

From: [Kemner, Don](#)
To: ["Doherty, Kevin"](#)
Cc: [Moser, Ann](#)
Subject: RE: GRSG: Sage-grouse Distribution in ID
Date: Saturday, February 28, 2015 4:59:41 PM

Kevin,

Monday morning 9:00 a.m. mountain time. Please call my office number 208-287-2748. Ann will join us.

Don

From: Doherty, Kevin [mailto:kevin_doherty@fws.gov]
Sent: Friday, February 27, 2015 10:59 AM
To: Kemner, Don
Subject: GRSG: Sage-grouse Distribution in ID

Don,

I am finishing up the population and distribution model for sage-grouse and getting ready to coordinate with the larger WAFWA group. However, before I do that I wanted to talk with you about an issue I discovered in the Occupied Distribution layer from Schroeder 2004. Basically there are a few areas where my models predict occupied habitat and there are occupied leks in ID, but it is outside the distribution boundary. I think I have a fairly easy fix to the problem, but I need to bounce that idea off of you and get your feedback before I bring it to the larger group.

Are you available to talk today or Monday?

Cheers
Kevin

--

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DRAFT, dated 2/17/15

SO 3336 – The Initial Report

*A Strategic Plan for
Addressing Rangeland Fire
Prevention, Management, and
Restoration in 2015*



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Introduction

The accelerated invasion of non-native annual grasses, along with drought, and the effects of climate change, created conditions that are leading to an increased threat of rangeland fires to the sagebrush landscape and the more than 350 species of birds, plants, and animals, including the golden eagle, mule deer, elk, and pronghorn antelope, that rely on this critically important ecosystem. In 2010, the U.S. Fish and Wildlife Service (FWS) found that the invasion of annual grasses and the loss of habitat from fire in the Great Basin is a significant threat to the greater sage-grouse in that portion of its remaining range. The FWS is now considering whether protections under the Endangered Species Act are warranted. Most importantly, the increased frequency and intensity of rangeland fire poses a significant threat to the many tribal and local communities, ranchers, hunters, and others, who live in, work, and/or value the iconic sagebrush-steppe landscape and who, for generations, have depended upon these lands and resources to sustain their way of life.

Secretarial Order 3336 (the Order) places a priority on “protecting, conserving, and restoring the health of the sagebrush-steppe ecosystem and, in particular, greater sage-grouse habitat, while maintaining safe and efficient operations,” and looks to the allocation of fire resources and assets associated with wildland fire and investments related to restoration activities to reflect that priority.

Given the high priority placed by the Secretary on addressing the significant threat of rangeland fire, Section 5 of the Order directed the Task Force to deliver to the Secretary a science-based comprehensive strategy to reduce the threat of large-scale rangeland fire to habitat for the greater sage-grouse and the sagebrush-steppe ecosystem through effective rangeland management (including the appropriate use of livestock), fire prevention, fire suppression, and post fire restoration efforts at a landscape scale. Specifically, the Order calls for an [Implementation Plan](#), issued on February 1, 2015, and two reports—an Initial Report due March 1, 2015, and a Final report, due May 1, 2015. *The Initial Report: A Strategic Plan for Addressing Rangeland Fire Prevention, Management, and Restoration in 2015* (Initial Report), details specific actions and initiatives that will be taken in advance of the 2015 Western fire season.

The actions identified and described in this first report represent an initial effort to improve the efficiency and efficacy of our rangeland fire management efforts in the short-term, prior to the 2015 Western wildfire season, as directed in the Order. These activities will involve targeted, strategic investments of Departmental resources to enhance efforts to manage rangeland fire in specific portions of the Great Basin. Detailed actions in this first report include recommendations to:

- prioritize and allocate firefighting assets to give increased focus to suppressing wildfire in highly valuable portions of the sagebrush-steppe ecosystem to reduce the loss of critically-important greater sage-grouse habitat; and

- accelerate efforts to restore rangelands that are damaged by wildfire to native plants and grasses to help improve the health of this ecosystem.

There are also actions identified in this report that will begin in 2015 but will carry on into the future for completion. Those associated actions are identified in the sections entitled, “2015, 2016, and Beyond.”

Section 7(b) i. – Integrated Response Plans

Issue Description/Overview

Design and implement comprehensive, integrated fire response plans for the Fire and Invasives Assessment Tool (FIAT) evaluation areas and other areas in the Great Basin that prioritize protection of low resilience landscapes most at-risk to detrimental impacts of fire and invasives.

The Order is intended to: (1) enhance the capability and capacity of state, tribal, and local government, and non-governmental fire management organizations, including local cooperators (e.g., rangeland fire protection associations, rural fire associations, and volunteer fire departments) through improved and expanded education and training; (2) improve coordination among all partners involved in rangeland fire management to further improve safety and effectiveness; (3) conduct reviews of existing programs policies and practices associated with current suppression and prevention of the sagebrush steppe; and (4) commit wildland fire management resources and assets to prepare for and respond to rangeland fires.

To accomplish these tasks agencies will apply a risk-based, cross-boundary approach to wildland fire response planning and preparedness by incorporating the rangeland fire suppression priorities into the revision of Fire Management Plans (FMPs) and Land Use Plans (LUPs) and update computer assisted dispatch (CAD) systems to assure initial attack response to priority greater sage-grouse habitat to ensure they provide for appropriate availability of response of suppression resources. Priorities will be consistent with the [Guidance for Implementation of the Federal Wildland Fire Management Policy](#), dated February 13, 2009, and priorities outlined in the Order.

Methodology

The lead agency for developing actions associated with this sub-section of the Order is the Bureau of Land Management (BLM), Fire and Aviation. BLM worked with Federal agency wildland fire management staffs and state agency administrators from the Great Basin states to develop the proposed actions outlined below.

These proposed actions incorporate: (1) relevant recommendations from the operations group at [The Next Steppe: Sage Grouse and Rangeland Fire in the Great Basin](#) conference held in Boise, Idaho, the first week of November 2014; (2) fire management knowledge and expertise; and (3) policies and procedures outlined in the [Interagency Standards for Fire and Fire Aviation Operations](#) handbook (Red Book), the [National Interagency Mobilization Guide](#), and other Departmental policies.

Actions Underway

For the last three years, dispatch centers within the Great Basin and those centers with greater sage-grouse habitat, have been implementing priority wildfire response to sagebrush ecosystems that support greater sage-grouse species. This prioritization is consistent with existing BLM

policy and guidance, including Best Management Practices (BMPs), and Instructional Memoranda.

The Dispatch Centers have identified priority areas based upon state fish and wildlife agencies priority greater sage-grouse maps and the numbers and types of resources for response to those areas in their individual CAD systems. For example, during multiple fire start situations, priority greater sage-grouse areas have received additional suppression resources compared to other areas. Continued and enhanced efforts in this regard are now a critical Department of the Interior natural resource priority for all of its component agencies and bureaus.

Proposed Actions

Prior to the 2015 Western Wildfire Season

Prior to the 2015 Western wildfire season, all units that manage priority greater sage-grouse habitat will complete the actions identified in this section of the Initial Report:

Action Item #1

Increase the capabilities of Rural/Volunteer Fire Departments and Rangeland Fire Protection Associations (RFPAs) and enhance the development and use of Veterans Crews. Continue providing training to cooperators, assess training and qualifications needs of cooperators, and expand training opportunities into the future to add significant capacity for initial attack and control of fast-moving wildfires in the Great Basin, with a primary focus in the FIAT areas. Coordinate with state, tribal, and local government partners to leverage training assets and capabilities. Specifically, BLM/DOI will seek to deliver training to cooperators and increase the utilization of Veterans crews before the 2015 fire season.

Responsible Parties: OWF/Agency Fire Leadership

Target: April 1, 2015

Action Item #2

Ensure local, Multi-Agency Coordination (MAC) groups are functional, and MAC plans are updated. MAC groups will ensure direction is provided on resource allocation and prioritization for greater sage-grouse habitat protection.

Responsible Parties: MAC groups working with local Federal wildland fire suppression agencies, tribes, state fire suppression agencies, and local fire departments.

Target: May 1, 2015

Action Item #3

Develop and implement minimum draw-down level¹ and step up plans² to ensure resources are available for protection in priority greater sage-grouse habitat. All units managing priority

¹ The minimum level of personnel and equipment resources needed (at either the local or national level) without compromising response capability.

greater sage-grouse habitat will develop and implement a minimum draw-down level and step up plans to clearly identify those suppression resources necessary in order to maintain an effective, aggressive initial attack capability.

Responsible Parties: Federal local unit Fire Management Officers (FMOs), in coordination with cooperators and reviewed by Federal state/regional FMOs.

Target: May 1, 2015

Action Item #4

Apply a coordinated, risk-based approach to wildfire response to assure initial attack response to priority areas. Apply a risk-based approach to fire response, coordinated across jurisdictional boundaries; review and update CAD systems to assure initial attack response to priority greater sage-grouse areas to ensure greater sage-grouse habitat is protected.

Responsible Parties: Local MAC Groups and unit FMOs, with review by Federal regional/state FMOs

Target: May 1, 2015

Action Item #5

Develop a standardized set of briefing materials. Prepare standardized briefing materials on sagebrush-steppe and greater sage-grouse wildfire protection for incoming Type 1 – 3 Incident Management Teams (IMTs) and other fire management resources. Materials will include, at a minimum:

- Suppression, operations, and rehabilitation BMPs;
- Maps of priority greater sage-grouse areas, strategic fuel breaks, initial attack asset locations and response times;
- LUPs and FMP guidance; and
- Relevant local unit data related to sagebrush-steppe conservation and restoration is pre-loaded into the Wildland Fire Decision Support System (WFDSS).

Responsible Parties: Geographic Area Coordinating Centers (GACCs) and local MACs

Target: May 1, 2015

Action Item #6

Review and update local plans and agreements for consistency and currency to ensure initial attack response to priority greater sage-grouse areas. Included are:

- Fire Prevention Plans;

² Step-up Plans, (also called Staffing Plans), are designed to direct incremental preparedness actions in response to increasing fire danger.

- 144 • WFDSS data updates;
- 145 • Fire Danger Operating Plans (National Fire Danger Rating System);
- 146 • Preparedness Level Plans; and
- 147 • Up-to-date, approved Agreements and Annual Operating Plans.

148 **Responsible Parties:** Federal local unit FMOs, in coordination with cooperators and with review
149 by Federal regional/state FMOs to provide consistency for all wildland fire related planning and
150 documentation to include greater sage-grouse protection.

151 **Target:** May 15, 2015

152 **Action Item #7**

153 *Develop supplemental guidance for the use of “severity funding”³.* This will focus on
154 maintaining initial attack success rate, capabilities, and preservation of greater sage-grouse
155 priority habitat by developing supplemental guidance for the use of severity funding that
156 provides specific greater sage-grouse stipulations to access funding and implement supplemental
157 fire suppression resources. This will provide the Department the ability to bring in additional
158 non-agency resources to provide protection of sagebrush ecosystems when fuels and weather
159 conditions do not meet the present criteria for severity funding.

160 **Responsible Party:** DOI Office of Wildland Fire (OWF) in coordination with the BLM.

161 **Target:** May 15, 2015

162 **Action Item #8**

163 *Evaluate the effectiveness of action plans.* Develop annual reporting metrics for effectiveness
164 monitoring of wildland fire response, with particular emphasis on the effectiveness of measures
165 to improve success in rangeland fire response, based upon CAD changes, and reporting of
166 success and/or failure as it pertains to LUPs and FMPs, and effectiveness of enhanced training
167 and capacity measures.

168 **Responsible Parties:** DOI OWF and Federal Agency Fire Directors

169 **Target:** May 30, 2015

170 **Action Item #9**

171 *Develop means to provide maps of priority greater sage-grouse areas to local MAC groups and*
172 *unit FMOs, using appropriate technology, in order to improve ability to target fire management*
173 *activities. Implement pilot(s) to demonstrate the use of this technology during the 2015 wildfire*
174 *season.*

175 **Responsible Parties:** Federal Agency National Leadership

³ Suppression funds used to increase the level of pre-suppression capability and fire preparedness when predicted or actual burning conditions exceed those normally expected, due to severe conditions.

176 **Target:** June 1, 2015

177 **Action Item #10**

178 *Ensure compliance and evaluation of the implementation plan action items.* During annual
179 preparedness reviews, all CAD systems and MAC plans will be reviewed for compliance with
180 the action plans outlined in Action Items #1 and #4.

181 **Responsible Parties:** Local Unit FMO and Federal regional/state Fire Management Officer

182 **Target:** July 1, 2015

183 **During 2015, 2016, and Beyond**

184 Longer term actions will begin in 2015, with full implementation in subsequent years, to improve
185 program effectiveness, efficiency and reduce costs:

- 186 1. Update FMPs to promote protection, conservation, and restoration of sagebrush-steppe
187 and priority greater sage-grouse habitat.
- 188 2. Increase the availability of technology and technology transfer to wildland fire managers
189 and resources. Access to real time maps, information, and data increases the success of
190 suppression resources responding to the wildfire threats to priority greater sage-grouse
191 habitat. To increase this availability, agencies should make available the most current
192 hardware and software and increase the rate of radio system upgrades. This action will
193 build on experience gained from implementation of item #9 during the 2015 fire season.

194

7(b) ii - Prioritization and Allocation of Resources

Issue Description/Overview

Provide clear direction on the prioritization and allocation of fire management resources and assets.

Prioritization and allocation of fire management resources takes place on multiple scales by the “organizational owners⁴” of the resources and assets, both within the individual organizations and in coordination and collaboration with each other. Locally, assets and resources are prioritized prior to incidents through pre-incident response plans (often known as “run cards”) and by local determinations about which resources and assets are retained for local use only and those available for assignment to other locations. MAC groups, or the equivalent, are composed of agency managers and set guidelines and parameters for response (mobilization guides), including priorities and criteria for allocation of resources and assets.

At the national level, the National Multi-Agency Coordinating (NMAC) Group prioritizes allocation of resources and assets among the nine geographic areas, as identified by the [National Interagency Coordination Center](#) (NICC). Geographic Multi-Agency Coordinating (GMACs) Groups prioritize allocation of resources and assets among fires within their respective geographic areas. Overall priorities for allocation of wildland fire management resources and assets are guided by agency fire management policies. National priorities are typically set prior to the onset of wildfire season through “direction to leaders” documents issued by national agency leadership. Command responsibility for each incident lies with the local line officer or agency administrator, usually through a delegation of authority to an incident commander.

The Order directs that protecting, conserving, and restoring the health of the sagebrush-steppe ecosystem is a critical fire management priority for the Department of the Interior, requiring that the tools and processes for prioritization and allocation of fire management resources reflect that priority (see [Section 4 of the Order](#)).

Potential challenges and considerations for providing clear direction on prioritization and allocation of fire management resources and assets include:

- Clear understanding of roles and responsibilities at all levels and scales;
- Maintaining national level fire activity situational awareness;
- Clear communication of leadership priorities;
- Communicating fire activities and conditions to agency leadership throughout the fire season;
- Adjudicating competing priorities, especially between multiple agencies and levels of government;

⁴ Organizational Owner is the organization (Federal, state, or local) that funds the resource

- Adjudicating competing strategic priorities for federal fire resources for non-fire emergencies;
- Increased ability to manage the movement and pre-positioning of fire management assets;
- Strengthening support from Department of Defense (DOD) and international partners; and
- Reduced levels of key assets such as crews and aviation.

Methodology

Actions and recommendations were developed through conversation with the NMAC, with Federal fire leadership in the Department of the Interior and USDA Forest Service (USFS), and with representatives from the National Association of State Foresters (NASF) and western states.

Actions Underway

A number of actions are underway to address prioritization and allocation of wildland fire management resources:

- Local, unit level reviews of pre-attack dispatch plans and pre-positioning of response resources in coordination with partner and cooperator organizations;
- Revisions and updates to the *National Mobilization Guide* to increase clarity of policies and procedures.

Proposed Actions

Prior to the 2015 Western Fire Season

Further actions to be taken prior to the 2015 Western fire season to provide clear direction on the prioritization and allocation of fire management resources and assets include:

Action Item #1

Communication plan. Establish protocols for providing Federal agency leadership with regular briefings and information on wildfire activity, fire conditions, and significant issues in relation to rangeland fire and the implementation of the Order throughout the 2015 wildfire season in order to provide leadership with an accurate understanding and insight to the conditions on the ground. Senior leadership will regularly communicate national strategic priorities and expectations to line officers and fire staffs during the wildfire season.

Responsibility: National agency fire leadership (DOI Bureaus and USFS)

Target: April 1, 2015

259 **Action Item #2**

260 *Review and update the delegation of authority for the NMAC Group.* Ensure clarity of role,
261 function, responsibility, and accountability, specifically in relation to the policy direction for
262 addressing rangeland fire in the Order.

263 **Responsibility:** National agency leadership (DOI Bureaus/USFS/National Association of State
264 Foresters [NASF])

265 **Target:** May 1, 2015

266 **Action Item #3**

267 *Issue national level “Leaders’ Intent.”* Provide expectations, direction, priorities, and objectives
268 for NMAC, GMACs, line officers and fire management staff.

269 **Responsibility:** National agency leadership (DOI Bureaus/USFS/NASF)

270 **Target:** May 1, 2015

271 **Action Item #4**

272 *Engage GMAC Groups.* Communicate Leaders’ Intent and expectations for prioritization and
273 allocation of fire management resources and assets in relation to rangeland fire.

274 **Responsibility:** National agency leadership (DOI Bureaus/USFS/NASF)

275 **Target:** May 1, 2015

276 **Action Item #5**

277 *Develop “Delegation of Authority” template for use by local line officers.* Create standard
278 language for use in a Delegation of Authority template that identifies the sage-steppe ecosystem
279 and protection of species as a priority. Line officers will use this standard template when
280 delegating authority to an Incident Commander who has responsibility for managing a wildfire
281 incident within a FIAT area or has nexus to one.

282 **Responsibility:** NMAC

283 **Target:** May 1, 2015

284 **Action Item #6**

285 *Engage line officers to communicate Leaders’ Intent and expectations.* Each agency use
286 appropriate internal mechanisms to communicate intent and expectations to regional and unit
287 level managers.

288 **Responsibility:** Federal agency leadership (USFS/DOI Bureaus)

289 **Target:** June 1, 2015

During 2015, 2016, and Beyond

Longer-term actions, to begin in 2015 with full implementation in subsequent years, will be taken to improve utilization of fire management resources and assets in relation to rangeland fire and increase efficiency and reduce costs:

1. Reduce administrative barriers (e.g., the lack of a travel credit card for fire crews limits the expeditious assignment and reassignment of fire personnel resources from one incident to another) to the mobility of resources and assets;
2. Enhance predictive services capability to anticipate resource and asset needs;
3. Enhance fire intelligence capability to better plan for and utilize resources and asset;
4. Engage international and Department of Defense (DOD) partners;
5. Improve cooperative agreements between Federal, tribal, and state entities;
6. Better management of radio spectrum;
7. Enhance ability of communities to provide local protection;
8. Address areas without previously defined protection responsibilities;
9. Expand capabilities of tribal, state, and local agencies to provide fire protection; and
10. Develop a mechanism to capture and analyze data regarding wildfire impacts to priority sagebrush-steppe ecosystems.

7(b) v. - Post-Fire Recovery

Issue Description/Overview

Review and update emergency stabilization and burned area rehabilitation policies and programs to integrate with long-term restoration activities.

Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) funding are two separate Department programs with two distinct purposes, authorities, and budgets. The purpose of the ES program is to undertake emergency treatments to minimize threats to life or property and to stabilize or prevent unacceptable degradation to natural and cultural resources from the effects of wildfire. Currently, emergency stabilization is performed within one year of containment of a wildfire, though projects may be monitored for up to three years.

The purpose of the BAR program is to identify those areas unlikely to recover naturally from severe wildfire damage and take actions to initiate the recovery and creation of resilient landscapes and to repair or replace minor assets damaged or destroyed by the wildfire event. Identification and rapid treatment of areas in priority greater sage-grouse habitat that are unlikely to recover naturally are particularly important given the long timeframes often necessary to restore sagebrush steppe and the need to establish native grasses and vegetation in order to prevent invasion by non-native species such as cheatgrass. Treatments funded in BAR may build on ES measures and may currently continue to be implemented for up to three years from containment of the fire. At present, after three years, the bureaus' resource management programs may assume responsibility for further landscape restoration and monitoring in accordance with LUPs and bureau mission goals.

The ES program is funded as part of the Suppression Operations activity of the Department's Wildland Fire Management appropriation and is currently limited to 10 percent of the 10-year suppression expenditure average. This amount is, at present, allocated to the four wildland fire management bureaus based on the rolling 10-year average of acres burned by each bureau, excluding Alaska. Burned Area Emergency Response (BAER) teams complete assessment plans to determine values at risk for priority treatments. Generally, the ES program is able to meet funding needs and availability in most years. However, during extreme fire years, especially in the Great Basin region, ES needs have exceeded funding limits.

The BAR program is funded through the BAR sub-activity of the Department's Wildland Fire Management appropriation. Currently, funds are allocated to bureaus on a project-by-project basis using a standard set of scoring criteria. Generally, funds are allocated shortly after enactment of appropriations for wildfires that occurred in the previous fiscal year. In some years, available funding is insufficient for qualified projects; and in others, funding exceeds needs. In the latter case, funds are carried forward to be used for future needs. Delays in final appropriations at the beginning of the fiscal year have delayed timely funding of projects in some years.

Several topics have been identified that affect the ability of the post-fire recovery programs of ES and BAR to support protection, conservation, and restoration of the health of the sagebrush-steppe ecosystem.

1. Lack of consistent and explicit linkage between ES treatments, BAR treatments, and efficacy of longer-term restoration treatments;
2. Whether the current ES 10 percent cap is appropriate, and whether an effective fiscally responsible alternative can be offered;
3. The current time limitations of one year for ES and three years for BAR are not based on the ecological or logistical parameters that may be faced in post fire recovery; therefore, a fiscally responsible, extension process should be developed for unusual circumstances;
4. Fall treatment windows for BAR are missed because of current delays in the prioritization process and in funding availability early in the fiscal year;
5. Fall treatment windows for BAR are missed because of financial management and procurement protocols; and criteria for award of projects does not recognize values at risk and land/resource management priorities.

Methodology

The Interior Burned Area Response National Coordinators (IBAER) for the BLM, FWS, National Park Service (NPS), and Bureau of Indian Affairs (BIA) met the first week of February 2015 in conjunction with the U.S. Department of Agriculture (USDA) Forest Service (USFS) National Burned Area Emergency Rehabilitation (NBAER) coordinator and the OWF liaison to identify, discuss, and develop solutions to ensure ES and BAR policy and programs are able to support the policy objectives of the Order. The NBAER coordinators have worked with the (Federal) local units, OWF, Joint Fire Sciences Program (JFSP), USFS research stations, and their natural resource counterparts on short- and long-term post-wildland fire rangeland restoration activities to meet the objectives of the Order, with emphasis on the Great Basin region. Additional outreach to academicians and non-federal researchers and institutions with experience and expertise in landscape restoration relevant to sagebrush steppe should continue.

Policies and program actions taken for ES and BAR can have significant impacts on the restoration cycle and can be critical to the potential longer term restoration objectives in the sagebrush steppe. The efforts in the Order related to fuels management and a long-term restoration strategy have to be integral and simultaneous to the development of future policy. Bureau resource specialists and managers need to participate in these discussions. The Department will initiate a discussion regarding roles and responsibilities for overarching policy in this regard and identify options for future program and project level policy direction in relation to rangeland fire restoration objectives.

Actions Underway

- The Department has a BAR reserve fund of \$1.5 million for the FY 2015 wildfire season to address late season BAR treatments that carry into FY 2016.
- IBAER and the bureaus will incorporate current scientific knowledge into project development and implementation. Science and research knowledge will be communicated at the NBAER team preseason meeting, trainings, and other venues.

Proposed Actions

Prior to the 2015 Western Wildfire Season

Further actions to be taken prior to the 2015 Western fire season to review and update emergency stabilization and burned area rehabilitation policies and programs to integrate with long-term restoration activities targeted to high priority greater sage-grouse habitat areas in the Great Basin include:

Action Item #1

Review and update ES and BAR policy guidance to address rating and evaluation criteria, project design to promote the likelihood of treatment success, cost containment, monitoring, and continuity and transition to long-term restoration activities and treatments.

- *BAR evaluation and rating criteria.* The updated criteria for the 2015 fire season allocation will reflect the provisions of the Order to fund projects on a priority basis and will be applied without regard to individual agency mission or bureau fixed funding percentage. The updated criteria will spell out Departmental expectations at the program level and will prioritize funding for BAR projects that include funding commitments for continued treatments after three years, using funds from non-fire bureau programs to ensure that long term recovery objectives are met. Where appropriate, project design should include FIAT scientific criteria in the project decision processes to ensure that the most viable projects are considered for treatment and funding and give added consideration to the restoration of areas identified in RMPs as sage grouse focal areas and/or priority greater sage-grouse habitat.
- *Review ES policy and procedures.* Issues to be addressed include developing an exception process to allow funding beyond 1 year of containment for high priority treatments; procedures for exceeding the current 10 percent ES Authority Level; developing criteria for performance objectives that account for probability of success; and include including FIAT scientific criteria in the project design to ensure that the most viable projects are approved.

Responsibility: IBAER/OWF/Federal Fire Policy Council (FFPC)

Target: June 1, 2015

415 **Action Item #2**

416 *Address acquisition, financial management, and other procedures that pose challenges to timely*
417 *project implementation. Work with Departmental and bureau acquisition and finance offices to*
418 *provide funding and project continuity at the beginning of, and across, fiscal years.*

419 **Responsibility:** OWF/Bureau designated representatives

420 **Target:** July 1, 2015

421 **Action Item #3**

422 *Accelerate schedule approving BAR projects consistent with the guidelines established for the*
423 *2015 fire season. In conjunction with the review of the ES and BAR policy and program*
424 *priorities (Action item #1 above), accelerate preliminary approvals that will allow sufficient lead*
425 *time to complete cultural and other clearances (e.g., National Environmental Protection Act*
426 *[NEPA]⁵ and National Preservation Act of 1966 [Section 106]⁶), procurement planning, and*
427 *other advance work that will take place prior to the application of full funding at the beginning of*
428 *the fiscal year. This new schedule will be used for 2015 fires.*

429 **Responsibility:** IBAER/DOI Bureaus

430 **Target:** June 1, 2015

431 **Action Item #4**

432 *Identify non-fire programs and activities that will fund treatments and restoration activities for*
433 *the long term in conjunction with BAR and ES policy and program review to be conducted in*
434 *2015. Funding of ES and BAR projects will be evaluated based on opportunities and*
435 *commitments from non-fire program and activities if the work that is proposed will extend*
436 *beyond the ES and BAR duration. This requirement is necessary for long-term success as noted*
437 *in Action Item #1.*

438 **Responsibility:** All affected bureaus (BIA, BLM, FWS, NPS)

439 **Target:** June 1, 2015

440 **Action Item #5**

441 *Identify requirements for National Fire Plan Operations and Reporting System (NFPORS)*
442 *capabilities. Implementation of new criteria for project evaluation and oversight may require*
443 *updates and changes to NFPORS.*

444 **Responsibility:** IBAER/DOI Bureau Representatives

⁵ The purpose of NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision-making process undertaken by Federal agencies. The act establishes the national environmental policy, including a multidisciplinary approach to considering environmental effects in Federal Government agency decision-making.

⁶ Section 106 requires federal agencies to consider the effects of projects they carry out, approve, or fund on historic properties.

445 **Target:** June 1, 2015

446 *During 2015, 2016, and Beyond*

447 Longer term actions will begin in 2015, with full implementation in subsequent years to improve
448 program effectiveness, efficiency and reduce costs:

- 449 1. Work with tribal and agency plant material specialist to improve efficiencies in rangeland
450 seeding operations for ES and BAR.
- 451 2. Beginning in 2015, conduct an in-depth assessment to determine how to integrate, ES,
452 BAR, and restoration programs and develop processes for long term restoration
453 commitment and maintenance of the local unit for ES and BAR treatments.
- 454 3. Work with the science and research community to investigate and improve the
455 effectiveness of post-wildland fire protection, conservation, and restoration treatments,
456 incorporating traditional ecological knowledge.
- 457 4. Expand efforts to utilize native and non-native seed and vegetation plantings, where
458 appropriate, to accelerate efforts to improve and restore post-fire rangeland health.

7(b) ix. - Seed Strategy

Issue Description/Overview

Develop a comprehensive strategy for acquisition, storage, and distribution of seeds and other plant materials.

Native plant communities are essential to ecosystem integrity and diversity, and they provide ecosystem services that sustain wildlife, such as greater sage-grouse. The spread of invasive species, altered wildfire regimes, habitat fragmentation, and climate change have negatively affected many native plant communities and the species that depend upon them. To slow and ultimately reverse these trends in the greater sage-grouse habitat areas, a reliable supply of genetically appropriate and locally adapted seed is needed, as well as seeding technology and equipment for successful and expanded effective restoration of the sagebrush-steppe ecosystem.

The BLM is working with Federal, non-federal, and state partners to develop the National Seed Strategy and its implementation plan to cover 2015-2020. The National Seed Strategy is aimed at providing land managing agencies the tools they need to facilitate ecological restoration across the United States, including acquisition, storage, and distribution of native seed and other plant materials. Implementation of the National Seed Strategy will enhance coordination across agencies and forge the strong partnerships among agencies, states, tribes, non-governmental organizations, and the private seed and nursery industry that are vital to restoring healthy, functioning ecosystems.

Methodology

The National Seed Strategy is being developed by the interagency Plant Conservation Alliance (PCA), with BLM as the lead and representation from 11 additional Federal agencies (BIA, NPS, U.S. Geological Survey [USGS], FWS, Federal Highway Administration [FHA], Smithsonian Institution, U.S. Botanic Garden, USDA Agricultural Research Service [ARS], USFS, USDA National Institute of Food and Agriculture [NIFA], and USDA Natural Resource Conservation Service [NRCS]), multiple state, and non-governmental organizations. Drafting teams were formed by PCA Federal committee members and the draft was released to Western Governors' Association, Association of Fish and Wildlife Agencies (AFWA) and the Plant Conservation Non-federal Committee. Working groups, under the coordination of the Plant Conservation Alliance Federal and non-federal committees, will be formed to carry out the implementation plan and resolve issues that arise.

Actions Underway

Prior to the 2015 Western Wildfire Season

Action Item #1

Identify a forum to discuss and highlight current native seed and restoration techniques and research with a focus on dry site restoration and environmental change. The Great Basin Consortium Annual Meeting will include a full day for GBNPP cooperator presentations.

496 **Responsible Parties:** BLM, USGS, USFS, FWS, Academia, and Non-Governmental
497 Organizations (NGOs)

498 **Target:** February 2015

499 **Action Item #2**

500 *Identify seed, research, and decision support tool needs and develop communication plan.*

501 Develop the draft National Seed Strategy and Implementation Plan (2015 – 2020) including:

- 502 • Identify seed needs and ensure the supply of genetically appropriate and locally adapted
503 seed;
- 504 • Identify research needs to develop seed and improve technology for production and
505 ecological restoration;
- 506 • Develop decision tools for managers; and
- 507 • Communicate appropriate seed use with agency personnel.

508 **Responsible Parties:** BLM is the lead agency with support from BIA, FHA, USFS, FWS, NPS,
509 ARS, NRCS, NIFA, and USGS

510 **Target:** April 2015

511 **Action Item #3**

512 *Identify a forum to discuss and highlight current native seed and restoration techniques and*
513 *research. Attend the Institute for Applied Ecology's National Native Seed Conference.*

514 **Responsible Party:** BLM and USFS

515 **Target:** April 2015

516 **Action Item #4**

517 *National Seed Strategy and Implementation Plan 2015 – 2020. Increase production, storage*
518 *capacity acquisition, and use of genetically appropriate and locally adapted seed. Solicit*
519 *research proposals to help implement the National Seed Strategy.*

520 **Responsible Parties:** BLM will be the lead agency with support from BIA, FHA, USFS, FWS,
521 NPS, ARS, NRCS, NIFA, and USGS

522 **Target:** April 2015

523 **Action Item #5**

524 *Provide an opportunity to discuss current research, case-studies, and tools that inform applied*
525 *restoration opportunities in the Great Basin. A series of 15 webinars on seeding and restoration*
526 *entitled, "The Right Seed in the Right Place at the Right Time: Tools for Sustainable*
527 *Restoration" are being offered through May 2015.*

528 **Responsible Parties:** BLM and USFS Great Basin Native Plant Project (GBNPP), Society for
529 Ecological Restoration, and Fire Science Exchange

530 **Target:** May 2015

531 *During 2015, 2016, and Beyond*

532 Longer term actions will begin in 2015, with full implementation in subsequent years, to improve
533 program effectiveness, efficiency and reduce costs:

- 534 1. Provide useful information for managers when making decisions about the selection of
535 genetically appropriate plant materials and technologies for vegetation restoration.
- 536 2. Develop commercial seed for long-term conservation for future climates. Collect native
537 seed from across the distribution of the species for use in developing commercial seed
538 and for long-term seed banking to ensure conservation of germplasm for future climates.
- 539 3. Establish pilot projects that will serve as training/demonstration sites on planting native
540 seed species with monitoring to determine the effectiveness of the restoration techniques.
- 541 4. Develop a Business Plan for National Seed Strategy. Identify funding sources and
542 processes necessary to implement the National Seed Strategy.
- 543 5. Develop interagency budget initiative for FY 2017. Work across agencies and
544 Departments to initiate an interagency budget initiative for funds to implement the
545 National Seed Strategy.
- 546 6. Produce 100,000 sagebrush seedlings annually for greater sage-grouse habitat restoration
547 through the Sagebrush Grow Out program (seedlings are grown for planting into wildfire
548 burned areas or restoration areas to establish native plant communities), in five Great
549 Basin prisons.
- 550 7. Coordinate and collaborate across agencies on current and future climate trend data.
551 Understand the trends in climate, across the Western United States with a focus on
552 sagebrush-steppe and pinyon/juniper ecosystems.
- 553 8. Increase the availability of native seed for the Great Basin. Increase and grow-out of
554 native plant species for the restoration of the sagebrush-steppe ecosystem within the
555 Great Basin, which will provide necessary structure and habitat, as well as dietary, and
556 other benefits for the greater sage-grouse.

557

Summary

The time to address the threats to sagebrush-steppe habitat is now—not in 5 or 10 years, when the West is more fragmented, wildfires are more intense, or invasive species have gained more ground. The Order sets in motion options to enhance the protection, conservation, and restoration of a healthy sagebrush-steppe ecosystem in the Great Basin, and addresses important public safety, economic, cultural, and social concerns. This Initial Report, compiled by four interagency task groups to identify immediate actions we can take prior to the 2015 Western wildfire season, is just the first step. In the coming months, nine interagency task groups will work collaboratively with other Federal, tribal, state, and local governmental partners and stakeholders to identify longer-term actions and activities to further meet the intent of the Order and to ensure the allocation of fire management resources and assets before, during, and after wildland fire incidents and investments related to restoration activities, will reflect this priority.



DRAFT, dated 2/17/15

SO 3336 – The Initial Report

*A Strategic Plan for
Addressing Rangeland Fire
Prevention, Management, and
Restoration in 2015*



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Introduction

The accelerated invasion of non-native annual grasses, along with drought, and the effects of climate change, created conditions that are leading to an increased threat of rangeland fires to the sagebrush landscape and the more than 350 species of birds, plants, and animals, including the golden eagle, mule deer, elk, and pronghorn antelope, that rely on this critically important ecosystem. In 2010, the U.S. Fish and Wildlife Service (FWS) found that the invasion of annual grasses and the loss of habitat from fire in the Great Basin is a significant threat to the greater sage-grouse in that portion of its remaining range. The FWS is now considering whether protections under the Endangered Species Act are warranted. Most importantly, the increased frequency and intensity of rangeland fire poses a significant threat to the many tribal and local communities, ranchers, hunters, and others, who live in, work, and/or value the iconic sagebrush-steppe landscape and who, for generations, have depended upon these lands and resources to sustain their way of life.

Secretarial Order 3336 (the Order) places a priority on “protecting, conserving, and restoring the health of the sagebrush-steppe ecosystem and, in particular, greater sage-grouse habitat, while maintaining safe and efficient operations,” and looks to the allocation of fire resources and assets associated with wildland fire and investments related to restoration activities to reflect that priority.

Given the high priority placed by the Secretary on addressing the significant threat of rangeland fire, Section 5 of the Order directed the Task Force to deliver to the Secretary a science-based comprehensive strategy to reduce the threat of large-scale rangeland fire to habitat for the greater sage-grouse and the sagebrush-steppe ecosystem through effective rangeland management (including the appropriate use of livestock), fire prevention, fire suppression, and post fire restoration efforts at a landscape scale. Specifically, the Order calls for an [Implementation Plan](#), issued on February 1, 2015, and two reports—an Initial Report due March 1, 2015, and a Final report, due May 1, 2015. *The Initial Report: A Strategic Plan for Addressing Rangeland Fire Prevention, Management, and Restoration in 2015* (Initial Report), details specific actions and initiatives that will be taken in advance of the 2015 Western fire season.

The actions identified and described in this first report represent an initial effort to improve the efficiency and efficacy of our rangeland fire management efforts in the short-term, prior to the 2015 Western wildfire season, as directed in the Order. These activities will involve targeted, strategic investments of Departmental resources to enhance efforts to manage rangeland fire in specific portions of the Great Basin. Detailed actions in this first report include recommendations to:

- prioritize and allocate firefighting assets to give increased focus to suppressing wildfire in highly valuable portions of the sagebrush-steppe ecosystem to reduce the loss of critically-important greater sage-grouse habitat; and

- accelerate efforts to restore rangelands that are damaged by wildfire to native plants and grasses to help improve the health of this ecosystem.

There are also actions identified in this report that will begin in 2015 but will carry on into the future for completion. Those associated actions are identified in the sections entitled, “2015, 2016, and Beyond.”

Section 7(b) i. – Integrated Response Plans

Issue Description/Overview

Design and implement comprehensive, integrated fire response plans for the Fire and Invasives Assessment Tool (FIAT) evaluation areas and other areas in the Great Basin that prioritize protection of low resilience landscapes most at-risk to detrimental impacts of fire and invasives.

The Order is intended to: (1) enhance the capability and capacity of state, tribal, and local government, and non-governmental fire management organizations, including local cooperators (e.g., rangeland fire protection associations, rural fire associations, and volunteer fire departments) through improved and expanded education and training; (2) improve coordination among all partners involved in rangeland fire management to further improve safety and effectiveness; (3) conduct reviews of existing programs policies and practices associated with current suppression and prevention of the sagebrush steppe; and (4) commit wildland fire management resources and assets to prepare for and respond to rangeland fires.

To accomplish these tasks agencies will apply a risk-based, cross-boundary approach to wildland fire response planning and preparedness by incorporating the rangeland fire suppression priorities into the revision of Fire Management Plans (FMPs) and Land Use Plans (LUPs) and update computer assisted dispatch (CAD) systems to assure initial attack response to priority greater sage-grouse habitat to ensure they provide for appropriate availability of response of suppression resources. Priorities will be consistent with the [Guidance for Implementation of the Federal Wildland Fire Management Policy](#), dated February 13, 2009, and priorities outlined in the Order.

Methodology

The lead agency for developing actions associated with this sub-section of the Order is the Bureau of Land Management (BLM), Fire and Aviation. BLM worked with Federal agency wildland fire management staffs and state agency administrators from the Great Basin states to develop the proposed actions outlined below.

These proposed actions incorporate: (1) relevant recommendations from the operations group at [The Next Steppe: Sage Grouse and Rangeland Fire in the Great Basin](#) conference held in Boise, Idaho, the first week of November 2014; (2) fire management knowledge and expertise; and (3) policies and procedures outlined in the [Interagency Standards for Fire and Fire Aviation Operations](#) handbook (Red Book), the [National Interagency Mobilization Guide](#), and other Departmental policies.

Actions Underway

For the last three years, dispatch centers within the Great Basin and those centers with greater sage-grouse habitat, have been implementing priority wildfire response to sagebrush ecosystems that support greater sage-grouse species. This prioritization is consistent with existing BLM

policy and guidance, including Best Management Practices (BMPs), and Instructional Memoranda.

The Dispatch Centers have identified priority areas based upon state fish and wildlife agencies priority greater sage-grouse maps and the numbers and types of resources for response to those areas in their individual CAD systems. For example, during multiple fire start situations, priority greater sage-grouse areas have received additional suppression resources compared to other areas. Continued and enhanced efforts in this regard are now a critical Department of the Interior natural resource priority for all of its component agencies and bureaus.

Proposed Actions

Prior to the 2015 Western Wildfire Season

Prior to the 2015 Western wildfire season, all units that manage priority greater sage-grouse habitat will complete the actions identified in this section of the Initial Report:

Action Item #1

Increase the capabilities of Rural/Volunteer Fire Departments and Rangeland Fire Protection Associations (RFPAs) and enhance the development and use of Veterans Crews. Continue providing training to cooperators, assess training and qualifications needs of cooperators, and expand training opportunities into the future to add significant capacity for initial attack and control of fast-moving wildfires in the Great Basin, with a primary focus in the FIAT areas. Coordinate with state, tribal, and local government partners to leverage training assets and capabilities. Specifically, BLM/DOI will seek to deliver training to cooperators and increase the utilization of Veterans crews before the 2015 fire season.

Responsible Parties: OWF/Agency Fire Leadership

Target: April 1, 2015

Action Item #2

Ensure local, Multi-Agency Coordination (MAC) groups are functional, and MAC plans are updated. MAC groups will ensure direction is provided on resource allocation and prioritization for greater sage-grouse habitat protection.

Responsible Parties: MAC groups working with local Federal wildland fire suppression agencies, tribes, state fire suppression agencies, and local fire departments.

Target: May 1, 2015

Action Item #3

Develop and implement minimum draw-down level¹ and step up plans² to ensure resources are available for protection in priority greater sage-grouse habitat. All units managing priority

¹ The minimum level of personnel and equipment resources needed (at either the local or national level) without compromising response capability.

greater sage-grouse habitat will develop and implement a minimum draw-down level and step up plans to clearly identify those suppression resources necessary in order to maintain an effective, aggressive initial attack capability.

Responsible Parties: Federal local unit Fire Management Officers (FMOs), in coordination with cooperators and reviewed by Federal state/regional FMOs.

Target: May 1, 2015

Action Item #4

Apply a coordinated, risk-based approach to wildfire response to assure initial attack response to priority areas. Apply a risk-based approach to fire response, coordinated across jurisdictional boundaries; review and update CAD systems to assure initial attack response to priority greater sage-grouse areas to ensure greater sage-grouse habitat is protected.

Responsible Parties: Local MAC Groups and unit FMOs, with review by Federal regional/state FMOs

Target: May 1, 2015

Action Item #5

Develop a standardized set of briefing materials. Prepare standardized briefing materials on sagebrush-steppe and greater sage-grouse wildfire protection for incoming Type 1 – 3 Incident Management Teams (IMTs) and other fire management resources. Materials will include, at a minimum:

- Suppression, operations, and rehabilitation BMPs;
- Maps of priority greater sage-grouse areas, strategic fuel breaks, initial attack asset locations and response times;
- LUPs and FMP guidance; and
- Relevant local unit data related to sagebrush-steppe conservation and restoration is pre-loaded into the Wildland Fire Decision Support System (WFDSS).

Responsible Parties: Geographic Area Coordinating Centers (GACCs) and local MACs

Target: May 1, 2015

Action Item #6

Review and update local plans and agreements for consistency and currency to ensure initial attack response to priority greater sage-grouse areas. Included are:

- Fire Prevention Plans;

² Step-up Plans, (also called Staffing Plans), are designed to direct incremental preparedness actions in response to increasing fire danger.

- 144 • WFDSS data updates;
- 145 • Fire Danger Operating Plans (National Fire Danger Rating System);
- 146 • Preparedness Level Plans; and
- 147 • Up-to-date, approved Agreements and Annual Operating Plans.

148 **Responsible Parties:** Federal local unit FMOs, in coordination with cooperators and with review
149 by Federal regional/state FMOs to provide consistency for all wildland fire related planning and
150 documentation to include greater sage-grouse protection.

151 **Target:** May 15, 2015

152 **Action Item #7**

153 *Develop supplemental guidance for the use of “severity funding”³.* This will focus on
154 maintaining initial attack success rate, capabilities, and preservation of greater sage-grouse
155 priority habitat by developing supplemental guidance for the use of severity funding that
156 provides specific greater sage-grouse stipulations to access funding and implement supplemental
157 fire suppression resources. This will provide the Department the ability to bring in additional
158 non-agency resources to provide protection of sagebrush ecosystems when fuels and weather
159 conditions do not meet the present criteria for severity funding.

160 **Responsible Party:** DOI Office of Wildland Fire (OWF) in coordination with the BLM.

161 **Target:** May 15, 2015

162 **Action Item #8**

163 *Evaluate the effectiveness of action plans.* Develop annual reporting metrics for effectiveness
164 monitoring of wildland fire response, with particular emphasis on the effectiveness of measures
165 to improve success in rangeland fire response, based upon CAD changes, and reporting of
166 success and/or failure as it pertains to LUPs and FMPs, and effectiveness of enhanced training
167 and capacity measures.

168 **Responsible Parties:** DOI OWF and Federal Agency Fire Directors

169 **Target:** May 30, 2015

170 **Action Item #9**

171 *Develop means to provide maps of priority greater sage-grouse areas to local MAC groups and*
172 *unit FMOs, using appropriate technology, in order to improve ability to target fire management*
173 *activities. Implement pilot(s) to demonstrate the use of this technology during the 2015 wildfire*
174 *season.*

175 **Responsible Parties:** Federal Agency National Leadership

³ Suppression funds used to increase the level of pre-suppression capability and fire preparedness when predicted or actual burning conditions exceed those normally expected, due to severe conditions.

176 **Target:** June 1, 2015

177 **Action Item #10**

178 *Ensure compliance and evaluation of the implementation plan action items.* During annual
179 preparedness reviews, all CAD systems and MAC plans will be reviewed for compliance with
180 the action plans outlined in Action Items #1 and #4.

181 **Responsible Parties:** Local Unit FMO and Federal regional/state Fire Management Officer

182 **Target:** July 1, 2015

183 **During 2015, 2016, and Beyond**

184 Longer term actions will begin in 2015, with full implementation in subsequent years, to improve
185 program effectiveness, efficiency and reduce costs:

- 186 1. Update FMPs to promote protection, conservation, and restoration of sagebrush-steppe
187 and priority greater sage-grouse habitat.
- 188 2. Increase the availability of technology and technology transfer to wildland fire managers
189 and resources. Access to real time maps, information, and data increases the success of
190 suppression resources responding to the wildfire threats to priority greater sage-grouse
191 habitat. To increase this availability, agencies should make available the most current
192 hardware and software and increase the rate of radio system upgrades. This action will
193 build on experience gained from implementation of item #9 during the 2015 fire season.

194

7(b) ii - Prioritization and Allocation of Resources

Issue Description/Overview

Provide clear direction on the prioritization and allocation of fire management resources and assets.

Prioritization and allocation of fire management resources takes place on multiple scales by the “organizational owners⁴” of the resources and assets, both within the individual organizations and in coordination and collaboration with each other. Locally, assets and resources are prioritized prior to incidents through pre-incident response plans (often known as “run cards”) and by local determinations about which resources and assets are retained for local use only and those available for assignment to other locations. MAC groups, or the equivalent, are composed of agency managers and set guidelines and parameters for response (mobilization guides), including priorities and criteria for allocation of resources and assets.

At the national level, the National Multi-Agency Coordinating (NMAC) Group prioritizes allocation of resources and assets among the nine geographic areas, as identified by the [National Interagency Coordination Center](#) (NICC). Geographic Multi-Agency Coordinating (GMACs) Groups prioritize allocation of resources and assets among fires within their respective geographic areas. Overall priorities for allocation of wildland fire management resources and assets are guided by agency fire management policies. National priorities are typically set prior to the onset of wildfire season through “direction to leaders” documents issued by national agency leadership. Command responsibility for each incident lies with the local line officer or agency administrator, usually through a delegation of authority to an incident commander.

The Order directs that protecting, conserving, and restoring the health of the sagebrush-steppe ecosystem is a critical fire management priority for the Department of the Interior, requiring that the tools and processes for prioritization and allocation of fire management resources reflect that priority (see [Section 4 of the Order](#)).

Potential challenges and considerations for providing clear direction on prioritization and allocation of fire management resources and assets include:

- Clear understanding of roles and responsibilities at all levels and scales;
- Maintaining national level fire activity situational awareness;
- Clear communication of leadership priorities;
- Communicating fire activities and conditions to agency leadership throughout the fire season;
- Adjudicating competing priorities, especially between multiple agencies and levels of government;

⁴ Organizational Owner is the organization (Federal, state, or local) that funds the resource

- Adjudicating competing strategic priorities for federal fire resources for non-fire emergencies;
- Increased ability to manage the movement and pre-positioning of fire management assets;
- Strengthening support from Department of Defense (DOD) and international partners; and
- Reduced levels of key assets such as crews and aviation.

Methodology

Actions and recommendations were developed through conversation with the NMAC, with Federal fire leadership in the Department of the Interior and USDA Forest Service (USFS), and with representatives from the National Association of State Foresters (NASF) and western states.

Actions Underway

A number of actions are underway to address prioritization and allocation of wildland fire management resources:

- Local, unit level reviews of pre-attack dispatch plans and pre-positioning of response resources in coordination with partner and cooperator organizations;
- Revisions and updates to the *National Mobilization Guide* to increase clarity of policies and procedures.

Proposed Actions

Prior to the 2015 Western Fire Season

Further actions to be taken prior to the 2015 Western fire season to provide clear direction on the prioritization and allocation of fire management resources and assets include:

Action Item #1

Communication plan. Establish protocols for providing Federal agency leadership with regular briefings and information on wildfire activity, fire conditions, and significant issues in relation to rangeland fire and the implementation of the Order throughout the 2015 wildfire season in order to provide leadership with an accurate understanding and insight to the conditions on the ground. Senior leadership will regularly communicate national strategic priorities and expectations to line officers and fire staffs during the wildfire season.

Responsibility: National agency fire leadership (DOI Bureaus and USFS)

Target: April 1, 2015

259 **Action Item #2**

260 *Review and update the delegation of authority for the NMAC Group.* Ensure clarity of role,
261 function, responsibility, and accountability, specifically in relation to the policy direction for
262 addressing rangeland fire in the Order.

263 **Responsibility:** National agency leadership (DOI Bureaus/USFS/National Association of State
264 Foresters [NASF])

265 **Target:** May 1, 2015

266 **Action Item #3**

267 *Issue national level “Leaders’ Intent.”* Provide expectations, direction, priorities, and objectives
268 for NMAC, GMACs, line officers and fire management staff.

269 **Responsibility:** National agency leadership (DOI Bureaus/USFS/NASF)

270 **Target:** May 1, 2015

271 **Action Item #4**

272 *Engage GMAC Groups.* Communicate Leaders’ Intent and expectations for prioritization and
273 allocation of fire management resources and assets in relation to rangeland fire.

274 **Responsibility:** National agency leadership (DOI Bureaus/USFS/NASF)

275 **Target:** May 1, 2015

276 **Action Item #5**

277 *Develop “Delegation of Authority” template for use by local line officers.* Create standard
278 language for use in a Delegation of Authority template that identifies the sage-steppe ecosystem
279 and protection of species as a priority. Line officers will use this standard template when
280 delegating authority to an Incident Commander who has responsibility for managing a wildfire
281 incident within a FIAT area or has nexus to one.

282 **Responsibility:** NMAC

283 **Target:** May 1, 2015

284 **Action Item #6**

285 *Engage line officers to communicate Leaders’ Intent and expectations.* Each agency use
286 appropriate internal mechanisms to communicate intent and expectations to regional and unit
287 level managers.

288 **Responsibility:** Federal agency leadership (USFS/DOI Bureaus)

289 **Target:** June 1, 2015

During 2015, 2016, and Beyond

Longer-term actions, to begin in 2015 with full implementation in subsequent years, will be taken to improve utilization of fire management resources and assets in relation to rangeland fire and increase efficiency and reduce costs:

1. Reduce administrative barriers (e.g., the lack of a travel credit card for fire crews limits the expeditious assignment and reassignment of fire personnel resources from one incident to another) to the mobility of resources and assets;
2. Enhance predictive services capability to anticipate resource and asset needs;
3. Enhance fire intelligence capability to better plan for and utilize resources and asset;
4. Engage international and Department of Defense (DOD) partners;
5. Improve cooperative agreements between Federal, tribal, and state entities;
6. Better management of radio spectrum;
7. Enhance ability of communities to provide local protection;
8. Address areas without previously defined protection responsibilities;
9. Expand capabilities of tribal, state, and local agencies to provide fire protection; and
10. Develop a mechanism to capture and analyze data regarding wildfire impacts to priority sagebrush-steppe ecosystems.

7(b) v. - Post-Fire Recovery

Issue Description/Overview

Review and update emergency stabilization and burned area rehabilitation policies and programs to integrate with long-term restoration activities.

Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) funding are two separate Department programs with two distinct purposes, authorities, and budgets. The purpose of the ES program is to undertake emergency treatments to minimize threats to life or property and to stabilize or prevent unacceptable degradation to natural and cultural resources from the effects of wildfire. Currently, emergency stabilization is performed within one year of containment of a wildfire, though projects may be monitored for up to three years.

The purpose of the BAR program is to identify those areas unlikely to recover naturally from severe wildfire damage and take actions to initiate the recovery and creation of resilient landscapes and to repair or replace minor assets damaged or destroyed by the wildfire event. Identification and rapid treatment of areas in priority greater sage-grouse habitat that are unlikely to recover naturally are particularly important given the long timeframes often necessary to restore sagebrush steppe and the need to establish native grasses and vegetation in order to prevent invasion by non-native species such as cheatgrass. Treatments funded in BAR may build on ES measures and may currently continue to be implemented for up to three years from containment of the fire. At present, after three years, the bureaus' resource management programs may assume responsibility for further landscape restoration and monitoring in accordance with LUPs and bureau mission goals.

The ES program is funded as part of the Suppression Operations activity of the Department's Wildland Fire Management appropriation and is currently limited to 10 percent of the 10-year suppression expenditure average. This amount is, at present, allocated to the four wildland fire management bureaus based on the rolling 10-year average of acres burned by each bureau, excluding Alaska. Burned Area Emergency Response (BAER) teams complete assessment plans to determine values at risk for priority treatments. Generally, the ES program is able to meet funding needs and availability in most years. However, during extreme fire years, especially in the Great Basin region, ES needs have exceeded funding limits.

The BAR program is funded through the BAR sub-activity of the Department's Wildland Fire Management appropriation. Currently, funds are allocated to bureaus on a project-by-project basis using a standard set of scoring criteria. Generally, funds are allocated shortly after enactment of appropriations for wildfires that occurred in the previous fiscal year. In some years, available funding is insufficient for qualified projects; and in others, funding exceeds needs. In the latter case, funds are carried forward to be used for future needs. Delays in final appropriations at the beginning of the fiscal year have delayed timely funding of projects in some years.

Several topics have been identified that affect the ability of the post-fire recovery programs of ES and BAR to support protection, conservation, and restoration of the health of the sagebrush-steppe ecosystem.

1. Lack of consistent and explicit linkage between ES treatments, BAR treatments, and efficacy of longer-term restoration treatments;
2. Whether the current ES 10 percent cap is appropriate, and whether an effective fiscally responsible alternative can be offered;
3. The current time limitations of one year for ES and three years for BAR are not based on the ecological or logistical parameters that may be faced in post fire recovery; therefore, a fiscally responsible, extension process should be developed for unusual circumstances;
4. Fall treatment windows for BAR are missed because of current delays in the prioritization process and in funding availability early in the fiscal year;
5. Fall treatment windows for BAR are missed because of financial management and procurement protocols; and criteria for award of projects does not recognize values at risk and land/resource management priorities.

Methodology

The Interior Burned Area Response National Coordinators (IBAER) for the BLM, FWS, National Park Service (NPS), and Bureau of Indian Affairs (BIA) met the first week of February 2015 in conjunction with the U.S. Department of Agriculture (USDA) Forest Service (USFS) National Burned Area Emergency Rehabilitation (NBAER) coordinator and the OWF liaison to identify, discuss, and develop solutions to ensure ES and BAR policy and programs are able to support the policy objectives of the Order. The NBAER coordinators have worked with the (Federal) local units, OWF, Joint Fire Sciences Program (JFSP), USFS research stations, and their natural resource counterparts on short- and long-term post-wildland fire rangeland restoration activities to meet the objectives of the Order, with emphasis on the Great Basin region. Additional outreach to academicians and non-federal researchers and institutions with experience and expertise in landscape restoration relevant to sagebrush steppe should continue.

Policies and program actions taken for ES and BAR can have significant impacts on the restoration cycle and can be critical to the potential longer term restoration objectives in the sagebrush steppe. The efforts in the Order related to fuels management and a long-term restoration strategy have to be integral and simultaneous to the development of future policy. Bureau resource specialists and managers need to participate in these discussions. The Department will initiate a discussion regarding roles and responsibilities for overarching policy in this regard and identify options for future program and project level policy direction in relation to rangeland fire restoration objectives.

Actions Underway

- The Department has a BAR reserve fund of \$1.5 million for the FY 2015 wildfire season to address late season BAR treatments that carry into FY 2016.
- IBAER and the bureaus will incorporate current scientific knowledge into project development and implementation. Science and research knowledge will be communicated at the NBAER team preseason meeting, trainings, and other venues.

Proposed Actions

Prior to the 2015 Western Wildfire Season

Further actions to be taken prior to the 2015 Western fire season to review and update emergency stabilization and burned area rehabilitation policies and programs to integrate with long-term restoration activities targeted to high priority greater sage-grouse habitat areas in the Great Basin include:

Action Item #1

Review and update ES and BAR policy guidance to address rating and evaluation criteria, project design to promote the likelihood of treatment success, cost containment, monitoring, and continuity and transition to long-term restoration activities and treatments.

- *BAR evaluation and rating criteria.* The updated criteria for the 2015 fire season allocation will reflect the provisions of the Order to fund projects on a priority basis and will be applied without regard to individual agency mission or bureau fixed funding percentage. The updated criteria will spell out Departmental expectations at the program level and will prioritize funding for BAR projects that include funding commitments for continued treatments after three years, using funds from non-fire bureau programs to ensure that long term recovery objectives are met. Where appropriate, project design should include FIAT scientific criteria in the project decision processes to ensure that the most viable projects are considered for treatment and funding and give added consideration to the restoration of areas identified in RMPs as sage grouse focal areas and/or priority greater sage-grouse habitat.
- *Review ES policy and procedures.* Issues to be addressed include developing an exception process to allow funding beyond 1 year of containment for high priority treatments; procedures for exceeding the current 10 percent ES Authority Level; developing criteria for performance objectives that account for probability of success; and include including FIAT scientific criteria in the project design to ensure that the most viable projects are approved.

Responsibility: IBAER/OWF/Federal Fire Policy Council (FFPC)

Target: June 1, 2015

415 **Action Item #2**

416 *Address acquisition, financial management, and other procedures that pose challenges to timely*
417 *project implementation. Work with Departmental and bureau acquisition and finance offices to*
418 *provide funding and project continuity at the beginning of, and across, fiscal years.*

419 **Responsibility:** OWF/Bureau designated representatives

420 **Target:** July 1, 2015

421 **Action Item #3**

422 *Accelerate schedule approving BAR projects consistent with the guidelines established for the*
423 *2015 fire season. In conjunction with the review of the ES and BAR policy and program*
424 *priorities (Action item #1 above), accelerate preliminary approvals that will allow sufficient lead*
425 *time to complete cultural and other clearances (e.g., National Environmental Protection Act*
426 *[NEPA]⁵ and National Preservation Act of 1966 [Section 106]⁶), procurement planning, and*
427 *other advance work that will take place prior to the application of full funding at the beginning of*
428 *the fiscal year. This new schedule will be used for 2015 fires.*

429 **Responsibility:** IBAER/DOI Bureaus

430 **Target:** June 1, 2015

431 **Action Item #4**

432 *Identify non-fire programs and activities that will fund treatments and restoration activities for*
433 *the long term in conjunction with BAR and ES policy and program review to be conducted in*
434 *2015. Funding of ES and BAR projects will be evaluated based on opportunities and*
435 *commitments from non-fire program and activities if the work that is proposed will extend*
436 *beyond the ES and BAR duration. This requirement is necessary for long-term success as noted*
437 *in Action Item #1.*

438 **Responsibility:** All affected bureaus (BIA, BLM, FWS, NPS)

439 **Target:** June 1, 2015

440 **Action Item #5**

441 *Identify requirements for National Fire Plan Operations and Reporting System (NFPORS)*
442 *capabilities. Implementation of new criteria for project evaluation and oversight may require*
443 *updates and changes to NFPORS.*

444 **Responsibility:** IBAER/DOI Bureau Representatives

⁵ The purpose of NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision-making process undertaken by Federal agencies. The act establishes the national environmental policy, including a multidisciplinary approach to considering environmental effects in Federal Government agency decision-making.

⁶ Section 106 requires federal agencies to consider the effects of projects they carry out, approve, or fund on historic properties.

445 **Target:** June 1, 2015

446 *During 2015, 2016, and Beyond*

447 Longer term actions will begin in 2015, with full implementation in subsequent years to improve
448 program effectiveness, efficiency and reduce costs:

- 449 1. Work with tribal and agency plant material specialist to improve efficiencies in rangeland
450 seeding operations for ES and BAR.
- 451 2. Beginning in 2015, conduct an in-depth assessment to determine how to integrate, ES,
452 BAR, and restoration programs and develop processes for long term restoration
453 commitment and maintenance of the local unit for ES and BAR treatments.
- 454 3. Work with the science and research community to investigate and improve the
455 effectiveness of post-wildland fire protection, conservation, and restoration treatments,
456 incorporating traditional ecological knowledge.
- 457 4. Expand efforts to utilize native and non-native seed and vegetation plantings, where
458 appropriate, to accelerate efforts to improve and restore post-fire rangeland health.

7(b) ix. - Seed Strategy

Issue Description/Overview

Develop a comprehensive strategy for acquisition, storage, and distribution of seeds and other plant materials.

Native plant communities are essential to ecosystem integrity and diversity, and they provide ecosystem services that sustain wildlife, such as greater sage-grouse. The spread of invasive species, altered wildfire regimes, habitat fragmentation, and climate change have negatively affected many native plant communities and the species that depend upon them. To slow and ultimately reverse these trends in the greater sage-grouse habitat areas, a reliable supply of genetically appropriate and locally adapted seed is needed, as well as seeding technology and equipment for successful and expanded effective restoration of the sagebrush-steppe ecosystem.

The BLM is working with Federal, non-federal, and state partners to develop the National Seed Strategy and its implementation plan to cover 2015-2020. The National Seed Strategy is aimed at providing land managing agencies the tools they need to facilitate ecological restoration across the United States, including acquisition, storage, and distribution of native seed and other plant materials. Implementation of the National Seed Strategy will enhance coordination across agencies and forge the strong partnerships among agencies, states, tribes, non-governmental organizations, and the private seed and nursery industry that are vital to restoring healthy, functioning ecosystems.

Methodology

The National Seed Strategy is being developed by the interagency Plant Conservation Alliance (PCA), with BLM as the lead and representation from 11 additional Federal agencies (BIA, NPS, U.S. Geological Survey [USGS], FWS, Federal Highway Administration [FHA], Smithsonian Institution, U.S. Botanic Garden, USDA Agricultural Research Service [ARS], USFS, USDA National Institute of Food and Agriculture [NIFA], and USDA Natural Resource Conservation Service [NRCS]), multiple state, and non-governmental organizations. Drafting teams were formed by PCA Federal committee members and the draft was released to Western Governors' Association, Association of Fish and Wildlife Agencies (AFWA) and the Plant Conservation Non-federal Committee. Working groups, under the coordination of the Plant Conservation Alliance Federal and non-federal committees, will be formed to carry out the implementation plan and resolve issues that arise.

Actions Underway

Prior to the 2015 Western Wildfire Season

Action Item #1

Identify a forum to discuss and highlight current native seed and restoration techniques and research with a focus on dry site restoration and environmental change. The Great Basin Consortium Annual Meeting will include a full day for GBNPP cooperator presentations.

496 **Responsible Parties:** BLM, USGS, USFS, FWS, Academia, and Non-Governmental
497 Organizations (NGOs)

498 **Target:** February 2015

499 **Action Item #2**

500 *Identify seed, research, and decision support tool needs and develop communication plan.*

501 Develop the draft National Seed Strategy and Implementation Plan (2015 – 2020) including:

- 502 • Identify seed needs and ensure the supply of genetically appropriate and locally adapted
503 seed;
- 504 • Identify research needs to develop seed and improve technology for production and
505 ecological restoration;
- 506 • Develop decision tools for managers; and
- 507 • Communicate appropriate seed use with agency personnel.

508 **Responsible Parties:** BLM is the lead agency with support from BIA, FHA, USFS, FWS, NPS,
509 ARS, NRCS, NIFA, and USGS

510 **Target:** April 2015

511 **Action Item #3**

512 *Identify a forum to discuss and highlight current native seed and restoration techniques and*
513 *research. Attend the Institute for Applied Ecology's National Native Seed Conference.*

514 **Responsible Party:** BLM and USFS

515 **Target:** April 2015

516 **Action Item #4**

517 *National Seed Strategy and Implementation Plan 2015 – 2020. Increase production, storage*
518 *capacity acquisition, and use of genetically appropriate and locally adapted seed. Solicit*
519 *research proposals to help implement the National Seed Strategy.*

520 **Responsible Parties:** BLM will be the lead agency with support from BIA, FHA, USFS, FWS,
521 NPS, ARS, NRCS, NIFA, and USGS

522 **Target:** April 2015

523 **Action Item #5**

524 *Provide an opportunity to discuss current research, case-studies, and tools that inform applied*
525 *restoration opportunities in the Great Basin. A series of 15 webinars on seeding and restoration*
526 *entitled, "The Right Seed in the Right Place at the Right Time: Tools for Sustainable*
527 *Restoration" are being offered through May 2015.*

Responsible Parties: BLM and USFS Great Basin Native Plant Project (GBNPP), Society for Ecological Restoration, and Fire Science Exchange

Target: May 2015

During 2015, 2016, and Beyond

Longer term actions will begin in 2015, with full implementation in subsequent years, to improve program effectiveness, efficiency and reduce costs:

1. Provide useful information for managers when making decisions about the selection of genetically appropriate plant materials and technologies for vegetation restoration.
2. Develop commercial seed for long-term conservation for future climates. Collect native seed from across the distribution of the species for use in developing commercial seed and for long-term seed banking to ensure conservation of germplasm for future climates.
3. Establish pilot projects that will serve as training/demonstration sites on planting native seed species with monitoring to determine the effectiveness of the restoration techniques.
4. Develop a Business Plan for National Seed Strategy. Identify funding sources and processes necessary to implement the National Seed Strategy.
5. Develop interagency budget initiative for FY 2017. Work across agencies and Departments to initiate an interagency budget initiative for funds to implement the National Seed Strategy.
6. Produce 100,000 sagebrush seedlings annually for greater sage-grouse habitat restoration through the Sagebrush Grow Out program (seedlings are grown for planting into wildfire burned areas or restoration areas to establish native plant communities), in five Great Basin prisons.
7. Coordinate and collaborate across agencies on current and future climate trend data. Understand the trends in climate, across the Western United States with a focus on sagebrush-steppe and pinyon/juniper ecosystems.
8. Increase the availability of native seed for the Great Basin. Increase and grow-out of native plant species for the restoration of the sagebrush-steppe ecosystem within the Great Basin, which will provide necessary structure and habitat, as well as dietary, and other benefits for the greater sage-grouse.

Summary

The time to address the threats to sagebrush-steppe habitat is now—not in 5 or 10 years, when the West is more fragmented, wildfires are more intense, or invasive species have gained more ground. The Order sets in motion options to enhance the protection, conservation, and restoration of a healthy sagebrush-steppe ecosystem in the Great Basin, and addresses important public safety, economic, cultural, and social concerns. This Initial Report, compiled by four interagency task groups to identify immediate actions we can take prior to the 2015 Western wildfire season, is just the first step. In the coming months, nine interagency task groups will work collaboratively with other Federal, tribal, state, and local governmental partners and stakeholders to identify longer-term actions and activities to further meet the intent of the Order and to ensure the allocation of fire management resources and assets before, during, and after wildland fire incidents and investments related to restoration activities, will reflect this priority.

Individual CCA for:
Allotment Name and Number:

Greater Sage-Grouse
Candidate Conservation Agreement
for
Range Management on
Bureau of Land Management Lands in Wyoming

Developed cooperatively by:
U.S. Bureau of Land Management
U.S. Fish and Wildlife Service

July 2014

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EXECUTIVE SUMMARY

Greater sage-grouse (sage-grouse) have declined across their range for a variety of reasons and now occur in 11 states and two Canadian provinces. On March 23, 2010, the U.S. Fish and Wildlife Service (Service) released its finding that the sage-grouse warranted listing under the Endangered Species Act (ESA), but that listing was precluded by other higher priority actions (75 FR 13909). While improperly managed livestock grazing was identified as a threat, the Service noted: “There are data to support both beneficial and detrimental aspects of grazing (Klebenow 1981, Beck and Mitchell 2000), suggesting that the risk of livestock grazing to sage-grouse is dependent on site specific management” (75 FR 13998). Positive impacts of grazing could include the maintenance of large areas of contiguous sagebrush, increased brood use of lightly to moderately grazed areas (as opposed to ungrazed or heavily grazed areas), and the ability of ranchers and rangeland management specialists to detect and treat infestations of non-native and invasive species such as cheatgrass (*Bromus tectorum*), increasing the likelihood that control will be successful. Maintenance of perennial bunchgrasses with light to moderate levels of livestock use would benefit sage-grouse. Grazing could negatively affect sage-grouse by reducing residual perennial grass cover at nesting sites, resulting in diminished concealment of hens at their nests.

The purpose of this Candidate Conservation Agreement (CCA) is to support implementation of consistent conservation measures across public and private lands operations to further reduce or eliminate potential threats to sage-grouse from rangeland management practices and to maintain and support livestock grazing practices that are beneficial or neutral to sage-grouse on enrolled allotments administered by the Bureau of Land Management (BLM) in Wyoming. This CCA is an important component of a strategic, landscape-level approach to address the conservation needs of sage-grouse.

The CCA is a voluntary agreement between the Fish and Wildlife Service (Service), the BLM, and includes the voluntary participation of the authorized Permittee/Lessee. It provides a framework for the authorized Permittee/Lessee to voluntarily implement conservation measures for sage-grouse beyond those measures required as a condition of their grazing permit.

Allotment-level CCAs are agreements **to implement, monitor, and report on the effectiveness** of the voluntary conservation measures as to their benefit for sage-grouse and their habitat on respective allotments. Allotment-level CCAs are intended to facilitate consistent implementation of conservation measures across public and private lands where a participating permittee also has enrolled their private lands in the *Greater Sage-Grouse Umbrella CCAA for Wyoming Ranch Management*.

The conservation measures voluntarily undertaken by the authorized Permittee/Lessee in their allotment-level CCAs are in addition to those measures required in existing BLM Resource Management Plans (Plans) or authorized grazing permits/leases. The BLM is amending its Resource Management Plans to incorporate explicit objectives, management actions, or land-use restrictions to conserve sage-grouse and their sagebrush habitats. This will provide greater certainty that adequate regulatory mechanisms are in place for consideration in the ESA listing decision by the Service. The Wyoming BLM has issued interim sage-grouse habitat management guidance to its field offices during the Resource Management Plan Amendment process (BLM

IM 2012-019). When the amendment process is completed, additional habitat management actions may affect terms and conditions of the grazing permit. The CCA will continue to be the vehicle to identify and incorporate any voluntary conservation actions beyond those required by regulation and the amended RMP(s). This agreement may be revised as a result of adaptive management, provided all parties agree to the changes, to continue providing enhanced conservation benefits for sage-grouse.

In the case of federal lands, neither the BLM nor the Service can provide a participating authorized Permittee/Lessee with absolute assurance that additional requirements resulting from the RMP amendments or result of a decision to federally list the sage-grouse would not apply. However, this CCA provides the best mechanism to ensure the continuation of the grazing Permittee/Lessee's existing operations on federal lands in the event that the Greater sage-grouse is listed as threatened or endangered under the ESA. The selected conservation measures are specifically designed to address threats to the sage-grouse previously identified by the Service (75 FR 13909) that may already be present, or may be avoided in the future. These conservation measures represent the synthesis of the best available science for sage-grouse management in Wyoming and are consistent with Western Association of Fish and Wildlife Agencies guidelines (Connelly et al. 2000) as well as current BLM direction for management of sage-grouse habitats on BLM-administered lands:

- BLM National Sage-Grouse Habitat Conservation Strategy (2004)
- Guidance for Addressing Sagebrush Habitat Conservation in BLM Land Use Plans (2004)
- Guidance for Management of Sagebrush Plant Communities for Sage-Grouse Conservation (2004)
- Western Association of Fish and Wildlife Agencies Greater Sage-Grouse Comprehensive Conservation Strategy (2006)
- Sagebrush Memorandum of Understanding among Federal Agencies and the Western Association of Fish and Wildlife Agencies (2008)
- Sage-Grouse Management Considerations for Energy Development (Instruction Memorandum No. 2010-071)
- Interagency Greater Sage-Grouse Memorandum of Understanding (2011)
- Greater Sage-Grouse Interim Management Policies and Procedures (Instruction Memorandum No. 2012-043)
- BLM National Greater Sage-Grouse Land Use Planning Strategy (Instruction Memorandum No. 2012-044)
- National Technical Team Report
<http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/wildlife.Par.73607.File.dat/GrSG%20Tech%20Team%20Report.pdf>
- Conservation Objectives Team Report (<http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf>)

This CCA includes:

- Description of the responsibilities of the Cooperators and Participants
- Area to be covered under the CCA
- Habitat requirements, status, and general threats to sage-grouse

- Conservation measures designed to remove or reduce identified threats
- Expected benefits of the conservation measures

I. BACKGROUND

INTRODUCTION

Listing a species as threatened or endangered under the ESA triggers regulatory and conservation responsibilities for federal land managers. These responsibilities stem in part from section 9 of the ESA, which prohibits “take” (i.e., harass, harm, pursue, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct) of federally listed species. Federal agencies must also ensure that federal actions will not jeopardize the continued existence of listed species and are also required to implement programs for the conservation of listed species under section 7(a)(1) of the ESA.

Many candidate species occur on both federal and non-federal lands. Non-federal property owners can enter into a separate Candidate Conservation Agreement with Assurances (CCAA) in order to implement voluntary conservation measures aimed at reducing and/or eliminating threats to candidates or other species to ensure that their land operations can continue unaffected if the species is federally listed in the future. However, property owners whose operations rely on using a combination of land ownership types (i.e., federal and non-federal) are concerned because assurances provided to them under a CCAA do not apply to federal lands. Private property owners and authorized federal Permittees/Lesseees are seeking greater certainty that, if they implement conservation measures to enhance the habitat of the sage-grouse, they could continue their operations without interruption or the risk of additional regulatory burden should the sage-grouse be listed under the ESA.

The goals of this CCA are to:

- Support and encourage voluntary livestock grazing management practices that are beneficial to sage-grouse and are above and beyond those required by the RMP on enrolled allotments;
- Provide increased certainty regarding continuity of livestock grazing operations on BLM-administered lands in the event of a listing; and
- Streamline the process of landowner enrollment in a companion CCAA and facilitate a complementary strategy for livestock management to benefit sage-grouse habitats.

The Service and the BLM anticipate that permittees seeking to enroll individual allotments in allotment-level CCAs will already have considered enrollment of their private lands through participation in the ***Greater Sage-Grouse Umbrella CCAA for Wyoming Ranch Management***. These two conservation agreements are intended to achieve consistent conservation benefit across landownerships while addressing the interests of both federal and private land managers.

In the Service’s threats analysis in their 2010 “warranted but precluded” finding for sage-grouse, habitat fragmentation and lack of adequate existing regulatory mechanisms were identified as the primary factors negatively impacting sage-grouse across their range (75 FR 13909). Efforts to

address the adequacy of regulatory mechanisms include those undertaken by the State of Wyoming as the resource trustee (e.g., the Governor's Greater sage-grouse Core Area Protection, Executive Order 2011-5); and the BLM and USDA Forest Service, per plan revisions and/or amendments.

State of Wyoming

The State of Wyoming has developed a Core Area strategy for sage-grouse by delineating important Core Area habitats. The State designated these Core Areas to protect the most important sage-grouse habitats, including their lek sites. Wyoming Governor Matthew Mead issued Greater sage-grouse Core Area Protection, Executive Order 2011-5, which outlines development restrictions within those core areas. Specifically, the Order directs that "[State] agencies should, to the greatest extent possible, focus on the maintenance and enhancement of those Greater Sage-Grouse habitats and populations within the Core Population Areas identified by the Sage Grouse Implementation Team." The order addresses new development within "Core Population Areas," which "should be authorized or conducted only when it can be demonstrated by the State agency that the activity will not cause declines in Greater Sage-Grouse populations." Other recommendations include working with the Service to develop CCAAs and CCAs to address threats, implementing proactive activities to combat wildland fire, and creating incentives to enhance reclamation sites within Core Areas.

The BLM

The Service identified the principal regulatory mechanisms for the BLM as conservation measures in Resource Management Plan(s) (RMP). The RMPs establish goals and objectives for resource management and the measures needed to achieve those goals and objectives. The RMPs are the basis for the on-the-ground actions the BLM commonly undertakes. Where changing conditions require updates to the information or analysis contained in the RMP, the BLM may amend the RMP to address the changing conditions. The BLM is currently amending its RMPs to incorporate conservation measures, management actions, and land use restrictions. The BLM's objective is to conserve sage-grouse habitats that support Core Area Populations and to potentially preclude the need to list the species under ESA. During the RMP Amendment process, the BLM is implementing interim sage-grouse habitat management guidance (BLM 2004, BLM 2011, BLM WY IM 2012-019).

Regardless of whether a permittee participates in a CCA, the management actions selected in the sage-grouse RMP Amendments or revisions will be applied to all activities requiring federal authorization within the planning area. This includes livestock grazing practices on BLM-administered lands. The CCA provides a level of improved certainty for BLM and our authorized Permittees/Lesseees by providing a mechanism to provide greater certainty of continuity of grazing operations on BLM-administered lands. That increased certainty is based on the early implementation of voluntary conservation measures that go beyond current requirements. The Service is unlikely to impose new measures or restrictions as a result of section 7 Consultation where those agreed upon measures are implemented as a part of this CCA. The conservation measures identified in the CCA are specifically designed to ameliorate threats to the species that the Service has previously identified. Moreover, the conservation measures are consistent with Western Association of Fish and Wildlife Agencies guidelines (Connelly et

al. 2000) and current BLM direction for management of sage-grouse habitat on BLM-administered lands.

Relationship of the CCA to Section 7 of the ESA

The BLM will request that the Service provide a technical review of the proposed CCA following the procedures for “conferencing” (50 CFR §402.10). While conference procedures are not required for a candidate species, the procedures may be used to assist a federal agency in planning a proposed action to be as consistent as possible with the conservation needs of a species that has not yet been listed under the ESA. Furthermore, BLM Policy 6840 for Special Status Species Management encourages the BLM to seek technical assistance from the Service when it is determined to be advantageous to a species' conservation or BLM management options.

A decision to list the sage-grouse must be based on the five factor threats analysis required under the ESA. The Service will consider the overall effects of the CCAA and allotment-level CCAs in its listing decision. One goal of this CCA is to ensure adequate conservation measures, sufficient adaptive management, and monitoring obligations to allow the conference opinion to be quickly adopted as a biological opinion following the effective date of any decision to list the sage-grouse, if it remains warranted. If sage-grouse do become listed, the Service will review the conference report or opinion in coordination with the BLM to determine if there have been any significant changes to the CCA or the information used during the conference (e.g., a substantial adverse change to the status of sage-grouse as might result from a new pathogen that affects sagebrush, or the spread of West Nile Virus). If there have been no significant changes in the action or the availability of substantial new information (e.g., a new invasive species that would impair sage-grouse habitats), the Service would confirm the conference opinion as a biological opinion and include an incidental take statement. This streamlining of the section 7 consultation process, where in-place conservation measures support the confirmation of a conference opinion as a biological opinion, is a means by which the BLM and the Service may help provide continuity of existing livestock operations for the users of public lands.

Relationship of the CCA to the BLM RMP Planning and Grazing Permit Renewal Processes

The BLM is amending or revising its RMPs in order to incorporate explicit objectives and desired habitat conditions for sage-grouse. While the CCA must be in compliance with RMP amendments, these RMP amendments are independent of the CCA. Regardless of whether a Permittee/Lessee enrolls in the CCA program, the guidance in the final RMP amendment(s) or revision(s) will apply to all activities requiring federal authorization within the RMP planning area including livestock grazing practices on BLM-administered lands. Where livestock grazing is consistent with, or in compliance with, guidance or regulation (RMPs, AMPs, grazing permits or leases, BLM Land Health Standards and Guidelines, etc.), and these instruments adequately address the needs of sage-grouse, then no changes to grazing management are anticipated (BLM 2000, 2011).

PURPOSE OF THE CCA

The primary purpose of the CCA is to promote grazing practices that reduce or eliminate potential threats to sage-grouse and their habitats on enrolled allotments and to ensure that existing neutral or beneficial grazing practices are likely to continue uninterrupted if the species is listed in the future. The allotment-level CCA cannot be used as an instrument to bring an allotment into compliance with BLM regulations and policies (e.g., BLM Land Health Standards). Furthermore, a permittee or lessee's participation in a CCA does not by itself change or otherwise modify their existing grazing permit or Allotment Management Plan. The CCA provides a framework for authorized Permittees/Lesseees to voluntarily implement, or continue to implement, grazing practices and associated conservation measures that benefit sage-grouse on their BLM-administered allotments. The conservation measures of the CCA are intended to describe the voluntary measures that go beyond those already required by permit, lease, or regulation. More specifically, the CCA will accomplish the following:

- Develop, coordinate, and facilitate conservation measures and actions to reduce and/or eliminate known threats to sage-grouse;
- Support implementation of the Wyoming Governor's Executive Order (2011-5 as updated), mandating conservation of sagebrush habitats within the State of Wyoming.
- Serve as an important component of a larger, landscape-level approach to address the conservation needs of sage-grouse in Wyoming by providing more seamless management across private and public lands;
- Identify conservation measures for rangeland management activities in Wyoming that are beneficial for sage-grouse, based on best available science;
- Support the continuation of livestock operations on public lands while protecting and improving habitat conditions for sage-grouse; and
- Recognize the interrelated nature of public and private land and the contribution to sage-grouse conservation made by working ranches.

AUTHORITY

Sections 2 and 7 of the ESA allow the Service to enter into a CCA with other cooperating partners. Section 2 of the ESA states that encouraging interested parties, through federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the Nation's heritage in fish, wildlife, and plants. Section 7(a)(1) of the ESA requires the Service to review programs that it administers and to utilize such programs in furtherance of the purposes of the ESA. By entering into this CCA, the Service is utilizing its Candidate Conservation Programs to further the conservation of the Nation's fish and wildlife.

The Federal Land Policy and Management Act (FLPMA; Section 307, 43 USC 1737), which provides the overall direction to the BLM for conservation and management of public lands, allows the BLM to participate in cooperative agreements. Subject to the provisions of applicable law, the Secretary of the Interior may enter into contracts and cooperative agreements involving the management, protection, development, and sale of public lands. The BLM manual 6840 - Special Status Species Management, provides overall policy direction to BLM managers for

establishing procedures to manage species designated as BLM Sensitive. The 6840 Policy Manual states that it is in the best interest of the BLM to undertake conservation actions for BLM Sensitive species before listing is warranted and that it is also in the best interest of the agency to undertake conservation actions that improve the status of such species so that their designation as BLM sensitive is no longer necessary or warranted. The Wyoming BLM State Director has identified the Greater sage-grouse as a sensitive species in the State since September of 2002.

ALLOTMENT-LEVEL CCA

This CCA serves as documentation of specified voluntary conservation measures agreed to by a Permittee/Lessee and implemented to address, resolve, or continue to avoid, the possible identified threats to sage-grouse. It should be recognized that as a result of BLM plan amendments or revisions, non-discretionary terms and conditions may be required of authorized grazing Permittees/Lessees on BLM-administered lands through BLM grazing permit renewals, but these are separate from the CCA agreement process and are not a consequence or result of this CCA process. The Service, the BLM, and the participating authorized Permittee/Lessee have cooperatively developed this CCA including voluntary selection of conservation measures which are taken directly from the Umbrella CCAA (Table 1 – see attached). Through mutual agreement, the participating authorized Permittee/Lessee may elect to include additional measures in their allotment CCA in the future that further support or enhance healthy sage-grouse habitats. When the BLM signs the allotment-level CCA in coordination with the participating authorized Permittee/Lessee, the authorized Permittee/Lessee agrees to the following on the BLM lands within the enrolled allotment:

- To implement and monitor (compliance) voluntary conservation measures that are to be implemented by the authorized permittee/lessee and identified within the allotment-level CCA;
- To avoid negatively affecting sage-grouse on enrolled allotments;
- To cooperate and assist with monitoring (rangeland) activities pertaining to the conservation measures voluntarily agreed to as part of development of the allotment-level CCA; and
- To provide assistance to BLM in developing the annual implementation report to the Service by providing self-reported rangeland and sage-grouse use monitoring and compliance monitoring for all implemented voluntary conservation measures.

Prioritization of Allotments

In the event that more applications for enrollment are received than the BLM and the Service can process simultaneously, the following considerations will be used to help prioritize the applications:

- Permittee has developed, or has pending application, for a CCAA for private lands associated with their federal allotment.
- Allotment occurs within occupied sage-grouse Core Area habitat.
- Allotment has a significant component of sage-grouse Core Area habitat.
- Allotment provides connectivity among core area habitats or other occupied habitat.

- Allotment has an approved Allotment Management Plan (AMP).
- Allotment meets or exceeds all land health standards (this may include allotments that are making progress toward meeting land health standards where grazing was not a factor in failing to achieve standards).

The conservation measures for the CCA, communicated within the *Greater Sage-Grouse Umbrella CCAA for Wyoming Ranch Management*, are intended to require no additional National Environmental Policy Act (NEPA) analysis to implement. The Service's Wyoming Ecological Services Field Office will assist the BLM to prioritize allotments for enrollment, but the BLM has full discretion to prioritize any Allotment-level CCA application it receives and to determine if it is in the best interest of the BLM to proceed with developing an allotment-level CCA.

DESCRIPTION OF COVERED LANDS

The Statewide umbrella CCAA potentially encompasses approximately 7,011,569 ha (17,312,515 ac) of privately owned lands within the current range of the sage-grouse in Wyoming. Acreage estimates were derived from Wyoming Geographic Information Science Center (WYGISC) land cover analyses, which are based on satellite images and digital elevation models (these estimates could change as new landscape information becomes available). Connelly et al. (2004) estimated the total area of sagebrush habitat in Wyoming was nearly 10 million ha (24 million ac), of which approximately 38 percent is privately-owned, 7 percent state-owned, 47 percent BLM-administered, 4 percent USDA Forest Service-administered, and 4 percent BIA-administered, with other federal agencies owning lesser amounts. Wyoming BLM-administered lands encompass approximately 10,209,692 acres of sage-grouse habitat, including 4,547,043 acres of Core Area habitat and approximately 5,662,649 acres of general habitat.

SPECIES BIOLOGY

Sage-grouse in western North America were once abundant and widespread but have declined throughout their range. Sage-grouse populations are closely associated with sagebrush (*Artemisia* spp.) habitats. Sage-grouse are known for their elaborate mating ritual where males congregate and perform a courtship dance on a specific strutting ground called a lek. Lek sites are typically open areas within sagebrush stands that have good visibility for predator detection and acoustical qualities so the sounds of display activity can be heard by other sage-grouse. Male sage-grouse display on leks in early morning and late evening to attract females. The timing of lek attendance varies considerably depending on snow depth, elevation, weather, and geographic region, with first attendance ranging from the end of February to early April and ending in late May or early June (Hagen 2011). Females exhibit strong fidelity to breeding areas (Fischer et al. 1993); habitats used by females prior to nesting are also part of the general breeding habitat. Breeding activities occur from March to early June; however, the lek is considered to be the center of year-round activity for resident grouse populations (Eng and Schladweiler 1972, Wallestad and Pyrah 1974, Wallestad and Schladweiler 1974). Dominant males will breed with more than one female. Females leave the lek and begin their nesting effort after mating; males provide no paternal care or resources.

Optimum sage-grouse nesting habitat consists of a healthy sagebrush ecosystem complete with sagebrush plants (primarily *A. tridentata* ssp. *tridentata*, *A. t.* ssp. *vaseyana*, *A. t.* ssp. *wyomingensis*, *A. arbuscula* in Oregon) and a strong native herbaceous understory composed of grasses and forbs (Hagen et al. 2007). Nests are typically shallow bowls lined with leaves, feathers, and small twigs placed on the ground at the base of live sagebrush; however, nests have been found under other plant species (Connelly et al. 1991, Gregg 1991). Sage-grouse females that nest under sagebrush tend to have higher nest success rates (53 percent) than those females nesting under other species (22 percent; Connelly et al. 1991). In addition, female sage-grouse tend to select nest sites under sagebrush plants that have large canopies (Hagen et al. 2007). On average, 80 percent of nests are within 6.2 km (4 mi) of the lek, but some females have been shown to nest 20 km (12 mi) from a lek (Hagen 2011). Sagebrush canopies provide overhead cover and are often associated with an herbaceous understory that provides lateral cover for the birds and allows them to hide from predators (Patterson 1952, Klebenow 1969, Wallestad and Pyrah 1974, Gregg 1991, Gregg et al. 1994, Holloran et al. 2005). Female sage-grouse nesting in cover conditions that provide both overhead and lateral cover have higher nest success rates than those nesting under lesser cover conditions (Wallestad and Pyrah 1974, Delong et al. 1995, Holloran et al. 2005).

Despite the extensive amount of research on habitat use by sage-grouse and the design of management guidelines (Connelly et al. 2000), there is still controversy regarding some of the basic information on habitat use (Schultz 2004, Hagen et al. 2007). One reason for this controversy appears to be misinterpretation of the data used to design the original management guidelines (Connelly et al. 2000), as well as a lack of understanding of the role that variance and scale play in observations of grouse at specific use sites (Stiver et al. 2006). These issues point to the need for additional research and monitoring that can inform habitat assessments and land management decisions potentially affecting sage-grouse and land use practices. The BLM generally uses the *Sage-Grouse Habitat Assessment Framework: Multi-scale Habitat Assessment Tool* (Stiver et al. 2010) to assess and monitor sage-grouse habitats throughout the species range on BLM-administered lands (BLM IM 2012-043). The habitat indicators and associated values in Stiver et al. (2010) are based on the best available science.

THREATS TO SAGE-GROUSE

Detailed descriptions of range-wide threats are available in the 12-month warranted but precluded Greater sage-grouse finding (75 FR 13909).

RESPONSIBILITIES OF THE COOPERATORS

The BLM will:

- Lead the assisted preparation of any allotment-level CCA(s).
- Ensure actions proposed in an allotment-level CCA(s) are consistent with RMP and appropriate authorizations.
- Provide technical assistance to authorized Permittees/Lesseees to implement the voluntary conservation measures.
- Collect and interpret monitoring data, as agreed to in the allotment-level CCA and associated monitoring plan.

- Work with participating authorized Permittees/Lessees and partner agencies (e.g., agriculture extension agents) to facilitate rangeland monitoring required for maintaining the allotment-level CCA.
- Prepare annual reports for the CCA while maintaining discussions with the participating authorized Permittees/Lessees. Work with the authorized Permittees/Lessees, where compliance monitoring results will be presented in the annual report.
- Compile a report, including compliance monitoring information received from the authorized permittee/lessee in development of an annual CCA report.
- Conduct outreach and public education to promote the conservation of sage-grouse through implementation of the CCA.

The U.S. Fish and Wildlife Service will:

- Assist with preparation of allotment-level CCAs.
- Assist BLM and Permittee/Lessee to ensure adequate baseline habitat assessment.
- Advise the BLM on whether conservation measures and the allotment-level CCA adequately address the identified threats.
- Provide technical assistance to aid participating authorized Permittees/Lessees in implementing the conservation measures.
- Review monitoring data for consistency with CCA objectives to determine if conservation measures are providing the desired benefit to sage-grouse.
- Assist participating authorized Permittees/Lessees with preparing voluntary compliance monitoring information for inclusion in annual reports as needed.
- Assist the BLM with preparing its annual report as needed.
- Conduct outreach and public education to promote the conservation of sage-grouse through implementation of the Umbrella CCAA and allotment-level CCAs.

The Permittee/Lessee will:

- Assist with initial assessment and preparation of allotment-level CCA.
- Work with participating agencies to facilitate any rangeland (biological) monitoring as required to maintain the allotment-level CCA.
- Work with BLM and FWS to collect or provide information for preparation of annual reports (e.g., observation information and compliance monitoring for measures agreed to in the CCA).
- Work with BLM to compile compliance and monitoring information received through the allotment-level CCA(s) for the annual report

The BLM, Service, and participating authorized Permittees/Lessees agree to seek technical expertise from the Wyoming Game and Fish Department (WGFD) in the development and implementation of allotment-level CCAs, as needed and appropriate.

II. ELEMENTS OF THE CONSERVATION AGREEMENT

CONSERVATION MEASURES

This section describes conservation measures designed to reduce threats to sage-grouse on BLM-administered grazing allotments in Wyoming. Conservation measures described in Table 1

(taken from the statewide umbrella CCAA) are derived from existing conservation recommendations for managing sage-grouse populations, and their habitats issued by the BLM (2004, 2011), Western Association of Fish and Wildlife Agencies (Connelly et al. 2000), and an interagency team of managers, fire ecologists, range conservations, and wildlife biologists from the BLM, Service, and Forest Service (BLM et al. 2000). These guidance documents encourage the application of the best available scientific information while incorporating the professional judgment of local BLM personnel, state wildlife agency biologists and local sage-grouse working groups. It is anticipated that local information and expertise concerning the condition and distribution of sage-grouse and their habitats will be necessary to select the most appropriate conservation measures for specific allotments. The conservation measures for a particular allotment will be tailored to the specific allotment.

The process for selecting specific voluntary conservation measures in an Allotment-level CCA will be based on the specific threats that are identified for the covered allotment and voluntarily agreed to by the participating authorized Permittee/Lessee. Each threat identified in Table 1 has one or more corresponding conservation measures that may be chosen. The Service and BLM recognize that each allotment is unique and the appropriate conservation measures used will be site-dependent. The Service and BLM will work with each participating authorized Permittee/Lessee to identify the specific threats to sage-grouse on their allotments and select conservation measures that remove or reduce the threats. Some conservation measures may be implemented independently by participating authorized Permittee/Lessee, while others may require substantive coordination with the agencies. *There is no minimum number of conservation measures that must be implemented to qualify for a CCA, and not all threats have to be fully addressed. However, the allotment must have appropriate conservation measures that address threats in such a way that an overall conservation benefit to sage-grouse is achieved.* If the BLM and the Service cannot reach this conclusion for any specific allotment-level CCA, then the agencies will not execute the allotment-level CCA in question.

While the conservation measures should be readily applicable across the landscape, there may be circumstances where site-specific conditions warrant change or modification to the standard conservation measures (appendix C). The BLM and the Service will work with participating authorized Permittees/Lessees to modify conservation measures where necessary and as appropriate. The Service will note these modifications on the allotment-level CCA, including the rationale or justification for any modification(s).

MONITORING

This section outlines the minimum monitoring requirements for an allotment-level CCA. Monitoring will include both compliance and biological monitoring. Individual allotment-level CCAs will describe the specific monitoring strategy for the allotments, including identifying conditions and general livestock grazing operations which have the potential to influence (either positively or negatively) greater sage-grouse or their habitats. General operational information includes, type of livestock grazing, forage management strategies used on the allotment(s), major vegetation communities across the enrolled allotments, and general information concerning sage-grouse and their habitat on the enrolled allotment(s). Monitoring will typically be completed by the BLM and/or authorized Permittees/Lessees with and, if available, staff from other partner

agencies, such as the WGFD, where applicable and/or agreed upon, or interagency local sage-grouse working groups, as agreed upon. Monitoring may also be completed by mutually agreed upon third parties (e.g., contracted organization or individual). The BLM will coordinate any necessary site visits with the participating authorized Permittee/Lessee, the Service, and where appropriate and available, WGFD or other entities, to determine compliance with the allotment-level CCA or to conduct rangeland (or *biological*) monitoring.

BLM will follow and implement current monitoring strategies within existing and enrolled allotments. A portion of monitoring results that are used to assess land health for any given allotment will be used to complete the annual reporting requirements for the CCA. Monitoring for the CCA itself can be thought of as consisting of three essential components: (1) Initial Site Assessment, (2) Compliance Monitoring, and (3) Biological Monitoring. A land health assessment and the subsequent evaluation of achievement of land health standards, which are identified in the agency RMP, could provide the information for the baseline or initial site assessment of sage-grouse habitat condition. On allotments where land health assessments have not been conducted, an initial assessment of the enrolled property will be conducted by the BLM based on information provided by the permittee/lessee, and/or through information gathered during an on-site visit to determine which of two conditions applies: (1) Property contains suitable habitat currently being maintained, or (2) Property contains potentially suitable habitat not currently being maintained, but for which there exists substantial opportunity to restore, improve, and enhance through the implementation of CMs included in this CCA or which conditions apply to specific portions of the enrolled lands. Compliance monitoring consists of verification of conservation measures agreed upon at the time the CCA was implemented. Biological monitoring consists of documenting pasture use information, major plant community types, management actions, and sage-grouse use of in the area.

Initial Sage-Grouse Habitat Assessment

When an allotment is enrolled, existing information, provided by agency specialist, or through an onsite assessment as necessary, will establish baseline habitat conditions. Agency specialists will determine suitable sage-grouse habitats that are currently being maintained as well as any areas of the allotment where opportunities to restore, improve or enhance habitats may exist.

Compliance Monitoring

In signing the allotment-level CCA, the BLM and the participating Permittee/Lessee commit to annual reporting on the implementation of the selected voluntary conservation measures. To simplify the reporting process, a list of compliance monitoring derived from the *comprehensive list will be reviewed by BLM and the applicant to determine appropriate measures and commitments based on voluntary implementation. (Not all measures in Appendix C of this CCA are applicable to federal lands)*. While the participating Permittee/Lessee is the primary party responsible for completing the compliance monitoring form, the BLM will provide assistance as/when requested or appropriate. Additionally, the BLM will organize an annual field review of enrolled allotments to evaluate the CCA's progress toward maintaining and enhancing sage-grouse habitats in order to provide an opportunity for adaptive management to correct problems

and learn from successes. The number of site visits completed will depend on the number of allotments enrolled and the resources and staff available to conduct reviews.

Rangeland (Biological) Monitoring

Rangeland monitoring will include the following: (1) an assessment of sage-grouse habitat condition when an allotment is enrolled (this will include existing information as available), (2) annual self-reporting by participating authorized Permittees/Lesseees and reviewed by the agency for compliance; and (3) where identified in the CCA, sage-grouse population trend assessment based largely on lek monitoring with the ability to include other types of population monitoring data (e.g., scat surveys in winter habitat, winter aerial surveys, etc.).

- (1) Annual Observational Rangeland Monitoring: Annual observational monitoring, primarily conducted by participating authorized Permittee/Lessee and BLM will consist of three components: 1) Monitoring of rangeland and reporting for noxious weeds and non-native or invasive species (e.g., cheatgrass) identified in the course of operations; 2) A record of any sage-grouse (number, male or female, etc.) observed on the allotment; and 3) A record of recorded sage-grouse mortalities on the enrolled allotment (s). This information may be essential to determining the efficacy of conservation measures, or where conservation efforts should be prioritized within the allotment.
- (2) Periodic Quantitative Assessment: Sage-grouse habitat conditions will be assessed according to scheduled monitoring intervals since sagebrush and its associated vegetation take years to respond to changes in management. We expect that desired changes in plant community response, where achievable using the selected conservation measures, will be captured within the typical monitoring timeframes established for monitoring range health standards. This schedule may be shifted if there is a wildfire in the allotment (an assessment should be made after the fire) or if there is an unusually dry or wet season (an assessment may wait until the next year). The monitoring locations and methods can be the same as those used to assess habitat suitability at the time of enrollment. Alternatively, the authorized Permittee/Lessee, through mutual agreement of the agencies and as identified in their allotment-level CCA, can modify the methods or adopt entirely new methods to monitor habitat indicators for sage-grouse. The specific protocol, location of periodic monitoring, or need for new or additional transects will be described in the allotment-level CCA and will be based on established monitoring requirements and schedules already employed by the BLM for the allotments under consideration. The assessment will be conducted by the BLM and/or Service, or mutually agreed upon third party, in cooperation with the participating authorized Permittee/Lessee.
- (3) Population Trend Assessment: Sage-grouse Population Monitoring
 - (a) Lek counts will be the primary basis for monitoring populations. Lek monitoring will follow current monitoring protocols established by the WGFD (Christiansen, 2012) who typically coordinates the monitoring. While population monitoring will not necessarily be required in the allotment-level

- CCA, cooperators that have been trained in lek data collection protocols are encouraged to collect data annually.
- (b) If used for population trend assessment, scat surveys may be used to monitor the status of wintering sage-grouse.

REPORTING REQUIREMENTS

The BLM will provide an annual report to the Service that summarizes monitoring compliance and effectiveness recorded for the enrolled allotments. Participating permittees will report their compliance monitoring information to BLM by December 31 each year. The BLM will submit a copy of all reports and associated documentation to the Service by February 1 of each year.

Annual reports will include information such as:

- Any new allotments enrolled during the reporting period, including copies of the allotment-level CCA.
- Summary of the monitoring program; results and findings for the current year, including the degree of compliance with the CCA; effectiveness of habitat management activities at meeting the intended conservation benefits; and any population and vegetation information gathered over the past year.
- Any mortality or injury of sage-grouse observed over the previous year.

Monitoring reports or forms shall be delivered to:

State Director
Bureau of Land Management
WY State Office
P.O. Box 1828
Cheyenne, WY 82003-1828
Phone number: 307-775-6256

Any reports of sage-grouse injury or mortality, and the BLM's annual report, required by this Agreement shall be delivered to:

Field Supervisor
U.S. Fish and Wildlife Service
Wyoming Ecological Services Field Office
5353 Yellowstone Road, Suite 308A
Cheyenne, WY 82009

ADAPTIVE MANAGEMENT

The Service and BLM recognize that implementation of the conservation measures must be consistent with the concepts and principles of adaptive management. The effectiveness of the voluntary conservation measures, monitoring methods/results, and new technologies will be reviewed by the Service and BLM with the authorized Permittee/Lessee on an as-needed basis. Upon evaluation, appropriate modifications to the conservation measures or removal of measures

taken from Table 1 of this CCA may be necessary to enhance the goals of the effort or the results from the effectiveness monitoring as appropriate. There are provisions in the CCA and allotment-level CCA documentation to revise or amend these agreements, if necessary.

DURATION OF CCA

This umbrella CCA will remain in effect for 40 years, following its approval and signing by the Service and the BLM. Individual CCAs will be in effect for 20 years, with an option of renewal for an additional 20 years, or, until the BLM, the participating authorized Permittee/Lessee, or the Service (the signatories) terminates it. Any signatory may withdraw from this agreement at any time by providing 30 days written notice to all other signatories. Any signatory may propose changes to the CCA. Such changes will be in the form of an amendment and may be considered at any time after a 30-day notice to the signatories. No amendment shall be valid unless executed by all signatories to the agreement. The signatories will meet at agreed upon intervals to review the effectiveness of the CCA. Where any deficiencies are identified, signatories will meet to make adjustments as early as practicable.

LITERATURE CITED

- Beck, J. L., and D.L. Mitchell. 2000. Influences of livestock grazing on sage grouse habitat. *Wildlife Society Bulletin* 28:993-1002.
- Bureau of Land Management. 2011. Federal Register Volume 76, Number 237 (Friday, December 9, 2011). Notices. Pages 77008-77011. FR Doc No: 2011-31652.
- Christiansen, T. 2009. Fence marking to reduce Greater Sage-Grouse (*Centrocercus urophasianus*) collisions and mortality near Farson, Wyoming – Summary of interim results. Unpublished report. Wyoming Game and Fish Department, WY.
- Christiansen, T. 2012. Chapter 12: Sage Grouse (*Centrocercus urophasianus*). Pages 12-1 to 12-55 in S.A. Tessmann (ed). Handbook of Biological Techniques: third edition. Wyoming Game and Fish Department. Cheyenne, WY. <http://wgfd.wyo.gov/web2011/wildlife-1000055.aspx>
- Connelly, J.W., W.L. Wakkinen, A.D. Apa, and K.P. Reese. 1991. Sage-grouse use of nest sites in southeastern Idaho. *Journal of Wildlife Management* 55(3): 521-524.
- Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28(4): 967-985.
- Dahlgren, D.K., R. Chi, and T.A. Messmer. 2006. Greater sage-grouse responses to sagebrush management in Utah. *Wildlife Society Bulletin* 34(4): 975-985.
- DeLong, A.K., J.A. Crawford, and D.C. DeLong Jr. 1995. Relationships between vegetational structures and predation of artificial sage grouse nests. *Journal of Wildlife Management* 59(1): 88-92.
- Eng, R.L. and P. Schladweiler. 1972. Sage grouse winter movements and habitat use in central Montana. *Journal of Wildlife Management* 36(1): 141-146.
- Fischer, R.A., W.L. Wakkinen, and J.W. Connelly. 1993. Nesting-area fidelity of sage grouse in southeastern Idaho. *The Condor* 95: 1038-1041.
- Hagen, C.A., J.W. Connelly, and M.A. Schroeder. 2007. A meta-analysis of greater sage-grouse *Centrocercus urophasianus* nesting and brood-rearing habitats. *Wildlife Biology* 13(1): 42-50.
- Hagen, C.A., M.J. Willis, E.M. Glenn, and R.G. Anthony. 2011. Habitat selection by greater sage-grouse during winter in Southeastern Oregon. *Western North American Naturalist* 71(4): 529-538.
- Holloran, M.J., B.J. Heath, A.G. Lyon, S.J. Slater, J.L. Kuipers, and S.H. Anderson. 2005. Greater sage-grouse nesting habitat selection and success in Wyoming. *Journal of Wildlife Management* 69(2): 638-649.
- Klebenow, D.A. 1969. Sage grouse versus sagebrush control in Idaho. *Journal of Range Management* 33: 605-609.
- Klebenow, D.A. 1981. Livestock grazing interactions with sage grouse. *Proceedings of the Wildlife-Livestock Relationship Symposium*. 113-123 pp.
- Patterson, R.L. 1952. Sage grouse populations and land-utilization patterns in the mountain west. *Transactions of the North American Wildlife Conference* 15:384-398.
- Schultz, B. 2004. Analysis of studies used to develop herbaceous height and cover guidelines for sage grouse nesting habitat. Cooperative Extension Special Publication SP-04-11, University of Nevada, Reno.

- State of Wyoming. 2011. Executive Order 2011-5: Greater sage-grouse core area protection. June 2, 2011.
- Stevens, B. S., Reese, K. P., Connelly, J. W. and Musil, D. D. 2012. Greater sage-grouse and fences: Does marking reduce collisions? *Wildlife Society Bulletin*, 36: 297–303.
- Stiver, S.J., A.D. Apa, J.R. Bohne, S.D. Bunnell, P.A. Deibert, S.C. Gardner, M.A. Hilliard, C.W. McCarthy, and M.A. Schroeder. 2006. Greater sage-grouse comprehensive conservation strategy. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.
- Stiver, S.J., E.T. Rinkes, and D.E. Naugle. 2010. Sage-grouse Habitat Assessment Framework. U.S. Bureau of Land Management. Unpublished Report. U.S. Bureau of Land Management, Idaho State Office, Boise, Idaho.
- Wallestad, R. and D. Pyrah. 1974. Movement and nesting of sage-grouse hens in central Montana. *Journal of Wildlife Management* 38(4): 630-633.
- Wallestad, R. and P. Schladweiler. 1974. Breeding season movements and habitat selection of male sage grouse. *Journal of Wildlife Management* 38(4): 634-637.

SIGNATURES

IN WITNESS WHEREOF, THE COOPERATORS HERETO, agree to execute this CCA, effective as of the date of the last signature, and hereby commit to carry out the responsibilities identified in the "Responsibilities of the Cooperators" section of this agreement.



State Director
Bureau of Land Management

Date

9/22/14



Field Supervisor
U.S. Fish and Wildlife Service
Wyoming Ecological Services Field Office

Date

8-11-14

Table 1. Sage-Grouse Conservation Measures -This table describes threats to sage-grouse addressed in the CCA. It provides a list of conservation measures to address the identified threats, and it describes the conservation benefits anticipated from implementing the conservation measures. Monitoring, described in this CCA will be used to evaluate the implementation and effectiveness of the selected conservation measures. Conservation measures are derived from existing guidelines for managing sage-grouse populations and their habitats issued by the BLM (2004, 2011); Western Association of Fish and Wildlife Agencies (Connelly et al., 2000); and an interagency team of managers, fire ecologists, range conservationists, and wildlife biologists (BLM et al. 2000).

THREAT	CONSERVATION MEASURES	CONSERVATION BENEFITS	COMPLIANCE MONITORING
Fragmentation of the Landscape			
Fragmentation of the landscape causes birds to leave leks or abandon nests or important habitats (i.e., direct impact to nests and brooding hens), resulting in decreased reproductive success.	Maintain contiguous habitat by avoiding fragmentation (e.g., do not subdivide property; enter into conservation easements; consolidate new roads, buildings, power lines).	Reduces disruptions to sage-grouse activities, maintains habitat quality & quantity, maintains population connectivity and recruitment, and reduces vulnerability to predation	Describe measures taken to avoid fragmentation of the habitat (e.g., consolidating new and existing roads, buildings, power lines). If conservation easements are implemented, describe any signed and acres enrolled.
Infrastructure			
Infrastructure (e.g., power lines, roads, fences) can fragment sage-grouse habitat, decreasing sage-grouse use and habitat quality.	Convert electrically (AC) powered pumps or wind mills to solar.	Removes or reduces amount of habitat fragmentation and mortality due to infrastructure across the landscape	Describe specific actions taken to avoid new infrastructure or consolidate or otherwise minimize existing infrastructure to comply with these conservation measures.
	Avoid building new infrastructure (e.g., roads, buildings, fences) within 0.6-mile of occupied leks and within sage-grouse habitats. In core areas, use the DDCT method as outlined in the Governor’s Executive Order 2011-5.		
	Consolidate existing roads, buildings, etc. within 0.6 mile of occupied leks or within sage-grouse habitats.		
	If feasible, bury new and existing power lines.		
Restoring Disturbed Habitats			
Disturbed, degraded, or fragmented sage-grouse habitat not restored or reclaimed results in permanent loss of sage-grouse habitat quality and quantity.	Implement restoration projects in areas with known issues/concerns.	Enhances degraded habitats and reduces potential for spread of noxious weeds Increases success and reduces time necessary	Describe any restoration projects and status of same in annual monitoring reports.
	Rest newly seeded/planted rangeland from livestock use. Consult agency specialist for the amount of time to rest.		Describe management plan, actions taken to implement the plan, and monitoring to measure success.

	Work with agencies to include provisions for successful interim reclamation and complete restoration of habitats that have experienced development and/or surface disturbing activities.	for successful establishment of new plantings	Describe restoration or reclamation plan, actions taken to implement the plan, and monitoring to measure success.
<i>Establishment of Non-native Monocultures</i>			
Establishment of plant communities that do not provide suitable habitat (e.g., monocultures of non-natives such as crested wheatgrass) reduces sage-grouse habitat quality and quantity.	Do not introduce non-natives (e.g., crested wheatgrass) tending toward monocultures on enrolled lands, except non-persistent annual grasses used for soil protection until perennial native vegetation can be established (e.g., sterile Triticale) or non-invasive beneficial forbs.	Reduces impacts to sage-grouse habitat quality and quantity	Describe specific action taken to avoid introduction of invasive non-native vegetation. Describe monitoring to detect potential presence of non-natives.
	Work to remove the invasive, non-native vegetative component; inter-seed range with native/beneficial seed mixes.		Describe which non-natives detrimental to sage-grouse habitat quality were present. Describe actions to remove any detrimental non-native vegetation.
<i>Management of Invasives and Non-native Plant Species</i>			
Establishment of invasive plant species (including post wildland fire) reduces sage-grouse habitat quality and quantity.	Participate in weed-control groups/processes such as Cooperative Weed Management Areas (CWMAs) or a Coordinated Resource Management (CRM).	Reduces impacts to sage-grouse habitat quality and quantity	Describe your activity in these programs.
	Work with management agencies (e.g., BLM, USFS) or Weed and Pest Districts to identify areas of invasives and work to control them.		Describe the method of treatment and number of acres treated. Monitor and report treatment results.
	Work with PA to ensure suitable reclamation of weed treated areas for sage-grouse (e.g., seed mixes in sage-grouse habitat with appropriate shrub, forb, and grass components). Rest newly seeded/planted rangeland from livestock use. Consult agency specialist for amount of time to rest.		Describe actions to reclaim these areas.
	Use state-certified weed-free seed mixes and mulches.		Describe any weed-free seed mixes and mulches used.
	Work with PA specialists to address post-wildland fire issues.	Reduces impacts from wildfires or minimizes likelihood of wildfires	Describe management before and/or after wildland fire.
	Work with PA specialists to address and prevent wildland fire, especially if rangelands have a cheatgrass component. This is most relevant for areas adjacent to railroads, interstates, and in the Powder River Basin.		
<i>Surface Water Developments/Disease</i>			

Surface water developments such as ponds may increase mosquito habitat, resulting in increased sage-grouse mortality from disease (e.g., WNV). This is most relevant in northeast Wyoming, where WNV is prevalent.	Treat mosquito larvae present in ponds using <i>Bacillus thuringiensis</i> or appropriate chemicals.	Reduces potential for direct mortality and/or disease transmission	Describe if and when larvae were treated.
	Where new pond construction is proposed (e.g., for livestock or waterfowl), use innovative design for ponds (e.g., pipe water to trough offsite from a pond with steep sides to prevent establishment of aquatic vegetation); include wildlife escape ramp as needed.		Describe if and where new ponds were constructed, including pond design.
	Report to either WGFD or FWS within 24 hours any dead or sick sage-grouse found.		Describe when and where any dead or sick sage-grouse were found.
Sagebrush Management			
Sagebrush management (e.g., prescribed fire, chemical, mechanical) can result in a reduction of sage-grouse habitat quality and quantity.	Avoid eradicating sagebrush. Undertake no new conversion of rangeland to cropland.	Maintains or enhances sagebrush communities	Describe actions taken (or not taken) to avoid reducing sagebrush.
	Work with agency specialists to plan sagebrush treatments, avoiding areas currently providing sage-grouse habitat. Agency specialists will determine if sagebrush treatments are part of an appropriate landscape plan. After a plan is developed with agency specialists and if sagebrush treatment is warranted, utilize a mosaic pattern of treatment rather than a large uniform block. Avoid fire for sagebrush treatments in areas with less than 12 in annual precipitation. Work with agency specialists to develop prescribed fire management plans to address timing (e.g., spring burn versus fall), as well as the importance of treatment of the potential habitat to sage-grouse.		Describe sagebrush management.
Livestock Management and Land Health			
Some grazing management practices alter shrub cover and/or grass and forb composition, reducing sage-grouse habitat quality and quantity.	Work with agency specialists to inventory vegetation and compare with the Ecological Site Description.	Maintains or enhances sage-grouse habitat, reproduction, and survival	Describe how a vegetative inventory was conducted.
	Within 12 months, work with PAs to develop and implement a written conservation management plan.		Provide the conservation management plan to the FWS.
		Within 24 months, develop and implement a written grazing management plan (a key component of any conservation management plan) to maintain or enhance the existing plant community as suitable sage-grouse habitat. This may be accomplished by site-specific modifications to grazing season of use, location, duration, frequency, number of animals, and/or types of livestock (see Cagney et al. 2010).	Minimizes potential for adverse impacts caused by grazing

Concentration of livestock caused by activities such as stock tank placement, branding, and roundup may impact vegetation and soil structure, resulting in a reduction of sage-grouse habitat quality and quantity. Intensity and duration of livestock present will affect the extent of impacts.	Avoid (or rotationally utilize) known nesting and brood-rearing habitat as a location for activities that concentrate livestock such as stock tank placement, branding, and roundup.	Maintains or enhances sage-grouse habitat, reproduction and survival Minimizes potential for adverse impacts caused by grazing	Describe how these habitat types were avoided.
	Place salt or mineral supplements in sites minimizing impacts to sage-grouse habitat.		Describe locations of salt or mineral supplements in relation to sage-grouse habitat.
	Avoid placing salt or supplements within 0.25-mile of riparian habitats.		Describe locations of salt or mineral supplements in relation to riparian habitat.
	If necessary, fence riparian habitat with markers (consult agency specialist), to protect habitat from trampling; or implement a grazing strategy.		Describe fencing of riparian habitats.
Woodland Encroachment			
Encroachment of woodland species (e.g., juniper, conifers, Russian olive, and salt cedar) into sage-grouse habitat can lead to a reduction in the amount of sage-grouse habitat, a reduction in its use, or abandonment.	Treat/remove undesirable woodland species encroaching into sage-grouse habitats. Work with agency specialists to determine if treatment is needed and an appropriate treatment method. Any treatment should include measures to control invasive species, particularly south-facing slopes which are conducive to cheat grass and thistle establishment.	Maintains important existing sagebrush communities	Describe any treatment in areas with encroachment and the number of acres treated.
Livestock Management in Important Sage-grouse Habitats			
Livestock, humans, and vehicles can physically disturb birds and cause them to leave leks or abandon nests (i.e., direct impact to nests and brooding hens), resulting in decreased reproductive success.	From March 1 through May 15, avoid new surface disturbing activities (e.g., roads, pipelines, corrals for branding) within 0.6-mile of the perimeter of occupied leks.	Reduces disruptions to lek and nesting activity , thereby reducing abandonment and predation risk	Describe any surface disturbing activities from March 1 – May 15.
	From March 1 through May 15, avoid disruptive activities between 6 p.m. and 8 a.m. within 0.6-mile of the perimeter of occupied leks.		Describe any disruptive activities from March 1 – May 15.
	From March 15 through June 30, avoid concentrating livestock in nesting habitat.		Describe if livestock were concentrated in potential nesting habitat from March 15 – June 30.
	From March 15 through June 30, avoid off-trail vehicular travel in nesting habitat, unless it is essential for routine ranch management (including but not limited to: repairing fence, “doctoring” livestock, finding lost livestock).		Describe if there was off-trail vehicular traffic from March 15 – June 30.
Design and Placement of Water Developments (including ponds and springs)			
Livestock watering tanks and troughs can cause sage-grouse mortality by entrapment and	Fit existing and new water troughs with escape ramps.	Reduces potential for direct mortality	Describe where and how many ramps were installed.

drowning.			
Water diversions and spring developments can dry up meadow and riparian areas, reducing sage-grouse habitat quality and quantity.	Allow springs to be free-flowing (do not capture all of the water) at the point of diversion or source of the spring in order to maintain or enhance a wet riparian area. If necessary, fence riparian habitat with markers to protect habitat from trampling (consult agency specialist).	Maintains or enhances availability of nesting/early brood-rearing habitats	Describe if springs were developed and where habitat was protected.
Predation			
Some farm and ranch operations can increase opportunities for avian and mammalian predation of sage-grouse and their nests.	Avoid locating new garbage and dead piles closer than 0.6-mile from occupied leks, or within nesting or brood-rearing habitat. Relocate existing garbage and dead piles within 0.6-mile of occupied leks, nesting, or brood-rearing habitat. Limit access to leks, nesting, or brood-rearing habitat by domestic pets.	Reduces direct mortality to individuals and broods	Describe any measures taken to avoid predation.
	Install raptor perch deterrents on existing structures (e.g., power poles).		
Insecticide Use			
Application of insecticides can remove insects important to sage-grouse, reducing sage-grouse habitat quality.	Implement the Reduced Area & Application Treatment (RAAT) approach. Avoid carbaryl/malathion.	Maintains insects as a seasonally important food item	Describe any spraying that occurred on the property and if RAAT was implemented.
	Work with agency specialists to plan and design control efforts that avoid harming non-target species.		Describe your plan to avoid harm to non-target species and actions taken to implement plan.
Drought			
Prolonged drought can harm plants important to sage-grouse, reducing sage-grouse habitat quality and quantity.	Work with agency specialists to incorporate a drought management component into grazing plan, considering the needs of sage-grouse (e.g., stocking conservatively, destocking when necessary to reduce impacts on land health, applying grazing regimes protective of sage-grouse habitats to the greatest extent practicable).	Maintains or reduces potential loss of sage-grouse habitat, reproduction, and/or survival	Describe if Animal Unit Months or season of use changed as a result of drought.
	Adjust livestock use (season of use, intensity, and/or duration) to reduce the impact on perennial herbaceous cover, plant species diversity, and plant vigor.		
Big Game Populations			
Concentrated or overabundant big game populations can harm plant communities important to sage-grouse, reducing habitat quality and quantity.	Utilize public hunting access opportunities to manage big game numbers and associated habitat conditions. Enroll properties in hunter management areas or walk-in area programs through WGFD’s Private Lands Public Wildlife program. Cooperatively work with WGFD setting the big game season	Reduces impacts to sage-grouse habitats Maintains or enhances sage-grouse reproduction	Describe if lands were opened to hunting.

	and/or objective.	and survival	
	Cooperatively work with WGFD to implement habitat treatments to distribute big game.		Describe response of habitat to treatment.
<i>Placement of Fences</i>			
Sage-grouse can collide with fences resulting in serious injury or death.	Avoid construction of new fences within 0.6-mile of occupied leks or riparian areas where broods are known to concentrate. If fencing is needed for livestock management, mark fence.	Reduces mortalities from collisions	Describe the location of new fences.
	Consult with agency specialist to relocate, redesign (e.g., wood posts, buck and pole fences), or mark existing fences (e.g., wire markers) that occur within 0.6-mile of a lek, especially where previous collisions have been observed.		Describe if existing fences within 0.6-mile of occupied leks were relocated, redesigned or marked.

APPENDIX A.

BASIC STEPS TO APPLY FOR AN INDIVIDUAL CCA

This is a 5-step process with a simple screen to fill out first, prior to applying for a CCA. Once the screen is completed, the FWS will review the information submitted. In conjunction with the BLM, the FWS will gather the needed information. The BLM will help the Permittee/Lessee complete the application.

STEP 1: Complete the Information Screen (Appendix B)

STEP 2: BLM will collect the following information to help characterize the quality and quantity of sage-grouse habitat and opportunities for conservation:

-
- Information on land status/ownership and mineral ownership
 - Aerial photos of property
 - Create map of the allotment boundary
 - Determine if the property is in or adjacent to core area
 - Pull data on sage-grouse. Are there leks on the property or nearby?
 - Oil and gas conservation commission data on wells active and/or plugged and abandoned
 - Data on wind farms or other large-scale projects in the area, FAA data, Industrial Siting Council, Transmission/pipelines (pipeline authority)
 - Other information
 - Map locations of spring development, stock tank, salt/mineral for the property
-

This is important information needed to process and prioritize the application and to develop individual needs of applicants.

STEP 3: BLM will review grazing lease and help the Permittee/Lessee complete individual CCA application (Appendix C).

STEP 4: FWS prioritizes applications (if necessary) received by batch date.

STEP 5: FWS reviews application and approves individual CCA.

APPENDIX B.

BUREAU OF LAND MANAGEMENT (BLM) WYOMING RANGELAND MANAGEMENT SAGE-GROUSE CCA INFORMATION SCREEN

Grazing Permittee/Lessee Information

Date of Submittal:

Name:

Address:

Phone Number:

E-mail:

Do you already have a CCAA for your private lands or have you applied for a CCAA?

☐ Yes ☐ No

Grazing Allotment Information

BLM Field Office:

Grazing Permit/Lease Authorization Number:

Allotment Name(s) and Number(s):

Do sage-grouse core area habitats occur within the permitted allotment(s)?

☐ Yes ☐ No List approximate proportions of core and non-core sagebrush habitats

BLM Field Office

Do all areas in the allotment(s) achieve BLM WY Standards for Healthy Rangelands?

☐ Yes ☐ No ☐ To be determined

If the allotment(s) is failing to achieve the land health standards, what was determined to be the significant causal factor(s)?:

If existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards and conform with the guidelines, what appropriate actions have been taken (see 43 CFR 4180.2 (c))?:

Documentation:

Please attach a map of the allotment(s) to be covered by the CCA. Please note pertinent habitat features (e.g., sage-grouse core area boundaries, active, inactive or historic leks, spring developments, stock tanks, salt/mineral locations, etc.).

If available, attach the most current BLM land health assessment, evaluation, and determination for the areas in the allotment(s).

APPENDIX C.

WYOMING BLM INDIVIDUAL SAGE-GROUSE CCA APPLICATION

Grazing Permittee/Lessee:

Address:

Phone Number:

E-mail:

Description of Allotment Conditions:

IN WITNESS WHEREOF, THE COOPERATORS HERETO have, as of the last signature date below, executed this Candidate Conservation Agreement to be in effect.

Grazing Permittee/Lessee(s)

Date

Field Manager, Bureau of Land Management

Date

Field Supervisor, Wyoming Ecological Services Office
U.S. Fish and Wildlife Service Region 6

Date

The enrolled grazing permittee must adhere to all terms and conditions of the umbrella CCA. According to the 2010 listing finding, the primary threat to sage-grouse is habitat fragmentation. Therefore, in order for this CCA to address the conservation needs of the sage-grouse, the following CM must be implemented by all enrolled permittees on the enrolled grazing lease:

"

Maintain contiguous habitat by avoiding fragmentation (e.g., do not subdivide property, consider conservation easements).

In addition, all enrolled permittees will agree to undertake the following measures:

- (1) Avoid impacts to populations and individual sage-grouse present on their enrolled grazing lease to the maximum extent practicable.
- (2) Continue current practices identified as conserving sage-grouse.
- (3) Implement all agreed upon CMs in site-specific plans within the agreed upon timeframe.
- (4) Implement a conservation management plan within 12 months following approval of their individual CCA.
- (5) Provide the FWS or their agreed upon representatives access to the enrolled property at mutually agreeable times to identify or monitor sage-grouse and their habitat, implement

CMs, and monitor effectiveness and compliance with individual CCAs.

- (6) When requested, allow the BLM to share with the FWS, habitat and other planning or monitoring information related to the enrolled properties.
- (7) Cooperate and assist with monitoring activities and other reporting requirements identified in site-specific plans.

The process for selecting specific CMs applicable to individual grazing leases will be based on the threats identified for the covered property from the following table. Each identified threat will be addressed and will have one or more corresponding CM(s). The FWS and BLM recognize each grazing lease is unique and the CMs will be site-dependent. The FWS recognizes not every potential CM listed for a threat will be appropriate for a given property.

Conservation Measures and Monitoring Requirements

The following threats, conservation measures, current or future practices, and comments are identified for this property:

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Fragmentation of the landscape physically disturbs and causes them to leave leks or abandon nests or important habitats, (i.e., direct impact to nests and brooding hens), resulting in decreased reproductive success.	Maintain contiguous habitat by avoiding fragmentation <i>See Table 1 for more information Pg21</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Infrastructure (e.g., power lines, roads, fences) can fragment sage-grouse habitat, decreasing sage- grouse use and habitat quality.	Convert electrically (AC) powered pumps solar. Avoid building new infrastructure Consolidate existing roads, buildings, etc. If feasible, bury new and existing power lines. <i>See Table 1 for more information Pg21</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Disturbed, degraded, or fragmented sage-grouse habitat that is not restored or reclaimed results in a loss of sage-grouse habitat quality and quantity.	Implement restoration projects ... Rest newly seeded/planted... Work with agencies to include provisions... <i>See Table 1 for more information Pg21</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Establishment of plant communities that do not provide suitable habitat (e.g., monocultures of non-natives such as crested wheatgrass) reduces sage-grouse habitat quality and quantity.	<p>Do not introduce non-natives</p> <p>Work to remove the invasive, non-native vegetative component</p> <p><i>See Table 1 for more information Pg22</i></p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	
Establishment of invasive plant species (including post wildland fire) reduces sage-grouse habitat quality and quantity.	<p>Participate in weed-control groups/processes ...</p> <p>Work with management agencies...to identify areas of invasives...</p> <p>Work with PA to ensure suitable reclamation...</p> <p>Use state-certified weed-free seed mixes and mulches.</p> <p>Work with PA specialists to address post-wildland fire issues</p> <p>Work with PA specialists to address and prevent wildland fire...</p> <p><i>See Table 1 for more information Pg22</i></p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	
Surface water developments such as ponds may increase mosquito habitat, resulting in increased sage- grouse mortality from disease (e.g., WNv). This is most relevant in northeast Wyoming, where WNv is prevalent.	<p>Treat mosquito larvae...</p> <p>...use innovative design for ponds...</p> <p>Report to either WYGD or FWS within 24 hours any dead or sick sage-grouse found</p> <p><i>See Table 1 for more information Pg23</i></p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> n/a</p>	

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Sagebrush management (e.g., prescribed fire, chemical, mechanical) can result in a reduction of sage-grouse habitat quality and quantity.	<p>Avoid eradicating sagebrush...</p> <p>Work with agency specialists to plan sagebrush treatments...</p> <p><i>See Table 1 for more information Pg23</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Some grazing management practices alter shrub cover and/or grass and forb composition, reducing sage- grouse habitat quality and quantity.	<p>Work with agency specialists to inventory vegetation...</p> <p>Within 12 months, work with PAs... conservation management plan</p> <p>Within 24 months, develop and implement a written grazing management plan...</p> <p><i>See Table 1 for more information Pg23</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Concentration of livestock caused by activities such as stock tank placement, branding, and roundup may impact vegetation and soil structure, resulting in a reduction of sage- grouse habitat quality and quantity. Intensity and duration of livestock present will affect the extent of impacts.	<p>Avoid (or rotationally utilize) known nesting...</p> <p>Place salt or mineral supplements in sites...</p> <p>Avoid placing salt or supplements within 0.25-mile of riparian Habitats</p> <p>If necessary, fence riparian habitat with markers...</p> <p><i>See Table 1 for more information Pg24</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Encroachment of woodland species (e.g., juniper, conifers, Russian olive, and salt cedar) into sage-grouse habitat can lead to a reduction in the amount of sage-grouse habitat, a reduction in its use, or abandonment	Treat/remove undesirable woodland species encroaching into... <i>See Table 1 for more information Pg24</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Livestock, humans, and vehicles can physically disturb birds and cause them to leave leks or abandon nests (i.e., direct impact to nests and brooding hens), resulting in decreased reproductive success.	From March 1 through May 15, avoid new surface disturbing... From March 1 through May 15, avoid disruptive activities... From March 15 through June 30, avoid concentrating livestock... From March 15 through June 30, avoid off-trail vehicular... <i>See Table 1 for more information Pg24</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Livestock watering tanks and troughs can cause sage-grouse mortality by entrapment and drowning	Fit existing and new water troughs with escape ramps <i>See Table 1 for more information Pg25</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Water diversions and spring developments can dry up meadow and riparian areas, reducing sage-grouse habitat quality and quantity.	Allow springs to be free-flowing... <i>See Table 1 for more information Pg25</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Some farm and ranch operations can increase opportunities for avian and mammalian predation of sage- grouse and their nests.	Avoid locating new garbage and dead piles... Install raptor perch deterrents... <i>See Table 1 for more information Pg25</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Application of insecticides can remove insects important to sage- grouse, reducing sage-grouse habitat quality.	Implement the Reduced Area & Application Treatment... Work with agency specialists to plan and design... <i>See Table 1 for more information Pg25</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Prolonged drought can harm plants important to sage-grouse, reducing sage-grouse habitat quality and quantity.	Work with agency specialists to incorporate a drought management... Adjust livestock use... <i>See Table 1 for more information Pg25</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	

Threat(s)	Conservation Measure(s)	Current Practice	Future Practice	Comments
Concentrated and/or overabundant wildlife populations can harm plant communities important to sage-grouse, reducing habitat quality and quantity.	Utilize public hunting access opportunities... Cooperatively work with WGFD to... <i>See Table 1 for more information Pg26</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Sage-grouse can collide with fences, resulting in serious injury or death	Avoid construction of new fences within 0.6-mile of... Consult with agency specialist to relocate, redesign... <i>See Table 1 for more information Pg26</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	

APPENDIX D.

SAMPLE ANNUAL CCA OBSERVATIONAL RANGELAND MONITORING REPORT - Referred to as “biological monitoring” in the CCAA

Landowner Name:

Address:

Phone Number:

E-mail:

CCA Tracking No.:

Allotment:

Observational Biological Monitoring:

1. Monitoring rangelands for noxious weeds: This is especially relevant in areas of disturbed soils. The goal here is to enable early detection and control of non-native and invasive species. This is intended to be ongoing effort to identify and facilitate early treatment of noxious weeds and non-native or invasive species, before they become firmly established. Repeat the following text block as necessary.

Date(s) infestations noted:

Location of infestation(s):

Species noted:

2. Observational record of sage-grouse observed on enrolled allotment. Repeat the following text block as necessary.

Date(s):

Number of sage-grouse / sage-grouse broods observed:

Location observation(s):

3. Observational record of sage-grouse mortalities on the enrolled allotment (e.g., road kill, fence collision, predation, etc.). Repeat the following text block as necessary.

Date(s):

Number of sage-grouse mortalities observed:

Location and circumstance(s):

APPENDIX B.

BUREAU OF LAND MANAGEMENT (BLM) WYOMING RANGELAND MANAGEMENT SAGE-GROUSE CCA INFORMATION SCREEN

Grazing Permittee/Lessee Information

Date of Submittal:

Name:

Address:

Phone Number:

E-mail:

Do you already have a CCAA for your private lands or have you applied for a CCAA?

☐ Yes ☐ No

Grazing Allotment Information

BLM Field Office:

Grazing Permit/Lease Authorization Number:

Allotment Name(s) and Number(s):

Do sage-grouse core area habitats occur within the permitted allotment(s)?

☐ Yes ☐ No List approximate proportions of core and non-core sagebrush habitats

BLM Field Office

Do all areas in the allotment(s) achieve BLM WY Standards for Healthy Rangelands?

☐ Yes ☐ No ☐ To be determined

If the allotment(s) is failing to achieve the land health standards, what was determined to be the significant causal factor(s)?:

If existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards and conform with the guidelines, what appropriate actions have been taken (see 43 CFR 4180.2 (c))?:

Documentation:

Please attach a map of the allotment(s) to be covered by the CCA. Please note pertinent habitat features (e.g., sage-grouse core area boundaries, active, inactive or historic leks, spring developments, stock tanks, salt/mineral locations, etc.).

If available, attach the most current BLM land health assessment, evaluation, and determination for the areas in the allotment(s).