadership Team.

Contact: If you have any questions regarding this IM or training for implementing the AIM strategy, please contact Gordon Toevs, Senior Advisor, Sage-Grouse Implementation, at 202-567-1589 or by email at gtoevs@blm.gov.

Attachments

- 1- Implementation of Resource Management Plan Effectiveness Monitoring for Renewable Resources (4pp)
- 2- Greater Sage-Grouse Monitoring Framework (48pp)

Attachment 1: Implementation of Resource Management Plan (RMP) Effectiveness Monitoring for Renewable Resources

Sample Design

The attainment of renewable resource objectives within resource management plans (RMPs) will be assessed using statistically valid sample designs on a five-year rotating panel (Figure 1). Sample designs are intended to be comprehensive across all BLM lands and ascertain the cumulative effectiveness of plan objectives as described in RMPs. Effectiveness monitoring is the process of collecting data to determine whether desired outcomes (expressed as goals and objectives in the resource management plan) are met (or progress is being made toward meeting them) as the allowable uses and management actions are being implemented. All sample designs will be cooperative efforts between the National Operations Center (NOC), state offices, and the field office(s) implementing the sample design.

Where RMP objectives correspond with state or regional standards and guides, efficiencies can be gained through development of survey designs to simultaneously assess the attainment of both RMP objectives and land health standards. The Assessment Inventory Monitoring (AIM) terrestrial and aquatic indicators will be used, with supplemental indicators as necessary, to assess the attainment of land health standards. During the development of the monitoring plan, the NOC will provide guidance on cross-walking indicators to standards. To achieve these dual monitoring and assessment purposes, intensification in target areas of high value or conflict (i.e., National Conservation Lands, mitigation sites, allotments, project areas) or to monitor habitat areas for species of concern (i.e., Desert Tortoise, Prairie Chicken, Gunnison or Greater Sage-Grouse) may be required. The required number of sample points for each reporting unit will vary, depending on many factors such as the size and variability of the reporting area, the scope of the proposed management activity, and the desired level of confidence.

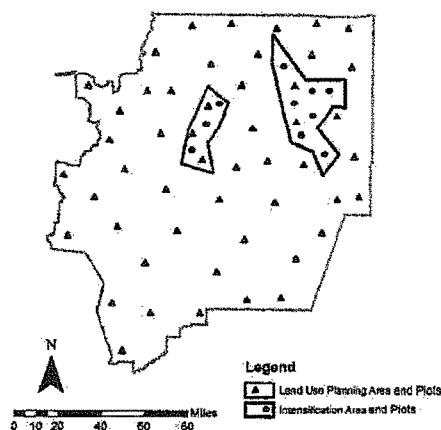


Figure 1. Example of the statistically-based 5-year rotating sample design addressing RMP effectiveness. Sample points were selected randomly such that every location within the RMP area had a known chance of being sampled, enabling inferences across the entire landscape. Example inferences include the average bare soil cover in the RMP area or the percentage of the landscape with presence of non-native invasive species. A subset of these points will be sampled each year over 5 consecutive years to complete the sample design. When additional information is needed in a specific area within the planning unit, sampling can be intensified and additional indicators can be added.

Data Collection

BLM terrestrial (Technical Note 440) and aquatic indicators (Technical Reference 1785-1), will be collected using consistent methods and electronic data capture. Supplemental indicators will be identified during the development or periodic review of the monitoring plan. Other assessment protocols such as Habitat Assessment Framework (HAF), Interpreting Indicators of Rangeland Health, and Proper Functioning Condition (PFC) are effective assessment tools and should incorporate the quantitative indicators whenever possible. The use of dedicated seasonal field crews hired within the BLM or through agreements with partner organizations, especially those that engage youth, is highly recommended and has proven to be the most repeatable and least costly option for data collection efforts. Agreements should be administered by the BLM AIM State Monitoring Lead in cooperation with the field office monitoring coordinator and the NOC. These crews will receive training in data collection and stewardship protocols from the NOC or partnering office, including method calibration and quality control. District and/or field offices will serve as local experts to organize logistics, day-to-day operations, and safety of the field crews, as well as have the primary responsibility for ensuring the quality and completeness of the data and the in-season calibration requirements.

Data Storage

The data will be captured and managed electronically by the field crew, the field office, and the state office such that they can be uploaded and stored in the terrestrial and aquatic monitoring databases at the NOC. After quality control at the field and district level, data will be aggregated at the state level by the AIM State Monitoring Lead. The AIM State Monitoring Lead will then submit the data to the NOC for final quality control, central storage, and management.

Analysis and Reporting

Indicator values from the data will be made available annually by the NOC through the EGIS web portal and geospatial gateway. These indicator values, and the underlying sample design, will inform estimates of the status of renewable resources at the RMP scale as well as broader (e.g., ecoregional) and finer (e.g., intensification areas, treatment areas, habitat areas, watersheds) scales. Field offices and state offices will be responsible for reporting at the RMP scale and finer units. NOC will provide analytical tools, indicator estimates, and other support as needed. Regional and national monitoring results will be analyzed and reported by the NOC. Baseline data collected during the first five years of monitoring can be used to assess status. Trend estimates will be possible thereafter and can be reported along with the annual estimates. Additional BLM monitoring data such as those collected for the national BLM Landscape Monitoring Framework and the Western Rivers and Streams Assessment will be available to supplement the data collected through the field office sample design.

The Land Use Planning Handbook describes the analysis and reporting requirements for assessing the effectiveness of RMP objectives for renewable resources. Effectiveness monitoring is the process of collecting data to determine whether desired outcomes (expressed as goals and objectives in the land use plan) are met (or progress is being made toward meeting them) as the allowable uses and management actions are being implemented. A monitoring

strategy must be developed as part of the land use plan that identifies monitoring indicators, acceptable thresholds of departure from potential natural conditions, protocols, and timeframes that will be used to evaluate and determine whether or not desired outcomes are being achieved. RMP reporting will occur on a 5-year basis, as documented in the evaluation schedule. Plan evaluations should also be completed prior to any plan revisions and for major plan amendments. Where appropriate, state and field offices identify resource management plans that can be grouped/ batched in a geographic region or planning area to look at issues that cut across boundaries (broad and mid-scale reporting). Each plan should have its own evaluation documentation as well as a combined (grouped/batched) evaluation for all RMPs identified in the geographical region or planning area. The AIM terrestrial and aquatic data will provide the baseline and the trend data for renewable resource objectives and thresholds related to uplands, riparian-wetlands, water quality, and upland and in-stream habitats. Supplemental indicators should be added, as necessary, for resource objective and thresholds where the AIM data does not provide adequate information.

For those plans amended, revised, or replaced by the Greater Sage-Grouse Planning Effort, more specific management questions have been added to the LUP effectiveness evaluation. The additional effectiveness questions are: 1) is the plan effective in achieving (or making progress toward achieving) desired outcomes based on the sage-grouse habitat objectives; 2) is the plan effective in meeting, or making progress toward meeting, land health standards, including Special Status Species/wildlife habitat standard; 3) is the plan meeting the disturbance objective(s) within the RMP area, and 4) are the populations within this plan boundary increasing, stable, or declining?

Training

Monitoring protocol trainings required for this activity will include the terrestrial and aquatic core indicators (Technical Note 440 and Technical Reference 1785-1, respectively), as well as trainings to complete assessments such as HAF, Interpreting Indicators of Rangeland Health, and PFC. Additional training for BLM resource staff in the use and interpretation of data will be available via webinars. Trainings will be coordinated through the BLM NOC with the NTC and partnering offices or regional training facilities.

Roles and Responsibilities

Step	Activity	Responsible Entity
Planning/Funding	Secure/Manage Funding Maintain Agreements Coordinate multi-scale objectives	State Office (SO) (State AIM Monitoring Coordinator)
Study Design	Broad- and mid-scale statistical design Fine and site scale densifications Identify sample points	NOC, with substantial input from Field (FO) and State Office (SO) (Partner with USDA-Jornada & USU-NAMC)
Data Collection	Hire/oversee field crews Logistical support Ensure training of field crews Collect indicator data	District/Field Office with oversight in coordination from the State AIM Monitoring Coordinator

Quality Control	Field data-entry validation Completeness of data collection Data aggregation	FO/DO SO Final quality control by NOC
Data Storage	Upload field data to central database Make data available on BLM network	NOC
Analysis and Reporting	Evaluate land health standards RMP Effectiveness	Broad- and mid-scale reporting by the NOC; Resource management plan area, fine and site scale reporting by SO and FO (Partner with USDA-Jornada & USU-NAMC)

**THE GREATER
SAGE-GROUSE
MONITORING
FRAMEWORK**

Bureau of Land Management
U.S. Forest Service

*Developed by
the Interagency
Greater
Sage-Grouse
Disturbance
and Monitoring
Subteam*

May 30, 2014

The Greater Sage-Grouse Monitoring Framework

Developed by the Interagency Greater Sage-Grouse Disturbance and Monitoring Subteam

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INTRODUCTION

The purpose of this U.S. Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Greater Sage-Grouse Monitoring Framework (hereafter, monitoring framework) is to describe the methods to monitor habitats and evaluate the implementation and effectiveness of the BLM's national planning strategy (attachment to BLM Instruction Memorandum 2012-044), the BLM resource management plans (RMPs), and the USFS's land management plans (LMPs) to conserve the species and its habitat. The regulations for the BLM (43 CFR 1610.4-9) and the USFS (36 CFR part 209, published July 1, 2010) require that land use plans establish intervals and standards, as appropriate, for monitoring and evaluations based on the sensitivity of the resource to the decisions involved. Therefore, the BLM and the USFS will use the methods described herein to collect monitoring data and to evaluate implementation and effectiveness of the Greater Sage-Grouse (GRSG) (hereafter, sage-grouse) planning strategy and the conservation measures contained in their respective land use plans (LUPs). A monitoring plan specific to the Environmental Impact Statement, land use plan, or field office will be developed after the Record of Decision is signed. For a summary of the frequency of reporting, see Attachment A, An Overview of Monitoring Commitments. Adaptive management will be informed by data collected at any and all scales.

To ensure that the BLM and the USFS are able to make consistent assessments about sage-grouse habitats across the range of the species, this framework lays out the methodology—at multiple scales—for monitoring of implementation and disturbance and for evaluating the effectiveness of BLM and USFS actions to conserve the species and its habitat. Monitoring efforts will include data for measurable quantitative indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions. Implementation monitoring results will allow the BLM and the USFS to evaluate the extent that decisions from their LUPs to conserve sage-grouse and their habitat have been implemented. State fish and wildlife agencies will collect population monitoring information, which will be incorporated into effectiveness monitoring as it is made available.

This multiscale monitoring approach is necessary, as sage-grouse are a landscape species and conservation is scale-dependent to the extent that conservation actions are implemented within seasonal habitats to benefit populations. The four orders of habitat selection (Johnson 1980) used in this monitoring framework are described by Connelly et al. (2003) and were applied specifically to the scales of sage-grouse habitat selection by Stiver et al. (*in press*) as first order (broad scale), second order (mid scale), third order (fine scale), and fourth order (site scale). Habitat selection and habitat use by sage-grouse occur at multiple scales and are driven by multiple environmental and behavioral factors. Managing and monitoring sage-grouse habitats are complicated by the differences in habitat selection across the range and habitat use by individual birds within a given season. Therefore, the tendency to look at a single indicator of habitat suitability or only one scale limits managers' ability to identify the threats to sage-grouse.

and to respond at the appropriate scale. For descriptions of these habitat suitability indicators for each scale, see “Sage-Grouse Habitat Assessment Framework: Multiscale Habitat Assessment Tool” (HAF; Stiver et al. *in press*).

Monitoring methods and indicators in this monitoring framework are derived from the current peer-reviewed science. Rangewide, best available datasets for broad- and mid-scale monitoring will be acquired. If these existing datasets are not readily available or are inadequate, but they are necessary to inform the indicators of sagebrush availability, anthropogenic disturbance levels, and sagebrush conditions, the BLM and the USFS will strive to develop datasets or obtain information to fill these data gaps. Datasets that are not readily available to inform the fine- and site-scale indicators will be developed. These data will be used to generate monitoring reports at the appropriate and applicable geographic scales, boundaries, and analysis units: across the range of sage-grouse as defined by Schroeder et al. (2004), and clipped by Western Association of Fish and Wildlife Agencies (WAFWA) Management Zone (MZ) (Stiver et al. 2006) boundaries and other areas as appropriate for size (e.g., populations based on Connelly et al. 2004). (See Figure 1, Map of Greater Sage-Grouse range, populations, subpopulations, and Priority Areas for Conservation as of 2013.) This broad- and mid-scale monitoring data and analysis will provide context for RMP/LMP areas; states; GRSG Priority Habitat, General Habitat, and other sage-grouse designated management areas; and Priority Areas for Conservation (PACs), as defined in “Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report” (Conservation Objectives Team [COT] 2013). Hereafter, all of these areas will be referred to as “sage-grouse areas.”

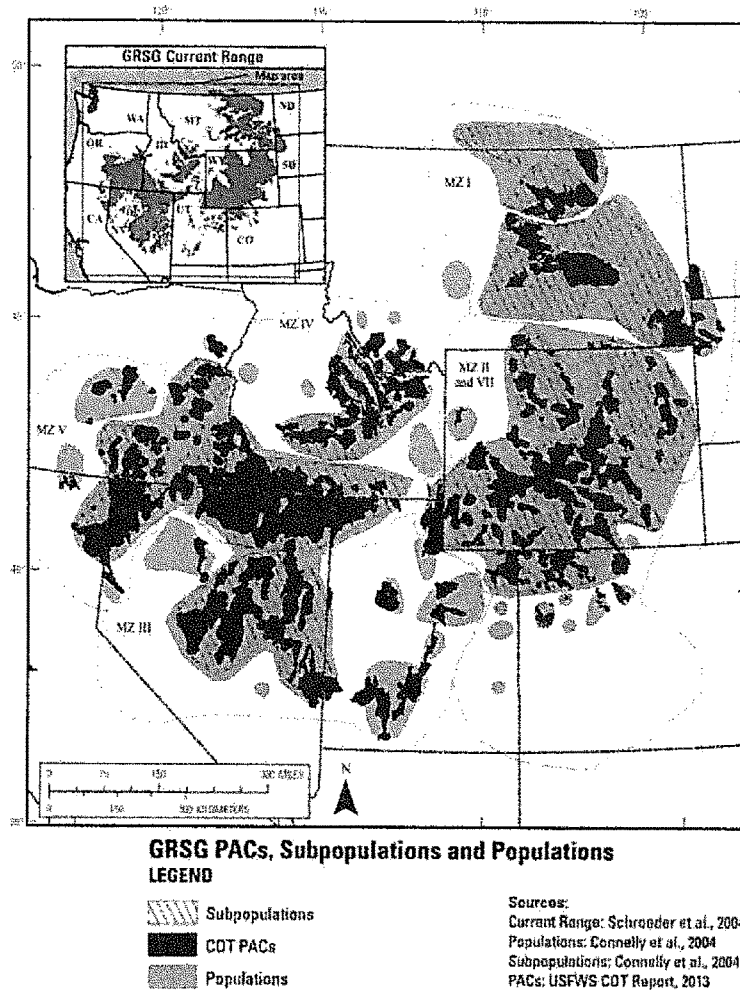


Figure 1. Map of Greater Sage-Grouse range, populations, subpopulations, and Priority Areas for Conservation as of 2013.

This monitoring framework is divided into two sections. The broad- and mid-scale methods, described in Section I, provide a consistent approach across the range of the species to monitor implementation decisions and actions, mid-scale habitat attributes (e.g., sagebrush availability and habitat degradation), and population changes to determine the effectiveness of the planning strategy and management decisions. (See Table 1, Indicators for monitoring implementation of the national planning strategy, RMP/LMP decisions, sage-grouse habitat, and sage-grouse populations at the broad and mid scales.) For sage-grouse habitat at the fine and site scales, described in Section II, this monitoring framework describes a consistent approach (e.g., indicators and methods) for monitoring sage-grouse seasonal habitats. Funding, support, and dedicated personnel for broad- and mid-scale monitoring will be renewed annually through the normal budget process. For an overview of BLM and USFS multiscale monitoring commitments, see Attachment A.

Table 1. Indicators for monitoring implementation of the national planning strategy, RMP/LMP decisions, sage-grouse habitat, and sage-grouse populations at the broad and mid scales.

Implementation		Habitat		Population (State Wildlife Agencies)
<i>Geographic Scales</i>		Availability	Degradation	Demographics
Broad Scale: From the range of sage- grouse to WAFWA Management Zones	BLM/USFS National planning strategy goal and objectives	Distribution and amount of sagebrush within the range	Distribution and amount of energy, mining, and infrastructure facilities	WAFWA Management Zone population trend
Mid Scale: From WAFWA Management Zone to populations; PACs	RMP/LMP decisions	Mid-scale habitat indicators (HAF; Table 2 herein, e.g., percent of sagebrush per unit area)	Distribution and amount of energy, mining, and infrastructure facilities (Table 2 herein)	Individual population trend

I. BROAD AND MID SCALES

First-order habitat selection, the broad scale, describes the physical or geographical range of a species. The first-order habitat of the sage-grouse is defined by populations of sage-grouse associated with sagebrush landscapes, based on Schroeder et al. 2004, and Connelly et al. 2004, and on population or habitat surveys since 2004. An intermediate scale between the broad and mid scales was delineated by WAFWA from floristic provinces within which similar environmental factors influence vegetation communities. This scale is referred to as the WAFWA Sage-Grouse Management Zones (MZs). Although no indicators are specific to this scale, these MZs are biologically meaningful as reporting units.

Second-order habitat selection, the mid-scale, includes sage-grouse populations and PACs. The second order includes at least 40 discrete populations and subpopulations (Connelly et al. 2004). Populations range in area from 150 to 60,000 mi² and are nested within MZs. PACs range from 20 to 20,400 mi² and are nested within population areas.

Other mid-scale landscape indicators, such as patch size and number, patch connectivity, linkage areas, and landscape matrix and edge effects (Stiver et al. *in press*) will also be assessed. The methods used to calculate these metrics will be derived from existing literature (Knick et al. 2011, Leu and Hanser 2011, Knick and Hanser 2011).

A. Implementation (Decision) Monitoring

Implementation monitoring is the process of tracking and documenting the implementation (or the progress toward implementation) of RMP/LMP decisions. The BLM and the USFS will monitor implementation of project-level and/or site-specific actions and authorizations, with their associated conditions of approval/stipulations for sage-grouse, spatially (as appropriate) within Priority Habitat, General Habitat, and other sage-grouse designated management areas, at a minimum, for the planning area. These actions and authorizations, as well as progress toward completing and implementing activity-level plans, will be monitored consistently across all planning units and will be reported to BLM and USFS headquarters annually, with a summary report every 5 years, for the planning area. A national-level GRS Land Use Plan Decision Monitoring and Reporting Tool is being developed to describe how the BLM and the USFS will consistently and systematically monitor and report implementation-level activity plans and implementation actions for all plans within the range of sage-grouse. A description of this tool for collection and reporting of tabular and spatially explicit data will be included in the Record of Decision or approved plan. The BLM and the USFS will provide data that can be integrated with other conservation efforts conducted by state and federal partners.

B. Habitat Monitoring

The U.S. Fish and Wildlife Service (USFWS), in its 2010 listing decision for the sage-grouse, identified 18 threats contributing to the destruction, modification, or curtailment of sage-grouse habitat or range (75 FR 13910 2010). The BLM and the USFS will, therefore, monitor the relative extent of these threats that remove sagebrush, both spatially and temporally, on all lands within an analysis area, and will report on amount, pattern, and condition at the appropriate and applicable geographic scales and boundaries. These 18 threats have been aggregated into three broad- and mid-scale measures to account for whether the threat predominantly removes sagebrush or degrades habitat. (See Table 2, Relationship between the 18 threats and the three habitat disturbance measures for monitoring.) The three measures are:

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Energy and Mining Density (facilities and locations per unit area)

These three habitat disturbance measures will evaluate disturbance on all lands, regardless of land ownership. The direct area of influence will be assessed with the goal of accounting for actual removal of sagebrush on which sage-grouse depend (Connelly et al. 2000) and for habitat degradation as a surrogate for human activity. Measure 1 (sagebrush availability) examines where disturbances have removed plant communities that support sagebrush (or have broadly removed sagebrush from the landscape). Measure 1, therefore, monitors the change in sagebrush availability—or, specifically, where and how much of the sagebrush community is available within the range of sage-grouse. The sagebrush community is defined as the ecological systems that have the capability of supporting sagebrush vegetation and seasonal sage-grouse habitats within the range of sage-grouse (see Section I.B.1., Sagebrush Availability). Measure 2 (see Section I.B.2., Habitat Degradation Monitoring) and Measure 3 (see Section I.B.3., Energy and Mining Density) focus on where habitat degradation is occurring by using the footprint/area of direct disturbance and the number of facilities at the mid scale to identify the relative amount of degradation per geographic area of interest and in areas that have the capability of supporting sagebrush and seasonal sage-grouse use. Measure 2 (habitat degradation) not only quantifies footprint/area of direct disturbance but also establishes a surrogate for those threats most likely to have ongoing activity. Because energy development and mining activities are typically the most intensive activities in sagebrush habitat, Measure 3 (the density of active energy development, production, and mining sites) will help identify areas of particular concern for such factors as noise, dust, traffic, etc. that degrade sage-grouse habitat.

Table 2. Relationship between the 18 threats and the three habitat disturbance measures for monitoring.

Note: Data availability may preclude specific analysis of individual layers. See the detailed methodology for more information.

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation	Energy and Mining Density
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

The methods to monitor disturbance found herein differ slightly from methods used in Manier et al. 2013, which provided a baseline environmental report (BER) of datasets of disturbance across jurisdictions. One difference is that, for some threats, the BER data were for federal lands only. In addition, threats were assessed individually, using different assumptions from those in this monitoring framework about how to quantify the location and magnitude of threats. The methodology herein builds on the BER methodology and identifies datasets and procedures to use the best available data across the range of the sage-grouse and to formulate a consistent approach to quantify impact of the threats through time. This methodology also describes an approach to combine the threats and calculate each of the three habitat disturbance measures.

B.1. Sagebrush Availability (Measure 1)

Sage-grouse populations have been found to be more resilient where a percentage of the landscape is maintained in sagebrush (Knick and Connelly 2011), which will be determined by sagebrush availability. Measure 1 has been divided into two submeasures to describe sagebrush availability on the landscape:

Measure 1a: the current amount of sagebrush on the geographic area of interest, and

Measure 1b: the amount of sagebrush on the geographic area of interest compared with the amount of sagebrush the landscape of interest could ecologically support.

Measure 1a (the current amount of sagebrush on the landscape) will be calculated using this formula: [the existing updated sagebrush layer] divided by [the geographic area of interest]. The appropriate geographic areas of interest for sagebrush availability include the species' range, WAFWA MZs, populations, and PACs. In some cases these sage-grouse areas will need to be aggregated to provide an estimate of sagebrush availability with an acceptable level of accuracy.

Measure 1b (the amount of sagebrush for context within the geographic area of interest) will be calculated using this formula: [existing sagebrush divided by [pre-EuroAmerican settlement geographic extent of lands that could have supported sagebrush]. This measure will provide information to set the context for a given geographic area of interest during evaluations of monitoring data. The information could also be used to inform management options for restoration or mitigation and to inform effectiveness monitoring.

The sagebrush base layer for Measure 1 will be based on geospatial vegetation data adjusted for the threats listed in Table 2. The following subsections of this monitoring framework describe the methodology for determining both the current availability of sagebrush on the landscape and the context of the amount of sagebrush on the landscape at the broad and mid scales.

a. Establishing the Sagebrush Base Layer

The current geographic extent of sagebrush vegetation within the rangewide distribution of sage-grouse populations will be ascertained using the most recent version of the Existing Vegetation Type (EVT) layer in LANDFIRE (2013). LANDFIRE EVT was selected to serve as the sagebrush base layer for five reasons: 1) it is the only nationally consistent vegetation layer that has been updated multiple times since 2001; 2) the ecological systems classification within LANDFIRE EVT includes multiple sagebrush type classes that, when aggregated, provide a more accurate (compared with individual classes) and seamless sagebrush base layer across jurisdictional boundaries; 3) LANDFIRE performed a rigorous accuracy assessment from which to derive the rangewide uncertainty of the sagebrush base layer; 4) LANDFIRE is consistently used in several recent analyses of sagebrush habitats (Knick et al. 2011, Leu and Hanser 2011, Knick and Hanser 2011); and 5) LANDFIRE EVT can be compared against the geographic extent of lands that are believed to have had the capability of supporting sagebrush vegetation pre-EuroAmerican settlement [LANDFIRE Biophysical Setting (BpS)]. This fifth reason provides a reference point for understanding how much sagebrush currently remains in a defined geographic area of interest compared with how much sagebrush existed historically (Measure 1b). Therefore, the BLM and the USFS have determined that LANDFIRE provides the best available data at broad and mid scales to serve as a sagebrush base layer for monitoring changes in the geographic extent of sagebrush. The BLM and the USFS, in addition to aggregating the sagebrush types into the sagebrush base layer, will aggregate the accuracy assessment reports from LANDFIRE to document the cumulative accuracy for the sagebrush base layer. The BLM—through its Assessment, Inventory, and Monitoring (AIM) program and, specifically, the BLM's landscape monitoring framework (Taylor et al. 2014)—will provide field data to the LANDFIRE program to support continuous quality improvements of the LANDFIRE EVT layer. The sagebrush layer based on LANDFIRE EVT will allow for the mid-scale estimation of the existing percent of sagebrush across a variety of reporting units. This sagebrush base layer will be adjusted by changes in land cover and successful restoration for future calculations of sagebrush availability (Measures 1a and 1b).

This layer will also be used to determine the trend in other landscape indicators, such as patch size and number, patch connectivity, linkage areas, and landscape matrix and edge effects (Stiver et al. *in press*). In the future, changes in sagebrush availability, generated annually, will be included in the sagebrush base layer. The landscape metrics will be recalculated to examine changes in pattern and abundance of sagebrush at the various geographic boundaries. This information will be included in effectiveness monitoring (See Section I.D., Effectiveness Monitoring).

Within the USFS and the BLM, forest-wide and field office-wide existing vegetation classification mapping and inventories are available that provide a much finer level of data than what is provided through LANDFIRE. Where available, these finer-scale products will be useful for additional and complementary mid-scale indicators and local-scale analyses (see Section II,

Fine and Site Scales). The fact that these products are not available everywhere limits their utility for monitoring at the broad and mid scale, where consistency of data products is necessary across broader geographies.

Data Sources for Establishing and Monitoring Sagebrush Availability

There were three criteria for selecting the datasets for establishing and monitoring the change in sagebrush availability (Measure 1):

- Nationally consistent dataset available across the range
- Known level of confidence or accuracy in the dataset
- Continual maintenance of dataset and known update interval

Datasets meeting these criteria are listed in Table 3, Datasets for establishing and monitoring changes in sagebrush availability.

LANDFIRE Existing Vegetation Type (EVT) Version 1.2

LANDFIRE EVT represents existing vegetation types on the landscape derived from remote sensing data. Initial mapping was conducted using imagery collected in approximately 2001. Since the initial mapping there have been two update efforts: version 1.1 represents changes before 2008, and version 1.2 reflects changes on the landscape before 2010. Version 1.2 will be used as the starting point to develop the sagebrush base layer.

Sage-grouse subject matter experts determined which of the ecological systems from the LANDFIRE EVT to use in the sagebrush base layer by identifying the ecological systems that have the capability of supporting sagebrush vegetation and that could provide suitable seasonal habitat for the sage-grouse. (See Table 4, Ecological systems in BpS and EVT capable of supporting sagebrush vegetation and capable of providing suitable seasonal habitat for Greater Sage-Grouse.) Two additional vegetation types that are not ecological systems were added to the EVT: *Artemisia tridentata* ssp. *vaseyana* Shrubland Alliance and *Quercus gambelii* Shrubland Alliance. These alliances have species composition directly related to the Rocky Mountain Lower Montane-Foothill Shrubland ecological system and the Rocky Mountain Gambel Oak-Mixed Montane Shrubland ecological system, both of which are ecological systems in LANDFIRE BpS. In LANDFIRE EVT, however, in some map zones, the Rocky Mountain Lower Montane-Foothill Shrubland ecological system and the Rocky Mountain Gambel Oak-Mixed Montane Shrubland ecological system were named *Artemisia tridentata* ssp. *vaseyana* Shrubland Alliance and *Quercus gambelii* Shrubland Alliance, respectively.

Table 3. Datasets for establishing and monitoring changes in sagebrush availability.

Dataset	Source	Update Interval	Most Recent Version Year	Use
BioPhysical Setting v1.1	LANDFIRE	Static	2008	Denominator for sagebrush availability
Existing Vegetation Type v1.2	LANDFIRE	Static	2010	Numerator for sagebrush availability
Cropland Data Layer	National Agricultural Statistics Service	Annual	2012	Agricultural updates; removes existing sagebrush from numerator of sagebrush availability
National Land Cover Dataset Percent Imperviousness	Multi-Resolution Land Characteristics Consortium (MRLC)	5-Year	2011 (next available in 2016)	Urban area updates; removes existing sagebrush from numerator of sagebrush availability
Fire Perimeters	GeoMac	Annual	2013	< 1,000-acre fire updates; removes existing sagebrush from numerator of sagebrush availability
Burn Severity	Monitoring Trends in Burn Severity	Annual	2012 (2-year delay in data availability)	> 1,000-acre fire updates; removes existing sagebrush from numerator of sagebrush availability except for unburned sagebrush islands

Table 4. Ecological systems in BpS and EVT capable of supporting sagebrush vegetation and capable of providing suitable seasonal habitat for Greater Sage-Grouse.

Ecological System	Sagebrush Vegetation that the Ecological System has the Capability of Producing
Colorado Plateau Mixed Low Sagebrush Shrubland	<i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia bigelovii</i> <i>Artemisia nova</i> <i>Artemisia frigida</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Columbia Plateau Low Sagebrush Steppe	<i>Artemisia arbuscula</i> <i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i>

Columbia Plateau Scabland Shrubland	<i>Artemisia rigida</i>
Columbia Plateau Steppe and Grassland	<i>Artemisia</i> spp.
Great Basin Xeric Mixed Sagebrush Shrubland	<i>Artemisia arbuscula</i> ssp. <i>longicaulis</i> <i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Inter-Mountain Basins Big Sagebrush Shrubland	<i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>xericensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Inter-Mountain Basins Big Sagebrush Steppe	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>xericensis</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tripartita</i> ssp. <i>tripartita</i> <i>Artemisia frigida</i>
Inter-Mountain Basins Curl-Leaf Mountain Mahogany Woodland and Shrubland	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i>
Inter-Mountain Basins Mixed Salt Desert Scrub	<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia spinescens</i>
Inter-Mountain Basins Montane Sagebrush Steppe	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia nova</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>spiciformis</i>
Inter-Mountain Basins Semi-Desert Shrub-Steppe	<i>Artemisia tridentata</i> <i>Artemisia bigelovii</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Northwestern Great Plains Mixed Grass Prairie	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia frigida</i>
Northwestern Great Plains Shrubland	<i>Artemisia cana</i> ssp. <i>cana</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	<i>Artemisia tridentata</i>
Rocky Mountain Lower Montane-Foothill Shrubland	<i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia frigida</i>
Western Great Plains Floodplain Systems	<i>Artemisia cana</i> ssp. <i>cana</i>
Western Great Plains Sand Prairie	<i>Artemisia cana</i> ssp. <i>cana</i>
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	<i>Artemisia arbuscula</i> ssp. <i>longiloba</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tripartita</i> ssp. <i>rupicola</i>
<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> Shrubland Alliance (EVT only)	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
<i>Quercus gambelii</i> Shrubland Alliance (EVT only)	<i>Artemisia tridentata</i>

Accuracy and Appropriate Use of LANDFIRE Datasets

Because of concerns over the thematic accuracy of individual classes mapped by LANDFIRE, all ecological systems listed in Table 4 will be merged into one value that represents the sagebrush base layer. With all ecological systems aggregated, the combined accuracy of the sagebrush base layer (EVT) will be much greater than if all categories were treated separately.

LANDFIRE performed the original accuracy assessment of its EVT product on a map zone basis. There are 20 LANDFIRE map zones that cover the historical range of sage-grouse as defined by Schroeder (2004). (See Attachment B, User and Producer Accuracies for Aggregated Ecological Systems within LANDFIRE Map Zones.) The aggregated sagebrush base layer for monitoring had user accuracies ranging from 57.1% to 85.7% and producer accuracies ranging from 56.7% to 100%.

LANDFIRE EVT data are not designed to be used at a local level. In reports of the percent sagebrush statistic for the various reporting units (Measure 1a), the uncertainty of the percent sagebrush will increase as the size of the reporting unit gets smaller. LANDFIRE data should never be used at the 30m pixel level (900m² resolution of raster data) for any reporting. The smallest geographic extent for using the data to determine percent sagebrush is at the PAC level; for the smallest PACs, the initial percent sagebrush estimate will have greater uncertainties compared with the much larger PACs.

Agricultural Adjustments for the Sagebrush Base Layer

The dataset for the geographic extent of agricultural lands will come from the National Agricultural Statistics Service (NASS) Cropland Data Layer (CDL) (<http://www.nass.usda.gov/research/Cropland/Release/index.htm>). CDL data are generated annually, with estimated producer accuracies for “large area row crops ranging from the mid 80% to mid-90%,” depending on the state (http://www.nass.usda.gov/research/Cropland/sarsfaq2.htm#Section3_18.0). Specific information on accuracy may be found on the NASS metadata website (<http://www.nass.usda.gov/research/Cropland/metadata/meta.htm>). CDL provided the only dataset that matches the three criteria (nationally consistent, known level of accuracy, and periodically updated) for use in this monitoring framework and represents the best available agricultural lands mapping product.

The CDL data contain both agricultural classes and nonagricultural classes. For this effort, and in the baseline environmental report (Manier et al. 2013), nonagricultural classes were removed from the original dataset. The excluded classes are:

Barren (65 & 131), Deciduous Forest (141), Developed/High Intensity (124), Developed/Low Intensity (122), Developed/Med Intensity (123), Developed/Open Space (121), Evergreen Forest (142), Grassland Herbaceous (171), Herbaceous Wetlands (195), Mixed Forest (143), Open

Water (83 & 111), Other Hay/Non Alfalfa (37), Pasture/Hay (181), Pasture/Grass (62), Perennial Ice/Snow (112), Shrubland (64 & 152), Woody Wetlands (190).

The rule set for adjusting the sagebrush base layer for agricultural lands (and for updating the base layer for agricultural lands in the future) is that once an area is classified as agriculture in any year of the CDL, those pixels will remain out of the sagebrush base layer even if a new version of the CDL classifies that pixel as one of the nonagricultural classes listed above. The assumption is that even though individual pixels may be classified as a nonagricultural class in any given year, the pixel has not necessarily been restored to a natural sagebrush community that would be included in Table 4. A further assumption is that once an area has moved into agricultural use, it is unlikely that the area would be restored to sagebrush. Should that occur, however, the method and criteria for adding pixels back into the sagebrush base layer would follow those found in the sagebrush restoration monitoring section of this monitoring framework (see Section I.B.1.b., Monitoring Sagebrush Availability).

Urban Adjustments for the Sagebrush Base Layer

The National Land Cover Database (NLCD) (Fry et al. 2011) includes a percent imperviousness dataset that was selected as the best available dataset to be used for urban adjustments and monitoring. These data are generated on a 5-year cycle and are specifically designed to support monitoring efforts. Other datasets were evaluated and lacked the spatial specificity that was captured in the NLCD product. Any new impervious pixel in NLCD will be removed from the sagebrush base layer through the monitoring process. Although the impervious surface layer includes a number of impervious pixels outside of urban areas, this is acceptable for the adjustment and monitoring for two reasons. First, an evaluation of national urban area datasets did not reveal a layer that could be confidently used in conjunction with the NLCD product to screen impervious pixels outside of urban zones. This is because unincorporated urban areas were not being included, thus leaving large chunks of urban pixels unaccounted for in this rule set. Second, experimentation with setting a threshold on the percent imperviousness layer that would isolate rural features proved to be unsuccessful. No combination of values could be identified that would result in the consistent ability to limit impervious pixels outside urban areas. Therefore, to ensure consistency in the monitoring estimates, all impervious pixels will be used.

Fire Adjustments for the Sagebrush Base Layer

Two datasets were selected for performing fire adjustments and updates: GeoMac fire perimeters and Monitoring Trends in Burn Severity (MTBS). An existing data standard in the BLM requires that all fires of more than 10 acres are to be reported to GeoMac; therefore, there will be many small fires of less than 10 acres that will not be accounted for in the adjustment and monitoring attributable to fire. Using fire perimeters from GeoMac, all sagebrush pixels falling

within the perimeter of fires less than 1,000 acres will be used to adjust and monitor the sagebrush base layer.

For fires greater than 1,000 acres, MTBS was selected as a means to account for unburned sagebrush islands during the update process of the sagebrush base layer. The MTBS program (<http://www.mtbs.gov>) is an ongoing, multiyear project to map fire severity and fire perimeters consistently across the United States. One of the burn severity classes within MTBS is an unburned to low-severity class. This burn severity class will be used to represent unburned islands of sagebrush within the fire perimeter for the sagebrush base layer. Areas within the other severity classes within the fire perimeter will be removed from the base sagebrush layer during the update process. Not all wildfires, however, have the same impacts on the recovery of sagebrush habitat, depending largely on soil moisture and temperature regimes. For example, cooler, moister sagebrush habitat has a higher potential for recovery or, if needed, restoration than does the warmer, dryer sagebrush habitat. These cooler, moister areas will likely be detected as sagebrush in future updates to LANDFIRE.

Conifer Encroachment Adjustment for the Sagebrush Base Layer

Conifer encroachment into sagebrush vegetation reduces the spatial extent of sage-grouse habitat (Davies et al. 2011, Baruch-Mordo et al. 2013). Conifer species that show propensity for encroaching into sagebrush vegetation resulting in sage-grouse habitat loss include various juniper species, such as Utah juniper (*Juniperus osteosperma*), western juniper (*Juniperus occidentalis*), Rocky Mountain juniper (*Juniperus scopulorum*), pinyon species, including singleleaf pinyon (*Pinus monophylla*) and pinyon pine (*Pinus edulis*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), and Douglas fir (*Pseudotsuga menziesii*) (Gruell et al. 1986, Grove et al. 2005, Davies et al. 2011).

A rule set for conifer encroachment was developed to adjust the sagebrush base layer. To capture the geographic extent of sagebrush that is likely to experience conifer encroachment, ecological systems within LANDFIRE EVT version 1.2 (NatureServe 2011) were identified if they had the capability of supporting both the conifer species (listed above) and sagebrush vegetation. Those ecological systems were deemed to be the plant communities with conifers most likely to encroach into sagebrush vegetation. (See Table 5, Ecological systems with conifers most likely to encroach into sagebrush vegetation.) Sagebrush vegetation was defined as including sagebrush species or subspecies that provide habitat for the Greater Sage-Grouse and that are included in the HAF. (See Attachment C, Sagebrush Species and Subspecies Included in the Selection Criteria for Building the EVT and BpS Layers.) An adjacency analysis was conducted to identify all sagebrush pixels that were directly adjacent to these conifer ecological systems, and these pixels were removed from the sagebrush base layer.

Table 5. Ecological systems with conifers most likely to encroach into sagebrush vegetation.

EVT Ecological Systems	Coniferous Species and Sagebrush Vegetation that the Ecological System has the Capability of Producing
Colorado Plateau Pinyon-Juniper Woodland	<i>Pinus edulis</i> <i>Juniperus osteosperma</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> ssp. <i>tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> <i>Artemisia bigelovii</i> <i>Artemisia pygmaea</i>
Columbia Plateau Western Juniper Woodland and Savanna	<i>Juniperus occidentalis</i> <i>Pinus ponderosa</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia rigida</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
East Cascades Oak-Ponderosa Pine Forest and Woodland	<i>Pinus ponderosa</i> <i>Pseudotsuga menziesii</i> <i>Artemisia tridentata</i> <i>Artemisia nova</i>
Great Basin Pinyon-Juniper Woodland	<i>Pinus monophylla</i> <i>Juniperus osteosperma</i> <i>Artemisia arbuscula</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	<i>Pinus ponderosa</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Rocky Mountain Foothill Limber Pine-Juniper Woodland	<i>Juniperus osteosperma</i> <i>Juniperus scopulorum</i> <i>Artemisia nova</i> <i>Artemisia tridentata</i>
Rocky Mountain Poor-Site Lodgepole Pine Forest	<i>Pinus contorta</i> <i>Pseudotsuga menziesii</i> <i>Pinus ponderosa</i> <i>Artemisia tridentata</i>
Southern Rocky Mountain Pinyon-Juniper Woodland	<i>Pinus edulis</i> <i>Juniperus monosperma</i> <i>Artemisia bigelovii</i> <i>Artemisia tridentata</i> <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
Southern Rocky Mountain Ponderosa Pine Woodland	<i>Pinus ponderosa</i> <i>Pseudotsuga menziesii</i>

	<i>Pinus edulis</i> <i>Pinus contorta</i> <i>Juniperus</i> spp. <i>Artemisia nova</i> <i>Artemisia tridentata</i> <i>Artemisia arbuscula</i> <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>
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Invasive Annual Grasses Adjustments for the Sagebrush Base Layer

There are no invasive species datasets from 2010 to the present (beyond the LANDFIRE data) that meet the three criteria (nationally consistent, known level of accuracy, and periodically updated) for use in the determination of the sagebrush base layer. For a description of how invasive species land cover will be incorporated in the sagebrush base layer in the future, see Section I.B.1.b., Monitoring Sagebrush Availability.

Sagebrush Restoration Adjustments for the Sagebrush Base Layer

There are no datasets from 2010 to the present that could provide additions to the sagebrush base layer from restoration treatments that meet the three criteria (nationally consistent, known level of accuracy, and periodically updated); therefore, no adjustments were made to the sagebrush base layer calculated from the LANDFIRE EVT (version 1.2) attributable to restoration activities since 2010. Successful restoration treatments before 2010 are assumed to have been captured in the LANDFIRE refresh.

b. Monitoring Sagebrush Availability

Monitoring Sagebrush Availability

Sagebrush availability will be updated annually by incorporating changes to the sagebrush base layer attributable to agriculture, urbanization, and wildfire. The monitoring schedule for the existing sagebrush base layer updates is as follows:

2010 Existing Sagebrush Base Layer = [Sagebrush EVT] minus [2006 Imperviousness Layer] minus [2009 and 2010 CDL] minus [2009/10 GeoMac Fires that are less than 1,000 acres] minus [2009/10 MTBS Fires that are greater than 1,000 acres, excluding unburned sagebrush islands within the perimeter] minus [Conifer Encroachment Layer]

2012 Existing Sagebrush Update = [2010 Existing Sagebrush Base Layer] minus [2011 Imperviousness Layer] minus [2011 and 2012 CDL] minus [2011/12 GeoMac Fires < 1,000 acres] minus [2011/12 MTBS Fires that are greater than 1,000 acres, excluding unburned sagebrush islands within the perimeter]

Monitoring Existing Sagebrush post 2012 = [Previous Existing Sagebrush Update Layer] minus [Imperviousness Layer (if new data are available)] minus [Next 2 years of CDL] minus [Next 2 years of GeoMac Fires < 1,000 acres] minus [Next 2 years of MTBS Fires that are greater than

1,000 acres, excluding unburned sagebrush islands within the perimeter] plus
[restoration/monitoring data provided by the field]

Monitoring Sagebrush Restoration

Restoration after fire, after agricultural conversion, after seedings of introduced grasses, or after treatments of pinyon pine and/or juniper are examples of updates to the sagebrush base layer that can add sagebrush vegetation back into sagebrush availability in the landscape. When restoration has been determined to be successful through rangewide, consistent, interagency fine- and site-scale monitoring, the polygonal data will be used to add sagebrush pixels back into the broad- and mid-scale sagebrush base layer.

Measure 1b: Context for Monitoring the Amount of Sagebrush in a Geographic Area of Interest

Measure 1b describes the amount of sagebrush on the landscape of interest compared with the amount of sagebrush the landscape of interest could ecologically support. Areas with the potential to support sagebrush were derived from the BpS data layer that describes sagebrush pre-EuroAmerican settlement (v1.2 of LANDFIRE).

The identification and spatial locations of natural plant communities (vegetation) that are believed to have existed on the landscape (BpS) were constructed based on an approximation of the historical (pre-EuroAmerican settlement) disturbance regime and how the historical disturbance regime operated on the current biophysical environment. BpS is composed of map units that are based on NatureServe (2011) terrestrial ecological systems classification.

The ecological systems within BpS used for this monitoring framework are those ecological systems that are capable of supporting sagebrush vegetation and of providing seasonal habitat for sage-grouse (Table 4). Ecological systems selected included sagebrush species or subspecies that are included in the HAF and listed in Attachment C.

The BpS layer does not have an associated accuracy assessment, given the lack of any reference data. Visual inspection of the BpS data, however, reveals inconsistencies in the labeling of pixels among LANDFIRE map zones. The reason for these inconsistencies is that the rule sets used to map a given ecological system will vary among map zones based on different physical, biological, disturbance, and atmospheric regimes of the region. These variances can result in artificial edges in the map. Metrics will be calculated, however, at broad spatial scales using BpS potential vegetation type, not small groupings or individual pixels. Therefore, the magnitude of these observable errors in the BpS layer will be minor compared with the size of the reporting units. Since BpS will be used to identify broad landscape patterns of dominant vegetation, these inconsistencies will have only a minor impact on the percent sagebrush availability calculation. *As with the LANDFIRE EVT, LANDFIRE BpS data are not designed to be used at a local level. LANDFIRE data should never be used at the 30m pixel level for reporting.*

In conclusion, sagebrush availability data will be used to inform effectiveness monitoring and initiate adaptive management actions as necessary. The 2010 estimate of sagebrush availability will serve as the base year, and an updated estimate for 2012 will be reported in 2014 after all datasets become available. The 2012 estimate will capture changes attributable to wildfire, agriculture, and urban development. Subsequent updates will always include new fire and agricultural data and new urban data when available. Restoration data that meet the criteria for adding sagebrush areas back into the sagebrush base layer will be factored in as data allow. Given data availability, there will be a 2-year lag (approximately) between when the estimate is generated and when the data used for the estimate become available (e.g., the 2014 sagebrush availability will be included in the 2016 estimate).

Future Plans

Geospatial data used to generate the sagebrush base layer will be available through the BLM's EGIS web portal and geospatial gateway or through the authoritative data source. Legacy datasets will be preserved so that trends may be calculated. Additionally, accuracy assessment data for all source datasets will be provided on the portal either spatially, where applicable, or through the metadata. Accuracy assessment information was deemed vital to help users understand the limitation of the sagebrush estimates; it will be summarized spatially by map zone and will be included in the portal.

LANDFIRE plans to begin a remapping effort in 2015. This remapping has the potential to improve the overall quality of data products greatly, primarily through the use of higher-quality remote sensing datasets. Additionally, the BLM and the Multi-Resolution Land Characteristics Consortium (MRLC) are working to improve the accuracy of vegetation map products for broad- and mid-scale analyses through the Grass/Shrub mapping effort. The Grass/Shrub mapping effort applies the Wyoming multiscale sagebrush habitat methodology (Homer et al. 2009) to depict spatially the fractional percent cover estimates for five components rangewide and West-wide. These five components are percent cover of sagebrush vegetation, percent bare ground, percent herbaceous vegetation (grass and forbs combined), annual vegetation, and percent shrubs. A benefit of the design of these fractional cover maps is that they facilitate monitoring "within" class variation (e.g., examination of declining trend in sagebrush cover for individual pixels). This "within" class variation can serve as one indicator of sagebrush quality that cannot be derived from LANDFIRE's EVT information. The Grass/Shrub mapping effort is not a substitute for fine-scale monitoring but will leverage fine-scale data to support the validation of the mapping products. An evaluation will be conducted to determine if either dataset is of great enough quality to warrant replacing the existing sagebrush layers. At the earliest, this evaluation will occur in 2018 or 2019, depending on data availability.

B.2. Habitat Degradation Monitoring (Measure 2)

The measure of habitat degradation will be calculated by combining the footprints of threats identified in Table 2. The footprint is defined as the direct area of influence of “active” energy and infrastructure; it is used as a surrogate for human activity. Although these analyses will try to summarize results at the aforementioned meaningful geographic areas of interest, some may be too small to report the metrics appropriately and may be combined (smaller populations, PACs within a population, etc.). Data sources for each threat are found in Table 6, Geospatial data sources for habitat degradation. Specific assumptions (inclusion criteria for data, width/area assumptions for point and line features, etc.) and methodology for each threat, and the combined measure, are detailed below. All datasets will be updated annually to monitor broad- and mid-scale year-to-year changes and to calculate trends in habitat degradation to inform adaptive management. A 5-year summary report will be provided to the USFWS.

a. Habitat Degradation Datasets and Assumptions

Energy (oil and gas wells and development facilities)

This dataset will compile information from three oil and gas databases: the proprietary IHS Enerdeq database, the BLM Automated Fluid Minerals Support System (AFMSS) database, and the proprietary Platts (a McGraw-Hill Financial Company) GIS Custom Data (hereafter, Platts) database of power plants. Point data from wells active within the last 10 years from IHS and producing wells from AFMSS will be considered as a 5-acre (2.0ha) direct area of influence centered on the well point, as recommended by the BLM WO-300 (Minerals and Realty Management). Plugged and abandoned wells will be removed if the date of well abandonment was before the first day of the reporting year (i.e., for the 2015 reporting year, a well must have been plugged and abandoned by 12/31/2014 to be removed). Platts oil and gas power plants data (subset to operational power plants) will also be included as a 5-acre (2.0ha) direct area of influence.

Additional Measure: Reclaimed Energy-related Degradation. This dataset will include those wells that have been plugged and abandoned. This measure thereby attempts to measure energy-related degradation that has been reclaimed but not necessarily fully restored to sage-grouse habitat. This measure will establish a baseline by using wells that have been plugged and abandoned within the last 10 years from the IHS and AFMSS datasets. Time lags for lek attendance in response to infrastructure have been documented to be delayed 2–10 years from energy development activities (Harju et al. 2010). Reclamation actions may require 2 or more years from the Final Abandonment Notice. Sagebrush seedling establishment may take 6 or more years from the point of seeding, depending on such variables as annual precipitation, annual temperature, and soil type and depth (Pyke 2011). This 10-year period is conservative and assumes some level of habitat improvement 10 years after plugging. Research by Hemstrom et al. (2002), however,

proposes an even longer period—more than 100 years—for recovery of sagebrush habitats, even with active restoration approaches. Direct area of influence will be considered 3 acres (1.2ha) (J. Perry, personal communication, February 12, 2014). This additional layer/measure could be used at the broad and mid scale to identify areas where sagebrush habitat and/or potential sagebrush habitat is likely still degraded. This layer/measure could also be used where further investigation at the fine or site scale would be warranted to: 1) quantify the level of reclamation already conducted, and 2) evaluate the amount of restoration still required for sagebrush habitat recovery. At a particular level (e.g., population, PACs), these areas and the reclamation efforts/success could be used to inform reclamation standards associated with future developments. Once these areas have transitioned from reclamation standards to meeting *restoration* standards, they can be added back into the sagebrush availability layer using the same methodology as described for adding restoration treatment areas lost to wildfire and agriculture conversion (see Monitoring Sagebrush Restoration in Section I.B.1.b., Monitoring Sagebrush Availability). This dataset will be updated annually from the IHS dataset.

Energy (coal mines)

Currently, there is no comprehensive dataset available that identifies the footprint of active coal mining across all jurisdictions. Therefore, point and polygon datasets will be used each year to identify coal mining locations. Data sources will be identified and evaluated annually and will include at a minimum: BLM coal lease polygons, U.S. Energy Information Administration mine occurrence points, U.S. Office of Surface Mining Reclamation and Enforcement coal mining permit polygons (as available), and U.S. Geological Survey (USGS) Mineral Resources Data System mine occurrence points. These data will inform where active coal mining may be occurring. Additionally, coal power plant data from Platts power plants database (subset to operational power plants) will be included. Aerial imagery will then be used to digitize manually the active coal mining and coal power plants surface disturbance in or near these known occurrence areas. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to locate (generally at 1:50,000 and below) and digitize (generally at 1:10,000 and below) active coal mine and power plant direct area of influence. Coal mine location data source and imagery date will be documented for each digitized coal polygon at the time of creation. Subsurface facility locations (polygon or point, location as available) will also be collected if available, included in density calculations, and added to the active surface activity layer as appropriate (if an actual direct area of influence can be located).

Energy (wind energy facilities)

This dataset will be a subset of the Federal Aviation Administration (FAA) Digital Obstacles point file. Points where “Type_” = “WINDMILL” will be included. Direct area of influence of these point features will be measured by converting to a polygon dataset as a direct area of

influence of 3 acres (1.2ha) centered on each tower point. See the BLM's "Wind Energy Development Programmatic Environmental Impact Statement" (BLM 2005). Additionally, Platts power plants database will be used for transformer stations associated with wind energy sites (subset to operational power plants), also with a 3-acre (1.2ha) direct area of influence.

Energy (solar energy facilities)

This dataset will include solar plants as compiled with the Platts power plants database (subset to operational power plants). This database includes an attribute that indicates the operational capacity of each solar power plant. Total capacity at the power plant was based on ratings of the in-service unit(s), in megawatts. Direct area of influence polygons will be centered over each point feature representing 7.3ac (3.0ha) per megawatt of the stated operational capacity, per the report of the National Renewable Energy Laboratory (NREL), "Land-Use Requirements for Solar Power Plants in the United States" (Ong et al. 2013).

Energy (geothermal energy facilities)

This dataset will include geothermal wells in existence or under construction as compiled with the IHS wells database and power plants as compiled with the Platts database (subset to operational power plants). Direct area of influence of these point features will be measured by converting to a polygon dataset of 3 acres (1.2ha) centered on each well or power plant point.

Mining (active developments; locatable, leasable, saleable)

This dataset will include active locatable mining locations as compiled with the proprietary InfoMine database. Aerial imagery will then be used to digitize manually the active mining surface disturbance in or near these known occurrence areas. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to locate (generally at 1:50,000 and below) and digitize (generally at 1:10,000 and below) active mine direct area of influence. Mine location data source and imagery date will be documented for each digitized polygon at the time of creation. Currently, there are no known compressive databases available for leasable or saleable mining sites beyond coal mines. Other data sources will be evaluated and used as they are identified or as they become available. Point data may be converted to polygons to represent direct area of influence unless actual surface disturbance is available.

Infrastructure (roads)

This dataset will be compiled from the proprietary Esri StreetMap Premium for ArcGIS. Dataset features that will be used are: Interstate Highways, Major Roads, and Surface Streets to capture most paved and "crowned and ditched" roads while not including "two-track" and 4-wheel-drive routes. These minor roads, while not included in the broad- and mid-scale monitoring, may support a volume of traffic that can have deleterious effects on sage-grouse leks. It may be

appropriate to consider the frequency and type of use of roads in a NEPA analysis for a proposed project. This fine- and site-scale analysis will require more site-specific data than is identified in this monitoring framework. The direct area of influence for roads will be represented by 240.2ft, 84.0ft, and 40.7ft (73.2m, 25.6m, and 12.4m) total widths centered on the line feature for Interstate Highways, Major Roads, and Surface Streets, respectively (Knick et al. 2011). The most current dataset will be used for each monitoring update. *Note: This is a related but different dataset than what was used in BER (Manier et al. 2013). Individual BLM/USFS planning units may use different road layers for fine- and site-scale monitoring.*

Infrastructure (railroads)

This dataset will be a compilation from the Federal Railroad Administration Rail Lines of the USA dataset. Non-abandoned rail lines will be used; abandoned rail lines will not be used. The direct area of influence for railroads will be represented by a 30.8ft (9.4m) total width (Knick et al. 2011) centered on the non-abandoned railroad line feature.

Infrastructure (power lines)

This line dataset will be derived from the proprietary Platts transmission lines database. Linear features in the dataset attributed as “buried” will be removed from the disturbance calculation. Only “In Service” lines will be used; “Proposed” lines will not be used. Direct area of influence will be determined by the kV designation: 1–199 kV (100ft/30.5m), 200–399 kV (150ft/45.7m), 400–699 kV (200ft/61.0m), and 700-or greater kV (250ft/76.2m) based on average right-of-way and structure widths, according to BLM WO-300 (Minerals and Realty Management).

Infrastructure (communication towers)

This point dataset will be compiled from the Federal Communications Commission (FCC) communication towers point file; all duplicate points will be removed. It will be converted to a polygon dataset by using a direct area of influence of 2.5 acres (1.0ha) centered on each communication tower point (Knick et al. 2011).

Infrastructure (other vertical structures)

This point dataset will be compiled from the FAA’s Digital Obstacles point file. Points where “Type_” = “WINDMILL” will be removed. Duplicate points from the FCC communication towers point file will be removed. Remaining features will be converted to a polygon dataset using a direct area of influence of 2.5 acres (1.0ha) centered on each vertical structure point (Knick et al. 2011).

Other Developed Rights-of-Way

Currently, no additional data sources for other rights-of-way have been identified; roads, power lines, railroads, pipelines, and other known linear features are represented in the categories

described above. The newly purchased IHS data do contain pipeline information; however, this database does not currently distinguish between above-ground and underground pipelines. If additional features representing human activities are identified, they will be added to monitoring reports using similar assumptions to those used with the threats described above.

b. Habitat Degradation Threat Combination and Calculation

The threats targeted for measuring human activity (Table 2) will be converted to direct area of influence polygons as described for each threat above. These threat polygon layers will be combined and features dissolved to create one overall polygon layer representing footprints of active human activity in the range of sage-grouse. Individual datasets, however, will be preserved to indicate which types of threats may be contributing to overall habitat degradation.

This measure has been divided into three submeasures to describe habitat degradation on the landscape. Percentages will be calculated as follows:

Measure 2a. Footprint by geographic area of interest: Divide area of the active/direct footprint by the total area of the geographic area of interest (% disturbance in geographic area of interest).

Measure 2b. Active/direct footprint by historical sagebrush potential: Divide area of the active footprint that coincides with areas with historical sagebrush potential (BpS calculation from habitat availability) within a given geographic area of interest by the total area with sagebrush potential within the geographic area of interest (% disturbance on potential historical sagebrush in geographic area of interest).

Measure 2c. Active/direct footprint by current sagebrush: Divide area of the active footprint that coincides with areas of existing sagebrush (EVT calculation from habitat availability) within a given geographic area of interest by the total area that is current sagebrush within the geographic area of interest (% disturbance on current sagebrush in geographic area of interest).

B.3. Energy and Mining Density (Measure 3)

The measure of density of energy and mining will be calculated by combining the locations of energy and mining threats identified in Table 2. This measure will provide an estimate of the intensity of human activity or the intensity of habitat degradation. The number of energy facilities and mining locations will be summed and divided by the area of meaningful geographic areas of interest to calculate density of these activities. Data sources for each threat are found in Table 6. Specific assumptions (inclusion criteria for data, width/area assumptions for point and line features, etc.) and methodology for each threat, and the combined measure, are detailed

below. All datasets will be updated annually to monitor broad- and mid-scale year-to-year changes and 5-year (or longer) trends in habitat degradation.

Table 6. Geospatial data sources for habitat degradation (Measure 2).

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
Energy (oil & gas)	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
Energy (coal)	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Energy (wind)	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
Energy (solar)	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/MW	NREL
Energy (geothermal)	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Mining	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
Infrastructure (roads)	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
Infrastructure (railroads)	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
Infrastructure (power lines)	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
Infrastructure (communication)	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

a. Energy and Mining Density Datasets and Assumptions

Energy (oil and gas wells and development facilities)

(See Section I.B.2., Habitat Degradation Monitoring.)

Energy (coal mines)

(See Section I.B.2., Habitat Degradation Monitoring.)

Energy (wind energy facilities)

(See Section I.B.2., Habitat Degradation Monitoring.)

Energy (solar energy facilities)

(See Section I.B.2., Habitat Degradation Monitoring.)

Energy (geothermal energy facilities)

(See Section I.B.2., Habitat Degradation Monitoring.)

Mining (active developments; locatable, leasable, saleable)

(See Section I.B.2., Habitat Degradation Monitoring.)

b. Energy and Mining Density Threat Combination and Calculation

Datasets for energy and mining will be collected in two primary forms: point locations (e.g., wells) and polygon areas (e.g., surface coal mining). The following rule set will be used to calculate density for meaningful geographic areas of interest including standard grids and per polygon:

- 1) Point locations will be preserved; no additional points will be removed beyond the methodology described above. Energy facilities in close proximity (an oil well close to a wind tower) will be retained.
- 2) Polygons will not be merged, or features further dissolved. Thus, overlapping facilities will be retained, such that each individual threat will be a separate polygon data input for the density calculation.
- 3) The analysis unit (polygon or 640-acre section in a grid) will be the basis for counting the number of mining or energy facilities per unit area. Within the analysis unit, all point features will be summed, and any individual polygons will be counted as one (e.g., a coal mine will be counted as one facility within population). Where polygon features overlap multiple units (polygons or pixels), the facility will be counted as one in each unit where the polygon occurs (e.g., a polygon crossing multiple 640-acre

sections would be counted as one in each 640-acre section for a density per 640-acre-section calculation).

- 4) In methodologies with different-sized units (e.g., MZs, populations, etc.) raw facility counts will be converted to densities by dividing the raw facility counts by the total area of the unit. Typically this will be measured as facilities per 640 acres.
- 5) For uniform grids, raw facility counts will be reported. Typically this number will also be converted to facilities per 640 acres.
- 6) Reporting may include summaries beyond the simple ones above. Zonal statistics may be used to smooth smaller grids to help display and convey information about areas within meaningful geographic areas of interest that have high levels of energy and/or mining activity.
- 7) Additional statistics for each defined unit may also include adjusting the area to include only the area with the historical potential for sagebrush (BpS) or areas currently sagebrush (EVT).

Individual datasets and threat combination datasets for habitat degradation will be available through the BLM's EGIS web portal and geospatial gateway. Legacy datasets will be preserved so that trends may be calculated.

C. Population (Demographics) Monitoring

State wildlife management agencies are responsible for monitoring sage-grouse populations within their respective states. WAFWA will coordinate this collection of annual population data by state agencies. These data will be made available to the BLM according to the terms of the forthcoming Greater Sage-Grouse Population Monitoring Memorandum of Understanding (MOU) (2014) between WAFWA and the BLM. The MOU outlines a process, timeline, and responsibilities for regular data sharing of sage-grouse population and/or habitat information for the purposes of implementing sage-grouse LUPs/amendments and subsequent effectiveness monitoring. Population areas were refined from the "Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report" (COT 2013) by individual state wildlife agencies to create a consistent naming nomenclature for future data analyses. These population data will be used for analysis at the applicable scale to supplement habitat effectiveness monitoring of management actions and to inform the adaptive management responses.

D. Effectiveness Monitoring

Effectiveness monitoring will provide the data needed to evaluate BLM and USFS actions toward reaching the objective of the national planning strategy (BLM IM 2012-044)—to conserve sage-grouse populations and their habitat—and the objectives for the land use planning

area. Effectiveness monitoring methods described here will encompass multiple larger scales, from areas as large as the WAFWA MZ to the scale of this LUP. Effectiveness data used for these larger-scale evaluations will include all lands in the area of interest, regardless of surface ownership/management, and will help inform where finer-scale evaluations are needed, such as population areas smaller than an LUP or PACs within an LUP (described in Section II, Fine and Site Scales). Data will also include the trend of disturbance within these areas of interest to inform the need to initiate adaptive management responses as described in the land use plan.

Effectiveness monitoring reported for these larger areas provides the context to conduct effectiveness monitoring at finer scales. This approach also helps focus scarce resources to areas experiencing habitat loss, degradation, or population declines, without excluding the possibility of concurrent, finer-scale evaluations as needed where habitat or population anomalies have been identified through some other means.

To determine the effectiveness of the sage-grouse national planning strategy, the BLM and the USFS will evaluate the answers to the following questions and prepare a broad- and mid-scale effectiveness report:

- 1) Sagebrush Availability and Condition:
 - a. What is the amount of sagebrush availability and the change in the amount and condition of sagebrush?
 - b. What is the existing amount of sagebrush on the landscape and the change in the amount relative to the pre-EuroAmerican historical distribution of sagebrush (BpS)?
 - c. What is the trend and condition of the indicators describing sagebrush characteristics important to sage-grouse?
- 2) Habitat Degradation and Intensity of Activities:
 - a. What is the amount of habitat degradation and the change in that amount?
 - b. What is the intensity of activities and the change in the intensity?
 - c. What is the amount of reclaimed energy-related degradation and the change in the amount?
- 3) What is the population estimation of sage-grouse and the change in the population estimation?
- 4) How are the BLM and the USFS contributing to changes in the amount of sagebrush?
- 5) How are the BLM and the USFS contributing to disturbance?

The compilation of broad- and mid-scale data (and population trends as available) into an effectiveness monitoring report will occur on a 5-year reporting schedule (see Attachment A), which may be accelerated to respond to critical emerging issues (in consultation with the USFWS and state wildlife agencies). In addition, effectiveness monitoring results will be used to identify emerging issues and research needs and inform the BLM and the USFS adaptive

management strategy (see the adaptive management section of this Environmental Impact Statement).

To determine the effectiveness of the sage-grouse objectives of the land use plan, the BLM and the USFS will evaluate the answers to the following questions and prepare a plan effectiveness report:

- 1) Is this plan meeting the sage-grouse habitat objectives?
- 2) Are sage-grouse areas within the LUP meeting, or making progress toward meeting, land health standards, including the Special Status Species/wildlife habitat standard?
- 3) Is the plan meeting the disturbance objective(s) within sage-grouse areas?
- 4) Are the sage-grouse populations within this plan boundary and within the sage-grouse areas increasing, stable, or declining?

The effectiveness monitoring report for this LUP will occur on a 5-year reporting schedule (see Attachment A) or more often if habitat or population anomalies indicate the need for an evaluation to facilitate adaptive management or respond to critical emerging issues. Data will be made available through the BLM's EGIS web portal and the geospatial gateway.

Methods

At the broad and mid scales (PACs and above) the BLM and the USFS will summarize the vegetation, disturbance, and (when available) population data. Although the analysis will try to summarize results for PACs within each sage-grouse population, some populations may be too small to report the metrics appropriately and may need to be combined to provide an estimate with an acceptable level of accuracy. Otherwise, they will be flagged for more intensive monitoring by the appropriate landowner or agency. The BLM and the USFS will then analyze monitoring data to detect the trend in the amount of sagebrush; the condition of the vegetation in the sage-grouse areas (MacKinnon et al. 2011); the trend in the amount of disturbance; the change in disturbed areas owing to successful restoration; and the amount of new disturbance the BLM and/or the USFS has permitted. These data could be supplemented with population data (when available) to inform an understanding of the correlation between habitat and PACs within a population. This overall effectiveness evaluation must consider the lag effect response of populations to habitat changes (Garton et al. 2011).

Calculating Question 1, National Planning Strategy Effectiveness: The amount of sagebrush available in the large area of interest will use the information from Measure 1a (I.B.1., Sagebrush Availability) and calculate the change from the 2012 baseline to the end date of the reporting period. To calculate the change in the amount of sagebrush on the landscape to compare with the historical areas with potential to support sagebrush, the information from Measure 1b (I.B.1., Sagebrush Availability) will be used. To calculate the trend in the condition of sagebrush at the mid scale, three sources of data will be used: the BLM's Grass/Shrub mapping effort (Future Plans in Section I.B.1., Sagebrush Availability); the results from the calculation of the landscape

indicators, such as patch size (described below); and the BLM's Landscape Monitoring Framework (LMF) and sage-grouse intensification effort (also described below). The LMF and sage-grouse intensification effort data are collected in a statistical sampling framework that allows calculation of indicator values at multiple scales.

Beyond the importance of sagebrush availability to sage-grouse, the mix of sagebrush patches on the landscape at the broad and mid scale provides the life requisite of space for sage-grouse dispersal needs (see the HAF). The configuration of sagebrush habitat patches and the land cover or land use between the habitat patches at the broad and mid scales also defines suitability. There are three significant habitat indicators that influence habitat use, dispersal, and movement across populations: the size and number of habitat patches, the connectivity of habitat patches (linkage areas), and habitat fragmentation (scope of unsuitable and non-habitats between habitat patches). The most appropriate commercial software to measure patch dynamics, connectivity, and fragmentation at the broad and mid scales will be used, along with the same data layers derived for sagebrush availability.

The BLM initiated the LMF in 2011 in cooperation with the Natural Resources Conservation Service (NRCS). The objective of the LMF effort is to provide unbiased estimates of vegetation and soil condition and trend using a statistically balanced sample design across BLM lands. Recognizing that sage-grouse populations are more resilient where the sagebrush plant community has certain characteristics unique to a particular life stage of sage-grouse (Knick and Connelly 2011, Stiver et al. *in press*), a group of sage-grouse habitat and sagebrush plant community subject matter experts identified those vegetation indicators collected at LMF sampling points that inform sage-grouse habitat needs. The experts represented the Agricultural Research Service, BLM, NRCS, USFWS, WAFWA, state wildlife agencies, and academia. The common indicators identified include: species composition, foliar cover, height of the tallest sagebrush and herbaceous plant, intercanopy gap, percent of invasive species, sagebrush shape, and bare ground. To increase the precision of estimates of sagebrush conditions within the range of sage-grouse, additional plot locations in occupied sage-grouse habitat (Sage-Grouse Intensification) were added in 2013. The common indicators are also collected on sampling locations in the NRCS National Resources Inventory Rangeland Resource Assessment (<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/?cid=stelprdb1041620>).

The sage-grouse intensification baseline data will be collected over a 5-year period, and an annual sage-grouse intensification report will be prepared describing the status of the indicators. Beginning in year 6, the annual status report will be accompanied with a trend report, which will be available on an annual basis thereafter, contingent on continuation of the current monitoring budget. This information, in combination with the Grass/Shrub mapping information, the mid-scale habitat suitability indicator measures, and the sagebrush availability information will be used to answer Question 1 of the National Planning Strategy Effectiveness Report.

Calculating Question 2, National Planning Strategy Effectiveness: Evaluations of the amount of habitat degradation and the intensity of the activities in the area of interest will use the information from Measure 2 (Section I.B.2., Habitat Degradation Monitoring) and Measure 3 (Section I.B.3., Energy and Mining Density). The field office will collect data on the amount of reclaimed energy-related degradation on plugged and abandoned oil/gas well sites. The data are expected to demonstrate that the reclaimed sites have yet to meet the habitat restoration objectives for sage-grouse habitat. This information, in combination with the amount of habitat degradation, will be used to answer Question 2 of the National Planning Strategy Effectiveness Report.

Calculating Question 3, National Planning Strategy Effectiveness: The change in sage-grouse estimated populations will be calculated from data provided by the state wildlife agencies, when available. This population data (Section I.C., Population [Demographics] Monitoring) will be used to answer Question 3 of the National Planning Strategy Effectiveness Report.

Calculating Question 4, National Planning Strategy Effectiveness: The estimated contribution by the BLM or the USFS to the change in the amount of sagebrush in the area of interest will use the information from Measure 1a (Section I.B.1., Sagebrush Availability). This measure is derived from the national datasets that remove sagebrush (Table 3). To determine the relative contribution of BLM and USFS management, the current Surface Management Agency geospatial data layer will be used to differentiate the amount of change for each management agency for this measure in the geographic areas of interest. This information will be used to answer Question 4 of the National Planning Strategy Effectiveness Report.

Calculating Question 5, National Planning Strategy Effectiveness: The estimated contribution by the BLM or the USFS to the change in the amount of disturbance in the area of interest will use the information from Measure 2a (Section I.B.2., Monitoring Habitat Degradation) and Measure 3 (Section I.B.3., Energy and Mining Density). These measures are all derived from the national disturbance datasets that degrade habitat (Table 6). To determine the relative contribution of BLM and USFS management, the current Surface Management Agency geospatial data layer will be used to differentiate the amount of change for each management agency for these two measures in the geographic areas of interest. This information will be used to answer Question 5 of the National Planning Strategy Effectiveness Report.

Answers to the five questions for determining the effectiveness of the national planning strategy will identify areas that appear to be meeting the objectives of the strategy and will facilitate identification of population areas for more detailed analysis. Conceptually, if the broad-scale monitoring identifies increasing sagebrush availability and improving vegetation conditions, decreasing disturbance, and a stable or increasing population for the area of interest, there is evidence that the objectives of the national planning strategy to maintain populations and their habitats have been met. Conversely, where information indicates that sagebrush is decreasing and vegetation conditions are degrading, disturbance in sage-grouse areas is increasing, and/or

populations are declining relative to the baseline, there is evidence that the objectives of the national planning strategy are not being achieved. Such a determination would likely result in a more detailed analysis and could be the basis for implementing more restrictive adaptive management measures.

With respect to the land use plan area, the BLM and the USFS will summarize the vegetation, disturbance, and population data to determine if the LUP is meeting the plan objectives. Effectiveness information used for these evaluations includes BLM/USFS surface management areas and will help inform where finer-scale evaluations are needed, such as seasonal habitats, corridors, or linkage areas. Data will also include the trend of disturbance within the sage-grouse areas, which will inform the need to initiate adaptive management responses as described in the land use plan.

Calculating Question 1, Land Use Plan Effectiveness: The condition of vegetation and the allotments meeting land health standards (as articulated in “BLM Handbook 4180-1, Rangeland Health Standards”) in sage-grouse areas will be used to determine the LUP’s effectiveness in meeting the vegetation objectives for sage-grouse habitat set forth in the plan. The field office/ranger district will be responsible for collecting this data. In order for this data to be consistent and comparable, common indicators, consistent methods, and an unbiased sampling framework will be implemented following the principles in the BLM’s AIM strategy (Taylor et al. 2014; Toevs et al. 2011; MacKinnon et al. 2011), in the BLM’s Technical Reference “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005), and in the HAF (Stiver et al. *in press*) or other approved WAFWA MZ-consistent guidance to measure and monitor sage-grouse habitats. This information will be used to answer Question 1 of the Land Use Plan Effectiveness Report.

Calculating Question 2, Land Use Plan Effectiveness: Sage-grouse areas within the LUP that are achieving land health stands (or, if trend data are available, that are making progress toward achieving them)—particularly the Special Status Species/wildlife habitat land health standard—will be used to determine the LUP’s effectiveness in achieving the habitat objectives set forth in the plan. Field offices will follow directions in “BLM Handbook 4180-1, Rangeland Health Standards,” to ascertain if sage-grouse areas are achieving or making progress toward achieving land health standards. One of the recommended criteria for evaluating this land health standard is the HAF indicators.

Calculating Question 3, Land Use Plan Effectiveness: The amount of habitat disturbance in sage-grouse areas identified in this LUP will be used to determine the LUP’s effectiveness in meeting the plan’s disturbance objectives. National datasets can be used to calculate the amount of disturbance, but field office data will likely increase the accuracy of this estimate. This information will be used to answer Question 3 of the Land Use Plan Effectiveness Report.

Calculating Question 4, Land Use Plan Effectiveness: The change in estimated sage-grouse populations will be calculated from data provided by the state wildlife agencies, when available, and will be used to determine LUP effectiveness. This population data (Section I.C., Population [Demographics] Monitoring) will be used to answer Question 4 of the Land Use Plan Effectiveness Report.

Results of the effectiveness monitoring process for the LUP will be used to inform the need for finer-scale investigations, initiate adaptive management actions as described in the land use plan, initiate causation determination, and/or determine if changes to management decisions are warranted. The measures used at the broad and mid scales will provide a suite of characteristics for evaluating the effectiveness of the adaptive management strategy.

II. FINE AND SITE SCALES

Fine-scale (third-order) habitat selected by sage-grouse is described as the physical and geographic area within home ranges during breeding, summer, and winter periods. At this level, habitat suitability monitoring should address factors that affect sage-grouse use of, and movements between, seasonal use areas. The habitat monitoring at the fine and site scale (fourth order) should focus on indicators to describe seasonal home ranges for sage-grouse associated with a lek or lek group within a population or subpopulation area. Fine- and site-scale monitoring will inform LUP effectiveness monitoring (see Section I.D., Effectiveness Monitoring) and the hard and soft triggers identified in the LUP's adaptive management section.

Site-scale habitat selected by sage-grouse is described as the more detailed vegetation characteristics of seasonal habitats. Habitat suitability characteristics include canopy cover and height of sagebrush and the associated understory vegetation. They also include vegetation associated with riparian areas, wet meadows, and other mesic habitats adjacent to sagebrush that may support sage-grouse habitat needs during different stages in their annual cycle.

As described in the Conclusion (Section III), details and application of monitoring at the fine and site scales will be described in the implementation-level monitoring plan for the land use plan. The need for fine- and site-scale-specific habitat monitoring will vary by area, depending on proposed projects, existing conditions, habitat variability, threats, and land health. Examples of fine- and site-scale monitoring include: habitat vegetation monitoring to assess current habitat conditions; monitoring and evaluation of the success of projects targeting sage-grouse habitat enhancement and/or restoration; and habitat disturbance monitoring to provide localized disturbance measures to inform proposed project review and potential mitigation for project impacts. Monitoring plans should incorporate the principles outlined in the BLM's AIM strategy (Tóevs et al. 2011) and in "AIM-Monitoring: A Component of the Assessment, Inventory, and Monitoring Strategy" (Taylor et al. 2014). Approved monitoring methods are:

- “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011);
- The BLM’s Technical Reference “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005); and,
- “Sage-Grouse Habitat Assessment Framework: Multiscale Assessment Tool” (Stiver et al. *in press*).

Other state-specific disturbance tracking models include: the BLM’s Wyoming Density and Disturbance Calculation Tool (<http://ddct.wygisc.org/>) and the BLM’s White River Data Management System in development with the USGS. Population monitoring data (in cooperation with state wildlife agencies) should be included during evaluation of the effectiveness of actions taken at the fine and site scales.

Fine- and site-scale sage-grouse habitat suitability indicators for seasonal habitats are identified in the HAF. The HAF has incorporated the Connelly et al. (2000) sage-grouse guidelines as well as many of the core indicators in the AIM strategy (Toeys et al. 2011). There may be a need to develop adjustments to height and cover or other site suitability values described in the HAF; any such adjustments should be ecologically defensible. To foster consistency, however, adjustments to site suitability values at the local scale should be avoided unless there is strong, scientific justification for making those adjustments. That justification should be provided. WAFWA MZ adjustments must be supported by regional plant productivity and habitat data for the floristic province. If adjustments are made to the site-scale indicators, they must be made using data from the appropriate seasonal habitat designation (breeding/nesting, brood-rearing, winter) collected from sage-grouse studies found in the relevant area and peer-reviewed by the appropriate wildlife management agency(ies) and researchers.

When conducting land health assessments, the BLM should follow, at a minimum, “Interpreting Indicators of Rangeland Health” (Pellant et al. 2005) and the “BLM Core Terrestrial Indicators and Methods” (MacKinnon et al. 2011). For assessments being conducted in sage-grouse designated management areas, the BLM should collect additional data to inform the HAF indicators that have not been collected using the above methods. Implementation of the principles outlined in the AIM strategy will allow the data to be used to generate unbiased estimates of condition across the area of interest; facilitate consistent data collection and rollup analysis among management units; help provide consistent data to inform the classification and interpretation of imagery; and provide condition and trend of the indicators describing sagebrush characteristics important to sage-grouse habitat (see Section I.D., Effectiveness Monitoring).

III. CONCLUSION

This Greater Sage-Grouse Monitoring Framework was developed for all of the Final Environmental Impact Statements involved in the sage-grouse planning effort. As such, it describes the monitoring activities at the broad and mid scales and provides a guide for the BLM and the USFS to collaborate with partners/other agencies to develop the land use plan- specific monitoring plan.

IV. THE GREATER SAGE-GROUSE DISTURBANCE AND MONITORING SUBTEAM MEMBERSHIP

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Attachment A. An Overview of Monitoring Commitments

	Broad and Mid Scales					Fine and Site Scales
	Implement- ation	Sagebrush Availability	Habitat Degradation	Population	Effectiveness	
<i>How will the data be used?</i>	Track and document implementation of land use plan decisions and inform adaptive management	Track changes in land cover (sagebrush) and inform adaptive management	Track changes in disturbance (threats) to sage-grouse habitat and inform adaptive management	Track trends in sage-grouse populations (and/or leks; as determined by state wildlife agencies) and inform adaptive management	Characterize the relationship among disturbance, implementation actions, and sagebrush metrics and inform adaptive management	Measure seasonal habitat, connectivity at the fine scale, and habitat conditions at the site scale, calculate disturbance, and inform adaptive management
<i>Who is collecting the data?</i>	BLM FO and USFS Forest	NOC and NIFC	National datasets (NOC), BLM FOs, and USFS Forests as applicable	State wildlife agencies through WAFWA	Comes from other broad- and mid-scale monitoring types, analyzed by the NOC	BLM FO and SO, USFS Forests and RO (with partners)
<i>How often are the data collected, reported, and made available to USFWS?</i>	Collected and reported annually; summary report every 5 years	Updated and changes reported annually; summary report every 5 years	Collected and changes reported annually; summary report every 5 years	State data reported annually per WAFWA MOU; summary report every 5 years	Collected and reported every 5 years (coincident with LUP evaluations)	Collection and trend analysis ongoing, reported every 5 years or as needed to inform adaptive management
<i>What is the spatial scale?</i>	Summarized by LUP with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by PACs (size dependent) with flexibility for reporting by other units	Summarized by MZ and LUP with flexibility for reporting by other units (e.g., PAC)	Variable (e.g., projects and seasonal habitats)
<i>What are the potential personnel and budget impacts?</i>	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment	At a minimum, current skills and capacity must be maintained; data management costs are TBD	At a minimum, current skills and capacity must be maintained; data layer purchase cost are TBD	No additional personnel or budget impacts for the BLM or the USFS	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment	Additional capacity or re-prioritization of ongoing monitoring work and budget realignment

<i>Who has primary and secondary responsibilities for reporting?</i>	1) BLM FO & SO; USFS Forest & RO 2) BLM & USFS Planning	1) NOC 2) WO	1) NOC 2) BLM SO, USFS RO, & appropriate programs	1) WAFWA & state wildlife agencies 2) BLM SO, USFS RO, NOC	1) Broad and mid scale at the NOC, LUP at BLM SO, USFS RO	1) BLM FO & USFS Forests 2) BLM SO & USFS RO
<i>What new processes/tools are needed?</i>	National implementation datasets and analysis tools	Updates to national land cover data	Data standards and rollup methods for these data	Standards in population monitoring (WAFWA)	Reporting methodologies	Data standards data storage; and reporting

FO (field office); NIFC (National Interagency Fire Center); NOC (National Operations Center); RO (regional office); SO (state office); TBD (to be determined); WO (Washington Office)

Attachment B. User and Producer Accuracies for Aggregated Ecological Systems within LANDFIRE Map Zones

LANDFIRE Map Zone Name	User Accuracy	Producer Accuracy	% of Map Zone within Historical Schroeder
Wyoming Basin	76.9%	90.9%	98.5%
SNAKE RIVER PLAIN	68.8%	85.2%	98.4%
Missouri River Plateau	57.7%	100.0%	91.3%
Grand Coulee Basin of the Columbia Plateau	80.0%	80.0%	89.3%
Wyoming Highlands	75.3%	85.9%	88.1%
Western Great Basin	69.3%	75.4%	72.9%
Blue Mountain Region of the Columbia Plateau	85.7%	88.7%	72.7%
Eastern Great Basin	62.7%	80.0%	62.8%
Northwestern Great Plains	76.5%	92.9%	46.3%
Northern Rocky Mountains	72.5%	89.2%	42.5%
Utah High Plateaus	81.8%	78.3%	41.5%
Colorado Plateau	65.3%	76.2%	28.8%
Middle Rocky Mountains	78.6%	73.3%	26.4%
Cascade Mountain Range	57.1%	88.9%	17.3%
Sierra Nevada Mountain Range	0.0%	0.0%	12.3%
Northwestern Rocky Mountains	66.7%	60.0%	7.3%
Southern Rocky Mountains	58.6%	56.7%	7.0%
Northern Cascades	75.0%	75.0%	2.6%
Mogollon Rim	66.7%	100.0%	1.7%
Death Valley Basin	0.0%	0.0%	1.2%

There are two anomalous map zones with 0% user and producer accuracies, attributable to no available reference data for the ecological systems of interest.

User accuracy is a map-based accuracy that is computed by looking at the reference data for a class and determining the percentage of correct predictions for these samples. For example, if I select any sagebrush pixel on the classified map, what is the probability that I'll be standing in a sagebrush stand when I visit that pixel location in the field? *Commission Error* equates to including a pixel in a class when it should have been excluded (i.e., commission error = $1 - \text{user's accuracy}$).

Producer accuracy is a reference-based accuracy that is computed by looking at the predictions produced for a class and determining the percentage of correct predictions. In other words, if I know that a particular area is sagebrush (I've been out on the ground to check), what is the probability that the digital map will correctly identify that pixel as sagebrush? *Omission Error* equates to excluding a pixel that should have been included in the class (i.e., omission error = $1 - \text{producer's accuracy}$).

Attachment C. Sagebrush Species and Subspecies Included in the Selection Criteria for Building the EVT and BpS Layers

- *Artemisia arbuscula* subspecies *longicaulis*
- *Artemisia arbuscula* subspecies *longiloba*
- *Artemisia bigelovii*
- *Artemisia nova*
- *Artemisia papposa*
- *Artemisia pygmaea*
- *Artemisia rigida*
- *Artemisia spinescens*
- *Artemisia tripartita* subspecies *rupicola*
- *Artemisia tripartita* subspecies *tripartita*
- *Tanacetum nuttallii*
- *Artemisia cana* subspecies *bolanderi*
- *Artemisia cana* subspecies *cana*
- *Artemisia cana* subspecies *viscidula*
- *Artemisia tridentata* subspecies *wyomingensis*
- *Artemisia tridentata* subspecies *tridentata*
- *Artemisia tridentata* subspecies *vaseyana*
- *Artemisia tridentata* subspecies *spiciformis*
- *Artemisia tridentata* subspecies *xericensis*
- *Artemisia tridentata* variety *pauciflora*
- *Artemisia frigida*
- *Artemisia pedatifida*

Questions from Senator Lisa Murkowski

Question 1: What are the agencies doing to engage stakeholders and state representatives prior to finalization of any guidance documents?

The Forest Service (FS) is working on numerous levels with states and stakeholders on guidance documents for implementation of greater sage-grouse conservation efforts. The guides are being developed with complete transparency and the Forest Service fully encourages input from stakeholders.

In Idaho, Wyoming, Utah, and Nevada, the FS has created state-based liaisons who work directly with their respective state working groups to review the documents and address concerns. FS is drafting new Memoranda of Understanding (MOU) to formalize the communication and information transfer between the FS and states. For example, in April 2016, the Humboldt-Toiyabe National Forest signed a MOU with the Nevada Department of Natural Resources and Conservation and the Bureau of Land Management Nevada and California State Offices that describes the strategy and process for inter-agency implementation of Nevada's Conservation Credit System. At another level, FS directors and leadership participate on the Western Governors Association (WGA) sage-grouse task force. The FS has solicited input from the task force members on guidance documents.

The guidance documents do not establish new policy, but chart a course for implementation within the framework provided by the Records of Decisions (RODs) approving amendments to applicable land management plans for the conservation of the greater sage-grouse. The environmental analyses leading to the RODs allowed for full engagement of the public. The FS views the implementation guides as "living documents" to be updated and modified as necessary, within the framework of the RODs. The guidance documents, along with other information, are posted on the following website:

<http://www.fs.fed.us/science-technology/fish-wildlife-plants/sage-grouse/implementation-guide>

Question 2: You largely gloss over the threat of invasive species to the sage grouse, yet one of the primary threats to grouse habitat is encroachment by cheatgrass and other non-native grasses. How is the Forest Service coordinating with state agencies, universities, and others who are having much greater success in cheatgrass control programs?

The Forest Service recognizes the significant threat invasive plants pose to greater sage-grouse habitat, and the broader sagebrush ecosystem across the West, which supports over 300 species in addition to the sage-grouse. We are working very closely with other federal agencies, states, tribes, universities, non-government organizations, and the private sector to address invasive plants across the West, including cheatgrass. We are working particularly on ways to increase our collective ability to prevent the introduction of invasive plants, control and eradicate established ones, and restore degraded areas back to the native plant communities necessary for the conservation of the sage-grouse and other sagebrush-dependent species.

Cheatgrass is one example of the targeted high-priority invasive plant species we have identified for increased research and management action. Invasive annual grasses, such as cheatgrass and medusahead rye, are primary driving forces behind the increase in wildfire intensity and frequency and the resulting impacts of catastrophic wildfire in the sagebrush biome. Coupled with the risk from invasive annual grasses are a suite of over 40 high risk invasive forbs and grasses which also threaten the habitat for the sage-grouse and other sagebrush obligate wildlife species. In support of this issue, the Forest Service worked closely with the Western Association of Fish and Wildlife Agencies to publish an assessment of invasive plant management programs at the local, state, and federal levels across the 11-state range of the sage-grouse. The report not only documents the risk from species such as cheatgrass, it also identifies challenges and barriers to addressing the invasive plant threat to the sagebrush ecosystem, and recommends critical steps to take to overcome those barriers. Universities, non-government organizations, state agencies, tribes, and other federal agencies have continued to work closely with the Forest Service to improve our collective efforts against invasive plants across the West and beyond.

The Forest Service collaborates closely with the weed science and sagebrush restoration community within the university and private sectors, and every tool and technique we utilize to address invasive species prevention and control has its origins in soundly applied research and development programs. For example, we are working with partners to expand our best management practices for fire and fuels management that benefit sage-grouse conservation and slow the expansion of invasive plants. Many of these invasive plant prevention and control practices have been incorporated into land management plans. At the local level, the Forest Service continues to complete Fire and Invasive Species Assessments (FIATS) to determine priorities for fuel treatment and restoration.

The Forest Service is also working collaboratively through the Western Invasive Weed Summit Action Plan Team to identify and prioritize invasive weed prevention, control, and post fire restoration work to benefit sage-grouse habitat. One product of this work is a risk matrix for the Great Basin that can help identify lands that are at the greatest risk of invasion, and lands where we may have the greatest chance of successfully restoring native vegetation after a fire. This matrix is a direct result of a partnership with the Western Invasive Weed Summit Action Plan Team, state agencies, USGS, DOI, NRCS, and others.

More broadly, the Forest Service—under USDA leadership—is involved in interagency efforts to combat invasive species that is being coordinated by the National Invasive Species Council (NISC). The NISC recently released an Early Detection and Rapid Response (EDRR) Framework with recommendations for improving how invasive species threats are identified and responded to. This emphasis on early detection and rapid response may save the Federal governments and its partners money because of the high costs associated with invasive species containment and control after establishment. The EDRR Framework provides useful recommendations that can help the Forest Service and others prevent the establishment of the next cheatgrass-like threat. The EDRR Framework, which incorporated input from stakeholders, described in its forward as follows: “This national EDRR Framework proposes to connect efforts among a diverse array of stakeholders at multiple scales. It emphasizes a shared, renewed focus on coordination and partnerships, science and technology, and strategic on-the-ground action to

reduce the threat of invasive species and help protect the Nation's lands and waters, as well as the livelihoods that rely upon them."

Question 3: Mitigation is a significant part of both the BLM and Forest Service's plans. **Will the Forest Service be using the same mitigation benchmarks and requirements as the BLM?**

When moving forward with mitigation, the FS must first be consistent with any mitigation benchmarks and requirements established by the RODs. Within the framework established by the RODs, the FS plans to adopt state-based approaches to mitigation, while working toward a landscape scale approach that is as consistent, as possible, with all state strategies. For example, consistent with our legal authorities, the FS has agreed to use the Nevada Conservation Credit System for mitigation. The FS is concurrently participating in a multi-agency and multiple state effort hosted by the BLM to develop a collaborative mitigation strategy for the greater sage-grouse. The FS will follow the mitigation requirements of avoiding and minimizing negative impacts to sagebrush habitats. If residual effects exist after these requirements, then compensatory mitigation may be required. State strategies and systems for compensatory mitigation can be used to the extent that they are consistent with FS authorities.

Questions from Senator John Barrasso

Question 1: Your testimony concentrated on a number of threats to sage grouse, but you largely glossed over the threat that invasive species pose to the bird and the greater ecosystem. **How is the Forest Service coordinating with state agencies, universities, and other entities that are having much greater success than the agency in cheatgrass control programs?**

The Forest Service recognizes the significant threat invasive plants pose to greater sage-grouse habitat, and the broader sagebrush ecosystem across the West. We are working very closely with other federal agencies, states, tribes, universities, non-government organizations, and the private sector to address invasive plants across the West, including cheatgrass. More specifically, we are working on ways to increase our collective ability to prevent and control invasive plants and to restore degraded areas back to the native plant communities necessary for the conservation and recovery of the sage-grouse.

Cheatgrass is one example of the targeted high-priority invasive plant species we have identified for increased research and management action. Invasive annual grasses, such as cheatgrass and medusahead rye, are primary driving forces behind the increase in wildfire intensity and frequency and the resulting impacts of catastrophic wildfire in the sagebrush biome. Coupled with the risk from invasive annual grasses are a suite of over 40 high risk invasive forbs and grasses which also threaten the habitat for the sage-grouse and other sagebrush obligate wildlife species. In support of this issue, the Forest Service worked closely with the Western Association of Fish and Wildlife Agencies to publish an assessment of invasive plant management programs at the local, state, and federal levels across the 11-state range of the sage-grouse. The report not only documents the risk from species such as cheatgrass, it also identifies challenges and barriers to addressing the invasive plant threat to the sagebrush ecosystem, and recommends critical steps to take to overcome those barriers. Universities, non-government organizations, state agencies,

tribes, and other federal agencies have continued to work closely with the Forest Service to improve our collective efforts against invasive plants across the West and beyond.

The Forest Service collaborates closely with the weed science and sagebrush restoration community within the university and private sectors, every tool and technique we utilize to address invasive species prevention and control has its origins in soundly applied research and development programs. For example, we are working with partners to expand our best management practices for fire and fuels management that benefit sage-grouse conservation and slow the expansion of invasive plants. Many of these invasive-plant prevention and control practices have been incorporated into land management plans. At the local level, the Forest Service continues to complete Fire and Invasive Species Assessments (FIATS) to determine priorities for fuel treatment and restoration.

The Forest Service is also working collaboratively through the Western Invasive Weed Summit Action Plan Team to identify and prioritize invasive weed prevention, control, and post fire restoration work to benefit sage-grouse habitat. One product of this work is a risk matrix for the Great Basin that can help identify lands that are at the greatest risk of invasion, and lands where we may have the greatest chances of successfully restoring native vegetation after a fire. This matrix is a direct result of a partnership with the Western Invasive Weed Summit Action Plan Team, State agencies, USGS, DOI, NRCS, and others.

More broadly, the Forest Service—under USDA leadership—is involved in interagency efforts to combat invasive species that is being coordinated by the National Invasive Species Council (NISC). The NISC recently released an Early Detection and Rapid Response (EDRR) Framework with recommendations for improving how invasive species threats are identified and responded to. This emphasis on early detection and rapid response may save the Federal governments and its partners money because of the high costs associated with invasive species containment and control after establishment. The EDRR Framework provides useful recommendations that can help the Forest Service and others prevent the establishment of the next cheatgrass-like threat. The EDRR Framework, which incorporated input from stakeholders, described in its forward as follows: “This national EDRR Framework proposes to connect efforts among a diverse array of stakeholders at multiple scales. It emphasizes a shared, renewed focus on coordination and partnerships, science and technology, and strategic on-the-ground action to reduce the threat of invasive species and help protect the Nation’s lands and waters, as well as the livelihoods that rely upon them.”

Question 2: What specific components of the Forest Service Land Use Plan Amendments will be enacted to reduce cheatgrass prevalence to decrease fire threat and address other ecosystem imbalance issues?

Forest Service Land Management Plan (LMP) amendments acknowledge that invasive plants in the Greater sage-grouse habitat (sagebrush ecosystem), including annual grass species, and particularly cheatgrass have had profound impacts. While other invasive plant species may degrade ecosystem function, the U.S. Fish and Wildlife Service identified annual grass species as one of the primary threats facing Greater sage-grouse and its habitat, particularly in Great Basin

region environments. The LMP amendments include specific guidance, consistent with best available science, to address the invasive species threat on the remaining sagebrush habitat and to restore habitats that have been altered as a result of invasive species encroachment, with the objective of establishing 10 to 30 percent sagebrush canopy cover on 70 percent or more of lands capable of producing sagebrush. The LMP amendments also have guidance that aims for a variety of sagebrush-community compositions (diversity of plants that are native in the local sagebrush ecosystem) without invasive species within greater sage-grouse landscapes.

Fire represents one of the most immediate threats to Greater sage-grouse habitat. The LMP amendments acknowledge that annual grass species provide a fuel source for wildfire ignitions. This causes more frequent fires and results in the replacement of millions of acres of historically suitable Greater sage-grouse sagebrush habitat with annual grasslands. Annual invasive grasses are prone to frequent, recurring wildland fire, which further exacerbates the conversion of habitat to annual invasive grasses. Recognizing the nature and extent of this threat, the LMP amendments include specific guidance to fight the spread of cheatgrass and other invasive species, position wildland fire management resources for more effective rangeland fire response, and accelerate the restoration of fire-impacted landscapes to native grasses and sagebrush. With each subsequent fire, ecological conditions increasingly favor invasive annual grasses, with a corresponding decline of native grasses and forbs, as well as a decline in the sagebrush itself.

When treating invasive plants and conducting native plant restoration activities in sagebrush habitats, resilience and resistance concepts (quantified through the Fire and Invasive Species Assessments) will be applied to prioritize and implement project decisions based on the LMP amendments. Fire and fuels projects will be focused on retention of sagebrush dominated communities that are important to the current connectivity of Greater sage-grouse populations. Restoration projects will focus on sagebrush communities that are being encroached by invasive species where site conditions and management actions favor the recovery of perennial grass and forb species as understory components. Rehabilitation projects will focus on the recovery of post-fire sagebrush communities where sagebrush habitats have been largely replaced by annual grasslands. These areas require intensive reclamation actions and may take decades before they can function as Greater sage-grouse habitats.

Question 3: Following implementation, will the Forest Service be using the same mitigation benchmarks and requirements as the BLM?

When moving forward with mitigation, the FS must first be consistent with any mitigation benchmarks and requirements established by the RODs. Within the framework established by the RODs, the FS plans to adopt state-based approaches to mitigation, while working toward a landscape scale approach that is as consistent, as possible, with all state strategies. For example, the FS has agreed to use, consistent with our legal authorities, the Nevada Conservation Credit System for mitigation. The FS is concurrently participating in a multi-agency and multiple state effort hosted by the BLM to develop a collaborative mitigation strategy for the Greater sage-grouse. The FS will follow the mitigation requirements of avoiding and minimizing negative impacts to sagebrush habitats. If residual effects exist after these requirements, then

compensatory mitigation may be required. State strategies and systems for compensatory mitigation can be used to the extent that they are consistent with FS authorities.

Question 4: During the hearing it became apparent that many stakeholder groups feel they have been left out of the process during the development of instructional memoranda and agency guidance documents. **Why do you feel stakeholder input is inappropriate during this stage of the process and what, if anything, does the Forest Service plan to do to engage stakeholders prior to the finalization of field guides or instructional memoranda?**

The Forest Service (FS) is working on numerous levels with states and stakeholders on guidance documents for implementation of greater sage-grouse conservation efforts. The guides are being developed with complete transparency and the Forest Service fully encourages input from stakeholders.

In Idaho, Wyoming, Utah, and Nevada, the FS has created state-based liaisons who work directly with their respective state working group to review the documents and address concerns. FS is drafting new Memoranda of Understanding (MOU) to formalize the communication and information transfer between the FS and states. For example, in April 2016, the Humboldt-Toiyabe National Forest signed a MOU with the Nevada Department of Natural Resources and Conservation and the Bureau of Land Management Nevada and California State Offices that describes the strategy and process for inter-agency implementation of Nevada's Conservation Credit System. At another level, FS directors and leadership participate on the Western Governors Association (WGA) sage-grouse task force. The FS has solicited input from the task force members on guidance documents.

The guidance documents do not establish new policy, but chart a course for implementation within the framework provided by the Records of Decisions (ROD) approving land management plans for the conservation of the greater sage-grouse. The environmental analyses leading to the RODs allowed for full engagement of the public. The FS views the implementation guides as "living documents" to be updated and modified as necessary, within the framework of the RODs. The guidance documents, along with other information, are posted on the following website:

<http://www.fs.fed.us/science-technology/fish-wildlife-plants/sage-grouse/implementation-guide>

Question 5: From the agency's perspective, what is the status of the Greater Sage Grouse population (e.g., location, population size, density) across the West at this time?

Specifics of sage-grouse populations are monitored by state wildlife agencies, and the FS would defer to state wildlife agencies for the best available data. Reports from Western states indicate that sage-grouse populations overall are stable and increasing. Nonetheless, the Forest Service can share the State data that was used to develop the amendments if needed.

Question 6: Please provide for the record a copy of any instructional memoranda, field guide, guidance document, or any other media currently under development that will affect implementation of the Forest Service's sage grouse conservation efforts.

Current versions of guides and other information pertinent to greater sage-grouse conservation are available at:

<http://www.fs.fed.us/science-technology/fish-wildlife-plants/sage-grouse/implementation-guide>

Guides are "living documents" that may be revised based on internal and external input. The documents are being developed and posted on line to provide maximum transparency.

Question from Senator Ron Wyden

Question: Of all the threats to sage grouse, fire creates a particularly unique challenge in that as the climate begins to change, wildfires become worse and more expensive to fight. **Can you explain the role that fire plays in federal land use plans for protecting sage grouse, as well as the effect that fixing the wildfire funding issues would have on the Forest Service's management of sage grouse?**

Though the sagebrush steppe ecosystem is a fire-adapted system, too frequent and intense fires represents one of the most immediate threats to Greater sage-grouse habitat. Annual invasive grasses are prone to frequent, recurring wildfire, further exacerbating the conversion of habitat to annual invasive grasses. Recognizing the nature and extent of this threat, Land Management Plan amendments include specific guidance to fight the spread of cheatgrass and other invasive species, position wildland fire management resources for more effective rangeland fire response, and accelerate the restoration of fire-impacted landscapes to native grasses and sagebrush.

The single most important step Congress can take to advance forest health and resilience is to enact a comprehensive fire budget solution—one that addresses both the growth of fire programs as a percent of the agency's budget and the compounding problem of transferring funds from non-fire programs to cover the cost of fire suppression.

Fire now consumes more than 50 percent of the Forest Service budget. Fiscal Year 2015 marked the eighth time since FY 2002 the Forest Service needed to transfer funds to pay for fire suppression. Even more devastating, with the cost of the last two fire seasons, more than \$237 million must be reallocated away from existing work such as forest restoration projects that would help reduce the risk of future fires, in order to cover the 10-year average cost of suppression for 2017. Congress relies on the 10-year average cost of fire suppression to appropriate funds. Additional work could be accomplished if the \$237 million were applied towards restoration efforts on the ground.

**U.S. Senate Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests and Mining
Hearing on June 28, 2016: Oversight on the Status of the Bureau of Land
Management and Forest Service's Efforts to Implement Amendments to Land Use
Plans and Specific Management Plans regarding Sage Grouse Conservation,
and those Agencies' Coordination Activities with Affected States
Question for the Record Submitted to Ms. Kathleen Clarke**

Question from Senator Lisa Murkowski

Question: You have experience on both sides of the table in this discussion, and you currently oversee a number of conservation efforts in Utah. In your testimony you contrasted the successful conservation efforts on the ground in Utah with the apparent lack of momentum in Washington.

- Has your relationship with local land managers, including those in the BLM and Forest Service, been compromised by Washington's top-down approach to local conservation?

Response: In general, relationships with local BLM officials remain positive with no apparent acrimony. However, there is mounting frustration that local BLM staff has no authority to do their jobs until Washington provides "guidance," a situation which creates unnecessary inertia and undermines BLM staff confidence. Under this scenario, existing partnerships between State and federal officials may fade and falter. It also appears to many of us that by requiring local BLM officials to "stand down" until Washington speaks, is a divisive way to stall decisions and progress on important applications and actions.

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Questions for the Record Submitted to Ms. Catherine Macdonald**

Questions from Senator Ron Wyden

Question 1: *I know there are some differences between the Oregon sage grouse plan and the Bureau of Land Management's resource management plan amendment for Oregon. How much involvement did the state and local stakeholders have in forming the BLM's plan? How are stakeholders addressing the differences in the plans and what recommendations would you have for the federal agencies to ensure alignment in implementing plans developed by state agencies?*

The Bureau of Land Management (BLM) has a long history of collaborating with the State of Oregon on sage-grouse management. In 2005, the Bureau participated in the State's development of its first Greater Sage-Grouse Management Plan. In 2010, BLM signed a Declaration of Cooperation to address issues related to renewable energy development and natural resource conservation in eastern Oregon with a special emphasis on sagebrush habitat.

The BLM formally invited numerous agencies to participate in developing alternatives for the Resource Management Plan Amendments (RMP) and Environmental Impact Statement (EIS) and to provide data and other information related to their agency responsibilities, goals, mandates, and expertise. Twelve agencies¹ accepted the offer to participate in the BLM planning process as cooperating agencies.

From 2012 to 2015, BLM, the Natural Resources Conservation Service and the State of Oregon co-convened over 15 meetings of the Sage Grouse Conservation Partnership. Their goal was to ensure active dialogue amongst over 60 representatives from County governments, Oregon Cattlemen's Association, Oregon Hunter's Association, energy companies, conservation organizations, relevant state agencies, and Oregon's congressional delegation and gather input from stakeholders to inform both the federal Plan Amendments and the State Action Plan on Greater Sage-Grouse. In addition, these entities convened numerous subcommittee meetings to discuss strategies for addressing fire and invasive species and avoiding, minimizing, and offsetting the unavoidable impacts of development.

The overall goal of the Partnership was to create an "all lands, all threats" approach to Greater Sage-Grouse conservation in Oregon. In this way, the federal agencies played a

¹ Crook County, Deschutes County, Harney County, Lake County, Malheur County, Oregon Department of Fish and Wildlife, Oregon State University, Federal Energy Regulatory Commission, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and Harney Soil and Water Conservation District.

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crucial role in bringing diverse perspectives and views to the table and creating an atmosphere of unprecedented collaboration.

Oregon Governor Brown's consistency review letter affirms that the State "is pleased to see much of the work-to-date to coordinate the state's efforts with the BLM's proposed RMP and FEIS for Oregon, bear fruit. This includes RMP measures that are consistent with the State Action Plan and legislative funding priorities, such as development of a disturbance methodology and mitigation approaches consistent with the State Action Plan, increased emphasis on reducing invasive annual grasses, addressing juniper encroachment, curtailing feral horse numbers in needed areas, and prioritizing efforts in areas vulnerable to fire."

The consistency letter identified two primary issues where the State and Federal Plans diverged: (1) proposed Sage Brush Focal Area (SFA) overlays in three of eight sage grouse counties, and associated protective designations, and (2) proposed rangeland health management practices. The letter then continued, "Oregon is confident that our demonstrated partnership with the BLM through our shared commitments to address the threats to GRSB habitat will be beneficial for sage-grouse in Oregon."

The State's Institute for Natural Resources and Department of Fish and Wildlife, and The Nature Conservancy, are now working with BLM to determine how to best apply the different approaches identified in the BLM Plan Amendments and the State Action Plan for assessing sage grouse habitat conditions. To accomplish this, we are conducting field trials to compare the Habitat Assessment Framework called for in the BLM plans with the State and Transition Model approach used in the State's Action Plan. BLM is helping to fund this field work and has been very open to discussing how to best reconcile the different methods.

The collaboration between BLM, and State and County governments is also continuing in other ways. For example, BLM has been working with the State and local counties to share data and develop research to determine how to best minimize disturbances to Greater Sage-Grouse habitats. Similarly, BLM has partnered with the Oregon Department of Forestry and the Rural Fire Protection Association to coordinate wildfire response, and regular meetings are occurring between federal and state agencies to update and coordinate a strategic approach to the conservation plans.

While the Oregon example is worth special recognition, States have been important partners in the development of all of the federal land management plans. The federal plans rely upon the foundation for Greater Sage-Grouse conservation initiated by a number of states, such as Wyoming's core area strategy. Federal agencies have worked

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hard to engage with and seek input from local stakeholders. Hearings have also been held across the West to inform implementation of the BLM plans, particularly as they relate to activities such as mining, grazing and energy development.

The challenge of developing land use plans that were sufficiently comprehensive and consistent to avoid a listing was a high bar to reach. In our view, BLM did an excellent job of applying sound science and conservation measures range-wide to provide a cohesive strategy for addressing threats across the range of the species while tailoring the plans to address the needs and differences between states. At the same time, the federal plans were also sensitive to the economic development of the rural West.

For example, the BLM plans do not close any areas to grazing, stating that well-managed livestock grazing can be compatible with long-term sage-grouse conservation. They also do not require a one-size-fits-all approach to grazing allotments. Instead, the plans recognize the need to evaluate habitat based on local ecological conditions and site potential when deciding where and how to apply different types of management. In Nevada, after a recent series of meetings, the President of the state Cattlemen's Association said that communication between BLM and other federal agencies with ranchers "has never been better."²

We believe that BLM's efforts were a key part of the US Fish and Wildlife Service's decision that the Greater Sage-Grouse was not warranted for listing under the Endangered Species Act. We should not let disagreements over the plans slow down the work on the ground. Despite a population that was once estimated to number 16 million, today, the population has dwindled to 200,000 to 500,000 birds range-wide. The plans amendments applied sound science and provide a cohesive strategy for addressing threats across the species range. With so much at stake, now is the time for all parties to focus on effective implementation of the plans.

² McKown, M.K. "Nevada's Cattlemen Hopeful About Sage Grouse Plans". Elko Daily Free Press (June 23 2016).

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***Question 2:** Your organization has worked with ranchers, farmers, private landowners, and the federal government to collectively protect more than 4 million acres of sage grouse habitat. I also understand that all eight of Oregon counties in sage-grouse habitat have signed Candidate Conservation Agreements with the Fish and Wildlife Service. Can you explain how this on-the-ground collaborative work has been so successful and how measures like the Candidate Conservation Agreements on private lands complement what's being done on BLM, Forest Service, and state lands? What more can we do to encourage this kind of voluntary, complementary work?*

Conservation action on private lands is a critical component of an effective overall Greater Sage-Grouse conservation strategy, as private landowners control 31 percent of the species habitat. In many parts of the range, wetlands, riparian areas and wet meadows that are essential summer habitat for the species occurs largely on private land used for livestock production. As a result, ranchers and other private landowners are key partners in Greater Sage-Grouse conservation.

The importance of private lands to the conservation of Greater Sage-Grouse has led federal agencies to work proactively and collaboratively in Oregon and across the West to establish partnerships with private landowners and conservation organizations to implement conservation at an unprecedented scale.

One notable effort, the Natural Resources Conservation Service (NRCS) Sage Grouse Initiative, has been effective because it has been driven by science and focused on “the strong link between conditions required to support sustainable ranching operations and habitat characteristics that support healthy sage-grouse populations.” A recent NRCS report shows that the agency has already spent \$425 million for conservation projects with 1,129 ranchers across the eleven Western states. By 2018, the NRCS projects that 8 million acres of habitat will be conserved due to this partnership.³

The U.S. Fish and Wildlife Service's (USFWS) Candidate Conservation Agreement with the Oregon Cattleman's Association and Bureau of Land Management and Candidate Conservation Agreements with Assurances (CCAA) in all eight Oregon counties have also played a critical role in advancing voluntary conservation action on private lands. These Agreements describe the measures ranchers can take to reduce threats to Greater Sage-Grouse. As the USFWS describes, “A Candidate Conservation Agreement with Assurances provides incentives for non-federal property owners to engage in voluntary conservation activities that can help make listing a species unnecessary. More

³ NRCS. “[Outcomes in Conservation- Sage Grouse Initiative](#)” (February 2015). For examples of Sage Grouse Initiative success stories, see NRCS [Success on the Range Report](#) (July 2015).

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specifically, a CCAA provides participating property owners with a permit containing assurances that if they engage in certain conservation actions for species included in the agreement, they will not be required to implement additional conservation measures beyond those in the CCAA.”

The NRCS and USFWS efforts provide an important complement to the work being done by BLM and the Forest Service on public land. Continued investments in programs that support public-private partnerships and provide incentives for private landowners are an important piece of the puzzle going forward. In order to sustain this momentum, we urge the following actions by Congress:

- Fully fund implementation of Secretarial Order 3336, Rangeland, Fire Prevention, Management, and Restoration by Secretary Jewell. The Department of the Interior has issued a series of recommendations to identify implementation actions based on interagency federal task groups working with tribes, state and local governmental partners, and other stakeholders. After the massive Soda Fire that burned more than 400 square miles—in Oregon and Idaho, the federal government provided important funding and other assistance for restoration efforts on private lands.
- Support on-the-ground collaborative efforts such as the Sage Grouse Initiative at NRCS. For example, The Nature Conservancy hopes to partner with NRCS in the protection of 9,000 acres of habitat for sage-grouse in the foothills of Idaho's Pioneer Mountains. The goal of the acquisition is to limit future fragmentation of habitat while allowing a working ranch to continue its operations.⁴
- Continue to invest in cutting-edge science to seed the West and reduce the threat of invasive species and rangeland fire. Ground-breaking work is being done by the Agriculture Research Service (ARS) Research Station in Burns, Oregon to develop new seed enhancement technologies specifically designed to overcome barriers to successful restoration in sagebrush country.⁵
- Support local collaborative frameworks. Two such examples include the High Desert Partnership in Harney County, Oregon and the Watershed Restoration Initiative (WRI) in Utah. Since its inception, WRI partners, including NRCS, have treated over 1.2 million acres, leveraging over \$160 million to complete

⁴ Moore, G. “[Ranch purchase will protect sage-grouse habitat](#),” Idaho Mountain Express (July 13 2016).

⁵ House, K. “[How a doughnut maker, pasta machine and science could save the sagebrush steppe](#)”. The Oregonian (August 25 2013).

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1,400 conservation projects. This includes over 400,000 acres of conifer-encroached sage-steppe that are now restored to healthy and productive sage grouse habitat.

- Support the work of federal agencies such as the BLM on regional mitigation strategies to enable land use plans that avoid, minimize, and mitigate for unavoidable impacts to Greater Sage-Grouse.
- Support the National Fish and Wildlife Foundation's investments to establish Cooperative Weed Management Areas within the Greater Sage Grouse Range.

Efforts to conserve the Greater Sage-Grouse have far reaching benefits for all of us, from the conservation of important game species, like mule deer and pronghorn antelope, to the protection of rangelands from destructive fires that can impact livestock producers.

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Question from Senator Lisa Murkowski

Question: In your testimony you clearly spelled out the economic impacts that can result from withdrawing 10 million acres from mineral production. In your view, did the Administration take any of the economic, foreign policy, or national security implications into consideration when determining the 10-million-acre figure?

Response: In short, no, they did not consider those factors when determining their overly broad and misguided recommendations.

In the past two decades, the United States' dependence on mineral imports has doubled and today, less than half of the minerals American manufacturers need are sourced domestically. U.S. industries are currently 100 percent import dependent on 19 key minerals and more than 50 percent import reliant on another 24 mineral commodities that are potentially available in the U.S. Our growing dependence on imports leaves many key domestic industries unnecessarily vulnerable to disruptions from extended, complex and fragile supply chains, in turn making our economic, foreign policy, and national security susceptible to higher levels of risk.

Given the elusive nature of mineral deposits, discoveries cannot occur without widespread exploration. Such extensive exploration activities are required because concentrations of useful minerals rich enough to form ore deposits are rare phenomena. Commercially extractable concentrations form only where special physical and chemical conditions have favored their accumulation.

Had the Administration fully taken these factors into account, as well as the fact that their own data clearly shows that mining activities are not a major threat to the sage grouse or its habitat, they would not have moved forward with the recommendation. Furthermore, the government's own reports prepared for the listing determination and the land use plans uniformly conclude wildfires and invasive species as the greatest threats to sage grouse throughout its range.

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Testimony of the

Theodore Roosevelt Conservation Partnership

Submitted jointly on behalf of

**North American Grouse Partnership
Pheasants Forever
Quail Forever
Wildlife Management Institute**

Committee on Energy and Natural Resources
Subcommittee on Public Lands, Forests, and Mining
United States Senate

Oversight hearing on the status of the Bureau of Land Management and Forest Service's efforts to implement amendments to land use plans and specific management plans regarding sage grouse conservation, and those agencies' coordination activities with affected states.

Tuesday, June 28, 2016

Introduction and Qualifications

The Theodore Roosevelt Conservation Partnership, an alliance of 49 partner organizations that include many of the nation's leading hunting and angling conservation organizations, appreciates the opportunity to submit testimony regarding the status of implementation of the Bureau of Land Management (BLM) and US Forest Service (USFS) sage-grouse conservation plans and agency coordinated activities with the states. We are pleased to submit this testimony on behalf of the North American Grouse Partnership, Pheasants Forever, Quail Forever, and the Wildlife Management Institute.

Our organizations have extensive experience in wildlife and habitat ecology, federal and state agency management and partnerships, energy and wildlife relationships, habitat management and restoration, and wildlife and natural resources policy. We have been engaged and have worked considerably on sage-grouse during the development of state and federal agency conservation plans; some of our groups also have worked on implementation of conservation measures for sage-grouse on private lands. These collective efforts by the federal government, state governments, private landowners and conservation groups led to the “not-warranted” decision by the US Fish and Wildlife Service (USFWS) on September 22, 2015.

Background

Once numbering millions and spanning 13 US states and 3 Canadian provinces, greater sage-grouse are now extirpated in 2 states and one province and have lost 44% of their original range (Connelly et al. 2004). Numerous stressors that include habitat fragmentation, energy development, urbanization, fire, invasive species, disease and poor rangeland health have contributed to declines of sage-grouse in the past several decades. Indeed, the fact that a once abundant, widely distributed and harvested game bird is now at population levels low enough to consider for listing as threatened or endangered should be a major concern for all stakeholders, policy makers, and the public.

Sagebrush ecosystems are critically important to more than 350 species of plants and animals, including those pursued by sportsmen such as mule deer, pronghorn, and the greater sage-grouse. The sage-grouse in essence has become a modern day “canary in the coal mine” that has told us that sagebrush ecosystems and many of the species that depend on them are in jeopardy. Thriving populations of sage-grouse are a good indicator of healthy sagebrush ecosystems. Our groups support continued management of sage-grouse as a game bird under the authority of state fish and wildlife agencies. The best way to ensure state management is through science-based measures to conserve and restore populations of sage-grouse and their habitats across their native range sufficient to avoid any future need to consider listing the species under the Endangered Species Act (ESA) and maintain long-term, sustainable populations and harvest. Balancing sagebrush and sage-grouse conservation with other land uses is important, notably 1) implementation of sustainable grazing practices that keep working ranches in operation while providing habitat for sage-grouse; and 2) responsible energy development that does not further impact sage-grouse and their core habitats and mitigates unforeseen impacts once avoidance and minimization measures have been taken.

Past Engagement by the States

In 2002, the Western Association of Fish and Wildlife Agencies (WAFWA) partnered with the USFWS to generate an assessment of sage-grouse populations and habitats (Connelly et al. 2004) and a conservation strategy (Stiver et al. 2006) built from the ground up that continues to serve as a foundation of the current efforts. The Governors' Sage-grouse Task Force was created in 2011, co-chaired by Governor Matt Mead R-WY and Governor John Hickenlooper D-CO. That state-dominated task force was charged with developing recommendations on how to best advance a coordinated, multi-state, range-wide effort to conserve the sage-grouse, including the identification of conservation objectives to ensure the long-term viability of the species (USFWS 2013). With the backing of this Task Force, the USFWS embarked on developing range-wide conservation objectives for the sage-grouse to define the degree to which threats need to be reduced or ameliorated to conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future (USFWS 2013). The USFWS recognized that state wildlife agencies have management expertise and management authority for sage-grouse; as such, the USFWS created a Conservation Objectives Team (COT) of state and USFWS representatives to accomplish this task. The COT consisted primarily of state agency biologists/representatives (10 of the 11 western states in the range of sage-grouse) along with five biologists and other staff from the USFWS. At the heart of the COT report is the foundation laid by the WAFWA conservation strategy (Stiver et al. 2006). Importantly, all of the states signed off on the COT report and the threats and strategies embedded within it.

The states have continued to be engaged extensively, through the Governors' Task Force, WAFWA and their Sage-grouse Executive Oversight Committee, and other venues. From our perspective, the coordination and work between the states and federal agencies to achieve positive outcomes and the not-warranted decision, while not perfect at all levels or all the time, has been unmatched by any other previous effort. Unfortunately, some state conservation plans could not stand alone and address all threats to sage-grouse as some contend. As such, we strongly believe that the not-warranted decision issued by the USFWS was predicated on the combination of strong federal plans for federal ownership, a mix of state plans, and a wide range of voluntary conservation measures employed on private lands (e.g., easements, revised grazing management plans, fence-marking).

Issues with Legislating State Management on Federal Public Lands

While this hearing centers on the status of implementation of federal plans, we are convinced there will be a continued plea from some to use state conservation plans instead of the federal conservation plans.

Past and current language in proposed federal legislation under consideration would:

- force the BLM to implement a states' sage-grouse plan – plans that were not always driven by the guidance of state wildlife agency professionals, and few of which can address all threats to sage-grouse by themselves.
 - state plans are highly variable and inconsistent. As such, a weak plan for the state could be the driving management strategy for federal public lands based on several Congressional legislative proposals.

- give the states gubernatorial veto power over land management decisions on our federal public lands.
- disallow bedrock environmental laws to be employed as required by current law (e.g., NEPA).
- exclude public input and bar any judicial review.
- hold the status of sage-grouse as “not warranted” even if plans are failing and grouse are declining – i.e., no USFWS 5-year review process for up to a decade after enactment.
- undo years of cooperation and waste millions in taxpayer dollars already invested on planning for our federal public lands.
- delay implementation of conservation and management efforts that are needed right now.

Any notion of shifting management authority completely to the states and negating federal land management plans is fundamentally flawed and problematic for numerous reasons. There are key differences in how state and federal governments are mandated to manage their respective lands. First and foremost, states do not manage their lands under a multiple-use mandate, as the federal agencies are required to do by law. State trust lands are under constitutional mandate to generate, and where possible maximize, revenues for schools and state treasuries, which limits their flexibility and management options in many cases. In contrast, federal land managers operate under a multiple use sustained yield mandate, giving them far greater flexibility to manage for conservation values in addition to other values. As a result, sage-grouse management plans on federal public lands can, and should, be significantly more conservation-oriented than the state plans insofar as development buffers and setbacks from priority sage-grouse habitat.

The management stipulations that states apply to non-federal lands are far more limited in scope than the types of requirements that federal public land managers can apply. For example, the federal plans include mineral withdrawal, no-surface occupancy and other conservation measures in the best priority habitat. These measures generally do not appear in many state plans - measures that were essential to the not-warranted decision and the long-term viability of sage-grouse. Moreover, at least some states have limited ability to regulate private lands given their current constitutional statutes, and in some states, counties have authority over many decisions that may affect sage-grouse habitat (e.g., permitting development). As such, some state plans are primarily or even entirely voluntary, thus weakening regulatory assurances needed by the USFWS in their determinations. Also, some populations of sage-grouse span multiple states that have different habitat designations and management approaches – creating unnecessary challenges for managing such populations. Finally, the state plans, even those produced by committees of diverse stakeholders, did not go through a broader public review and input process as did the federal plans. As such, implementing such state plans on federal public lands owned by the American people with no opportunity to comment is fundamentally and constitutionally flawed.

Given these issues and questions, most state plans cannot reliably stand alone and drive conservation efforts on all ownerships to adequately conserve the species. This exemplifies why all efforts – federal, state and private – are needed in combination to achieve and maintain the not-warranted decision.

Implementing Sage-grouse Conservation Plans

Numerous hearings and workshops have occurred across the West to examine how the federal plans will implement and monitor activities such as mining, grazing and energy development should proceed. Indeed, after a recent workshop held in Nevada, the NV Cattlemen's Association told the Elko Daily that the federal plans "...do not close greater sage-grouse habitat to livestock grazing, nor do they require a one-size-fits-all approach." The Nevada Cattlemen's President David Stix Jr. also stated that the communication between ranchers and the BLM and USFS "has never been better."

Our organizations believe the BLM and USFS should remain committed to identifying ways to improve coordination with the states and stakeholders throughout implementation. The threat of an ESA listing for sage-grouse has brought the states, federal agencies and multiple stakeholders to the table in a meaningful way. Now, the federal and state agencies and stakeholders must focus on the immediate implementation of conservation measures in both state and federal plans.

While we appreciate the Senate subcommittee holding this hearing, our groups continue to see no need for Congress to act on the sage-grouse beyond ensuring adequate and sustainable funding levels are made available for conservation implementation. Funding for implementation of federal plans and funding for private lands conservation through the Farm Bill and other vehicles are essential for success.

Thank you for the opportunity to share this information and our perspectives on the development and implementation of sage-grouse conservation plans. We appreciate this opportunity and look forward to continuing our work to ensure sage-grouse conservation measures are funded and implemented into the future.

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