United States Department of Agriculture
Forest Service

Greater Sage-grouse Bi-state Distinct Population Segment Forest Plan Amendment

Record of Decision

Humboldt-Toiyabe National Forest; Alpine and Mono Counties, California; and Douglas, Esmeralda, Lyon, and Mineral Counties, Nevada

May 2016

Forest Service **Humboldt-Toiyabe National Forest** **1200 Franklin Way Sparks, NV 89431 775-331-6444**

File Code: 1900 **Date:** MAR 21 2017
Route To:

Subject: Administrative/Clerical Corrections to Amendment 18 of the Toiyabe National Forest Land and Resource Management Plan

To: Public

With this letter I am notifying the Forest and public that I am approving the following administrative changes to the Toiyabe National Forest Land and Resource Management Plan Amendment 18 Greater Sage-Grouse Bi-State Sage-Grouse Distinct Population Segment Forest Plan Amendment Record of Decision (May 2016 ROD).

These administrative changes provide corrections for clerical errors and omissions made in the May 2016 ROD in accordance with 36 CFR 219.13 (c). An administrative change is any change to a plan that is not a plan amendment or plan revision. Administrative changes include corrections of clerical errors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or changes to other content in the plan (§ 219.7(f)).

This letter provides remedies for the following clerical errors and omissions in the May 2016 ROD:

Page 37, Paragraph 3, complete the last sentence with: at: T:\FS\NFS\HumboldtToiyabe\Project\SO\BiStateSageGrouseAmend\GIS\BSSG_HabitatProjectAreaMap20121120

Page 37, Paragraph 3, strike out (~~Public Law 100-500, April 26, 1989~~) Replace with (Public Law 100-550, October 28, 1988)

Page 37 (Table 1) Row 5 and 6 are redundant, Delete Row 5: "~~For winter cover and food there is <5% phase I (>0 to <25% cover), no phase II (25 to 50% cover), no phase III (>50% cover) within 0.53 mile (850 meter) buffer from center of data collection plot (USGS in preparation (a)).~~"

Page 45, Range Permitting, RP-G-01, strike out (~~ROD Table 1a or 1b~~) Replace with (ROD Table 1)

These corrections are to be effective immediately and a copy of this notice should be appended to online copies of the May 2016 ROD to reflect these changes.

WILLIAM A. DUNKELBERGER
Forest Supervisor

Record of Decision

Greater Sage-grouse Bi-state Distinct Population Segment Forest Plan Amendment

USDA Forest Service, Humboldt-Toiyabe National Forest

Alpine and Mono Counties, California
Douglas, Esmeralda, Lyon, and Mineral Counties, Nevada

I. Introduction

On November 30 2012 the Humboldt-Toiyabe National Forest published a Notice of Intent to prepare an Environmental Impact Statement (EIS) that would assess the environmental impacts of a proposed amendment to the Toiyabe Land and Resource Management Plan (LRMP). This action was needed to address the "proposed threatened" Endangered Species Act (ESA) finding from the U.S. Fish and Wildlife Service (USFWS 2010) by addressing needed changes in the management and conservation of the bi-state distinct population segment (DPS) habitats within the amendment area and to support the greater sage-grouse bi-state DPS population management objectives within the states of Nevada and California.

This Record of Decision (ROD) is the culmination of three years of analysis and public involvement that has included the publication of a draft EIS in November of 2013, a Revised draft EIS in July, 2014, and a Final EIS and draft ROD published in February 2015. This ROD (May 2016) documents my final decision on the Plan Amendment desired conditions, objectives, standards and guidelines that will provide the direction needed in the LRMP to conserve, enhance and/or restore sagebrush and associated habitats to provide for the long-term viability of the bi-state DPS.

The amendment area for the EIS covered both National Forest System (NFS) lands and public lands managed by the Bureau of Land Management (BLM) Carson City District and the Battle Mountain District, Tonopah Field Office. As a cooperating agency the BLM assisted with the analysis and intends to publish their own ROD based on the analysis in the EIS and project record. This ROD applies only to the NFS lands within the amendment area (Figure 1). Any mention of the BLM is incidental to the FEIS analysis and not an indication of the BLM ROD which will be published in a separate document.

II. Amendment Area

The area affected by the Greater Sage-grouse Bi-state Distinct Population Segment Forest Plan Amendment (amendment area) is located on the Carson and Bridgeport ranger districts of the Humboldt-Toiyabe National Forest (Forest). The amendment area comprises 967,878 acres of National Forest System (NFS) lands administered by the Humboldt-Toiyabe National Forest along the boundary between California and Nevada. Within the amendment area boundary there is approximately 426,809 acres of bi-state DPS habitat managed by the Forest Service. The amendment area extends south of Carson City, Nevada, to the Humboldt-Toiyabe National Forest boundary north of Bishop California. The overall amendment area boundary, used for analysis, also includes 1.7 million acres of Bureau of Land Management (BLM) land managed by the Carson City District and the Tonopah Field Office. "Amendment area" as used in this document refers only to the NFS lands described above.

This amendment applies to all National Forest System (NFS) lands within the amendment area boundary (FEIS, Figure 2-1). The amendment area boundary includes portions of Douglas, Esmeralda, Lyon, and Mineral counties in Nevada; and portions of Alpine, Inyo, and Mono counties in California. The amendment area boundary includes NFS lands, BLM public lands, state, and private lands. The management direction in the amendment as presented in this ROD will only apply to NFS lands (Attachment 2).

III. Decision

This Record of Decision (ROD) for the Greater Sage-grouse Bi-state Distinct Population Segment Forest Plan Amendment (amendment) documents my decision to approve the amendment to the Toiyabe LRMP as described in the attached Amendment document (Attachment 1).

I have chosen to select these plan components because they provide more specific, less discretionary management direction for the Forest decision makers the USFWS was seeking in their March 2010 finding. As new projects and activities are identified these plan components will provide clear direction to these decision makers for the conservation, enhancement and restoration of bi-state DPS habitat.

The need for this action has been to conserve the bi-state DPS and its habitat through the adoption of desired conditions, goals, objectives, standards and guidelines. This need addresses the USFWS March 2010 finding that the existing regulatory mechanisms to protect sage grouse and their habitats "afford sufficient discretion to the decision makers as to render them (existing regulatory mechanisms) inadequate to ameliorate the threats to the bi-state DPS". The proposed action was developed to amend the LRMP with stronger management direction that removes the discretion present in the current plan and include standards and guidelines which will be used to protect habitat from activities, direct restoration of habitat, and move the habitat toward the desired conditions.

In the final environmental impact statement (EIS) the Forest considered two action alternatives and the no-action alternative. The No Action Alternative would continue to implement the LRMP. The action alternatives included the proposed action (Alternative B) which was developed first in the draft EIS, then modified in the revised draft EIS in response to comments received during the public comment period. Alternative B (modified) retained many elements of the original proposed action. Modifications included adding more specificity to limit activities that may be proposed in bi-state DPS habitat, and less ambiguity regarding the application of standards and guidelines to discretionary actions. Alternative C was added between the draft EIS and the revised draft EIS in response to comments. Alternative C includes more prohibitions on discretionary actions. It is from these three alternatives that I have selected my decision. The standards and guidelines in the approved amendment provide greater assurance of conserving, enhancing, and/or restoring sagebrush and associated habitat to provide for long-term viability of the bi-state DPS, protecting habitat and reducing threats which are the purposes of the amendment.

In Table ROD-1 I have listed the standards and guidelines I am selecting, along with my rationale for selecting each. I have used the information presented in the final EIS, and included in the project record, to make this decision. I have not selected one alternative over the other, but selected a mix of standards and guidelines from those available in the two action alternatives. This decision provides the overall guidance to manage the sagebrush ecosystem for the long-

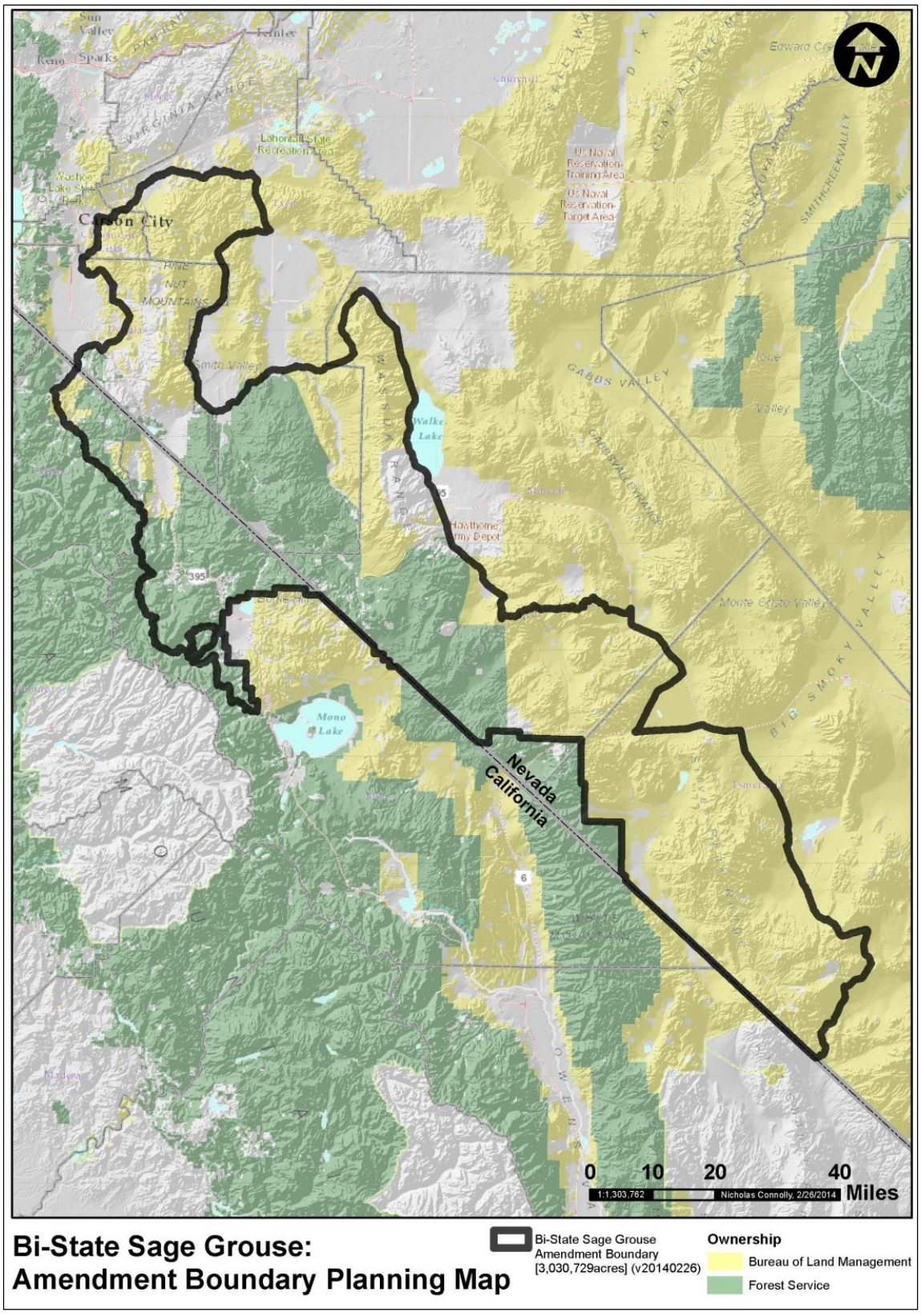

Figure 1. Forest Service administered lands within the amendment area.

term persistence of the bi-state DPS in their habitat. It provides direction for the conservation of the habitat through the prohibition of select discretionary activities. It also provides for the enhancement and restoration of habitat by the inclusion of standards and guidelines that direct how future activities proposed for habitat improvement or restoration will be conducted.

The amendment that I approve provides clear management direction through the adoption of the following plan components:

- Adopts the desired habitat conditions as displayed in Table 1 of Attachment 1 of this ROD;
- Adopts the goals and objectives as displayed in Table 2 of Attachment 1;
- Adopts the seasonal dates for the bi-state DPS as shown in Table 3 of Attachment 1; and
- Adopts the standards and guidelines in Table ROD-1 and Table 4 of Attachment 1.

All these components have specific definitions, but at this time I want to stress the definitions of standards and guidelines. These definitions along with others can be found in the 2012 planning rule (36 CFR 219 (e)(1)).

- Standard: A mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.
- Guideline: A constraint on project or activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met (36 CRF section 219.15(d)(3)). Guidelines are established to help achieve or maintain desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

The LRMP and plan components in this decision provide management direction for future project and activity analysis and implementation. The plan implements the regulations which implement the laws passed by Congress for the management of NFS lands. Parallel to the laws and regulations governing land management issues are a number of other laws and regulations which need to be followed. My decision is consistent with those laws, including the Endangered Species Act, the Clean Water Act, the General Mining Laws, and others. Any project or activity implementing the standards and guidelines in my selected decision will also be required to be consistent with all the relevant laws regulations and policies pertinent to the project or activity and the resources it may affect.

The amendment does not authorize any on-the-ground actions. Implementation of the amendment applies to all future proposed actions administered by the Forest occurring within bi-state DPS habitat on the Forest. The amendment does not apply to valid existing rights, except as specified in the amendment.

My decision applies to all NFS lands located within the amendment area. This includes lands that are bi-state DPS habitat in management area 6 of the Toiyabe LRMP and lands transferred to the Forest Service by the 1989 Nevada Enhancement Act.

IV. Management Direction, Monitoring, and Mitigation

The purpose and need for this amendment is to conserve, enhance or restore sagebrush and associated habitats to provide for the long term viability of the bi-state DPS. Working to improve habitat where it has been lost as a result of either natural or anthropogenic processes through the

application of the plan components in this amendment can help the Forest improve habitat. Some of the plan components in this amendment apply at the 4 mile lek buffer scale. Other plan components, where a buffer is not identified, apply to all habitats including occupied, peripherally utilized, and connective. Where applicable the plan components apply to all the bi-state DPS habitats on NFS lands within the boundaries of the Humboldt-Toiyabe National Forest.

In the Draft decision there were several proposed standards and guidelines that address tall structures. Tall Structures in bi-state habitat represent threats to the grouse in two ways. They provide perches for avian predators which prey on the nests and broods. Because of this nesting hens see the tall structures and avoid habitat where tall structures are present. This results in a reduction of useable habitat for the nesting hens and diminishes reproductive success.

I have taken all the plan components in the Draft ROD which reference tall structures and combined them into two which address the issues that tall structures create. In this decision there are AA-S-08 and AA-G-01. Both are subject to valid existing rights. AA-S-08 would prohibit the installation of tall structures within four miles of an active or pending lek. AA-G-01 would require the removal of tall structures within the 4 mile lek buffer. What constitutes a tall structure for these two plan components is defined in the glossary (Attachment 5). In the off chance that installation of a tall structure is authorized because of a valid existing right, a forest plan amendment may be required that permits the exception to AA-S-08, and best management practices associated with its construction would be included in the structure design.

As a result of previous decisions there is currently 6,764 acres of NFS lands within 4 miles of active or pending leks that is leased for geothermal energy development. Valid existing rights limit my authority to alter the stipulations on areas already leased. When those lease blocks expire or the leases are terminated the standard, MF-S-04, directs the responsible official not to consent to leasing the areas when or if the BLM brings forward a request. I am also adopting the standard MF-S-01 which requires the NSO stipulation with no modifications, exceptions or waivers on all lands not currently leased in bi-state DPS habitat. This standard would apply to the lands not previously leased but authorized for leasing in past decisions. The result of these two standards in my decision will limit impacts to bi-state DPS habitat from the exploration and development of geothermal energy. Where there may be impacts other standards and guidelines will be applied to limit or avoid impacts and mitigate those that cannot be avoided.

It is part of my decision to adopt a 3% and a 1.5 % anthropogenic disturbance cap for areas within 4.7 miles of a lek (See AA-S-02 and AA-S-03 in table 1). The 4.7 mile lek buffer was identified by Coates et al. (2013) during his study of surface use habitats of nesting, brood rearing and wintering sage grouse. What Coates et al. (2013) found was that 95% of the habitat used for nesting, brood rearing and wintering habitat falls within 4.7 miles of active leks. I also took into consideration the findings of Knick et al. (2013) that found that leks with more than 3% anthropogenic disturbance within 5 km (3.1 miles) of the lek were less productive than those leks with less than 3% disturbance inside the 5 km buffer. When I look at both the results of Coates et al. (2013) and Knick et al. (2013) I find that the scientific literature supports the adoption of a 3% anthropogenic disturbance cap to be measured at the lek buffer scale. Our buffers are 1.6 miles (2 kilometers) larger than those used in the Knick et al. (2013) paper it is extended out to protect brood rearing habitat and valuable winter habitat.

Anthropogenic disturbance caps were established for each 4.7 mile lek buffer. Existing disturbance that meets the definition of anthropogenic disturbance in the glossary was mapped and calculated for each lek buffer regardless of land ownership. When a proposed project would

occur within a buffer, the existing level of disturbance in the buffer will be compared to the anthropogenic disturbance cap, and the proposed project's area of disturbance in the buffer will be determined. If the existing level of disturbance is at or exceeds the anthropogenic disturbance cap, the project may not be approved (subject to valid existing rights). If the existing level of disturbance is below the anthropogenic disturbance cap and the project would result in total disturbance in the buffer that would remain below the anthropogenic disturbance cap, the project may be approved by the authorized responsible official. If the existing level is below the anthropogenic disturbance cap but the proposed project would result in total disturbance in the buffer that would exceed the anthropogenic disturbance cap, the project may be approved only by the Forest Supervisor with concurrence from the Regional Forester and only if new or site-specific information indicates the project would result in a net conservation gain in the overall area of bi-state DPS habitat and for the area of the proposed project. Authorizing disturbance in a lek buffer that exceeds the disturbance cap would require the preparation of a site/project specific plan amendment.

Several commenters recommended that the Forest consider the designation of special areas to preserve bi-state DPS habitat. The recommendations were for Research Natural Areas (RNA) or zoological areas on NFS lands where the special status of the land would further protect habitat by limiting the types of activities allowed within the special area. Both zoological areas and RNAs would be "designated areas" as defined in the Planning rule (36 CFR 219.19) to be areas or features identified and managed to maintain its unique special character or purpose. There are several ways for administrative areas to be designated but for zoological areas and RNAs the responsible official recommends an area and the Regional Forester designates.

Designation of a portion of habitat as an RNA would prevent the FS from implementing any active restoration action to conserve habitat threatened by the expansion of Pinyon/Juniper or other threats. As a result the designation of RNA to protect and preserve bi-state habitat would, over the long term, have the opposite outcome. Designation of zoological areas would not have the same outcome. Management direction could be developed that is focused on conserving the habitat inside the area. However, designation singles out a subset of the habitat where all habitats are important and focusing attention in one small portion of habitat results in less attention across the rest of the amendment area.

My decision does not include some of the proposed management direction found in the Bi-state Action Plan (2011), National Greater Sage-grouse Conservation Measures Report (2011), or Conservation Objective Final Report (2013). There are many useful suggestions included in these reports for the conservation, enhancement, and restoration of habitat that have been incorporated into the proposed action, alternatives, and this amendment. There are other "management actions" that I have not included in my decision such as recommendations for the development of action plans, the prioritization of actions and funds, and the cooperation or coordination with Federal agencies or partners to implement actions to improve habitat. While management direction is important—and I fully support working with our partners to develop action plans and prioritize the allocation of funds, treatments, protections or restorations—these are not management directions that need to be included in the LRMP. These are mainly processes regarding how we work with all our partners to improve conditions for the bi-state DPS.

To that end the Humboldt-Toiyabe National Forest has been fully engaged with the USFWS, BLM, U.S. Geological Survey, Nevada Department of Wildlife, and California Department of Fish and Wildlife for the last decade or more working on sage grouse issues in the bi-state DPS

habitat area. The Forest will continue to work with all of our partners to improve our understanding about the sage grouse, and conduct work to restore habitat.

Habitat Map

Management direction selected in this ROD will apply to the areas identified as habitat in Attachment 2. Habitat is subject to field verification of habitat conditions and updates as new information becomes available. The habitat shown in Attachment 2 was developed by the Technical Advisory Committee (TAC) in 2012 using the best available scientific information at that time. During the development of the habitat map the TAC considered all related habitat conditions needed by the bi-state sage grouse to fulfill their annual life cycle. This habitat map includes habitat around the leks, nesting habitat adjacent to the lek, brood rearing habitat, and connective habitat that facilitates movement between larger patches of habitat.

The habitat no longer carries qualifying designations like priority or general. As described in the FEIS and in this ROD all areas delineated as bi-state DPS habitat are important because of the highly fragmented nature and limited movement of the populations across population management unit (PMU) boundaries. The habitat map will be updated as monitoring and mapping continues and following a NEPA sufficiency review. If the review indicates potential effects not previously disclosed, the appropriate NEPA and forest planning process will be followed before updating the map. The Humboldt-Toiyabe NF would be responsible for completion of the NEPA Sufficiency Review.

Connective Areas described in chapter 3 of the FEIS and displayed in Figure 3-1 are intended to: a) spatially locate areas where management opportunities may exist to enhance SG movement between mapped habitat polygons, and b) retain small pockets of sagebrush inclusions within connective areas, if they exist, that may currently be facilitating some unknown level of SG movement between adjacent suitable habitats. The FEIS (p. 89) refers to these areas as connective areas. These areas do not currently exhibit the habitat characteristics found in the habitat displayed in Attachment 2 or FEIS, Figure 2-1, and are not considered to be habitat. Any future work proposed for these areas or areas identified in the Bi-state sage-grouse action plan will be analyzed during project specific NEPA analysis.

Transition to New Management Direction

The FEIS and Amendment were developed with the understanding that when a plan is amended, existing permits must be made consistent with the amendments “as soon as possible” (16 USC 1604(i)). Additionally, NFMA allows the Forest Service to conduct implementation “as soon as practicable “after the effective date of the ROD. Therefore, the grazing, special use, and lands and reality direction in the LRMP amendment will be implemented as soon as possible. In some cases this may require several years and any adjustments to permits will be consistent with valid existing rights, where applicable. This will allow time for close, careful, and considered consultation, cooperation, and coordination with all involved parties.

Current Plan Direction

Projects with decisions made on or after the effective date of this ROD must be consistent with the LRMP as amended by this Amendment as approved by this ROD. Projects made before the effective date of the ROD may proceed unchanged, unless otherwise addressed in this ROD. In developing the LRMP amendment approved by this ROD, the effects of these earlier decisions were considered part of the baseline against which the alternatives were evaluated. Because

earlier decisions were considered in the effects analysis, their implementation is not in conflict with the LRMP amendment.

Under NFMA, "permits, contracts, and other instruments for the use and occupancy" of NFS lands are required to be consistent with the current LRMP. However, this requirement is not absolute. In the plan revision context, NFMA specifically qualifies the requirement in three ways: (1) these documents must be revised only "when necessary," (2) these documents must be revised "as soon as practicable," and (3) any revisions are "subject to valid existing rights." Use and occupancy agreements, which might require modification of pre-existing authorizations, including those for livestock grazing and lands special use permits.

Monitoring

My decision does not include approval of the monitoring elements identified as part of the proposed action, displayed in Table 2-4 of the final EIS. I am instead adopting the Monitoring Plan developed by the Bi-State Executive Oversight Committee for Conservation of Greater Sage Grouse (Attachment 4). This plan monitors the response of sage grouse to the management actions prescribed in the Bi-state Action Plan (2012). This monitoring plan will provide data related to the effectiveness of the plan components in this amendment by tracking sage-grouse demographic patterns, movements, and habitat associations from sub-populations. The monitoring plan is not a land use planning decision and therefore not included as part of the land use plans. Changes to the monitoring plan can occur without amending the land use plan or requiring an administrative change.

Mitigation

When authorized land uses will result in habitat loss or degradation in California or Nevada, the Forest Service will require mitigation that provides for no net loss to the bi-state DPS habitat. Analysis of mitigation will include consideration of any uncertainty associated with the effectiveness of such mitigation at both the project and habitat scales. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. For the Nevada portion of the habitat the Forest Service and BLM have developed a framework to use the State's Conservation Credit System (CCS). The Forest Service may pilot the use of the CCS to enhance mitigation options, improve habitat on NFS lands by authorizing credit development projects, and provide for mitigation where the FS lacks authority to require sufficient measures to achieve no net loss. The Monitoring Strategy, Attachment 4 to the amendment, describes the expected management approach to implement these standards.

Key Differences Between the Bi-state DPS and Greater Gage-grouse Decisions

Sagebrush Focal Areas

The final Greater Sage-grouse (GSG) ROD identifies sagebrush focal areas as "strongholds" for GSG that have been noted as having the highest population densities and other criteria important for the persistence of the species. Standards and guidelines were developed to ensure that sagebrush focal areas are conserved and enhanced so that habitat condition would improve and expand over time.

Sagebrush focal areas are not identified in the bi-state DPS ROD. All bi-state habitat is crucial for the persistence of the bi-state distinct population segment. The habitat is relatively small, and fragmented, so bi-state sage-grouse travel great distances to find suitable habitat to mate, nest,

conduct brood rearing, and over winter. As a result, all habitat, even habitat peripherally associated with the life cycle of the species, is considered and managed as high value habitat.

Mineral Withdrawal

The GSG ROD states that the U.S. Forest Service will recommend to the Secretary of the Interior that portions of sagebrush focal areas be withdrawn from locatable mineral entry under the General Mining Act of 1872. This is because the U.S. Fish and Wildlife Service identified habitat disturbance and fragmentation caused by certain hard rock mining operations as threats to GSG habitat across its range.

The draft bi-state DPS ROD does not include a proposal to withdraw areas from locatable mineral entry. Hard rock mining operations do not occur in the bi-state habitat at the same scope or scale that is present in greater sage-grouse habitat. While some exploration may occur, it is a relatively minor disturbance that can be mitigated through seasonal restrictions and habitat restoration efforts.

Anthropogenic Disturbance Caps

The final GSG ROD applies an anthropogenic disturbance cap of three percent at the biologically significant unit (BSU) and proposed project area scale in priority habitat management areas and sagebrush focal areas. The standard GRSG-GEN-ST-004 states that discretionary activities that might result in disturbance above three percent at the BSU and proposed project area would be prohibited, unless certain exceptions are met.

The bi-state DPS ROD applies a three percent anthropogenic disturbance cap to habitat within 4.7 miles of active and pending leks. The 4.7 mile buffer standard was adopted based on current scientific literature that finds that more than 95 percent of BSSG activity occurs within a 7.5 kilometer (4.7 mi) buffer around leks.

Vegetation Objectives

The GSG ROD's vegetation objectives specify a 7" perennial grass height guideline for concealment during nesting and early brood rearing.

Peer-reviewed science specific to the bi-state DPS habitat indicates that perennial grass height is less important than sufficient shrub coverage for nesting and early brood rearing. Therefore, vegetation objectives for the bi-state DPS specify adequate lateral and overhead cover rather than a specific grass height for that season.

Status of Consultation with the US Fish and Wildlife Service (USFWS) for Terrestrial Wildlife Species

The USFWS is contacted every 90 days to obtain a current list of threatened, endangered, proposed, and candidate species and proposed or designated critical habitat that may be affected by activities in the Humboldt-Toiyabe National Forest. These lists are obtained through the USFWS Information for Planning and Conservation (IPaC) system. The IPaC system generates lists which address all potential listed species and habitats on the Bridgeport and Carson Ranger Districts. The most recent lists were reported on May 24, 2016.

Consultation with the USFWS is not needed for this plan amendment. No federally listed threatened, endangered, proposed, or candidate terrestrial wildlife species or their proposed or designated critical habitats would be affected by the amendment. A determination of no effect applies to the following species due to either the amendment area being outside the species

range, a lack of suitable habitat, or lack of potential effects from the project to the species or its habitats: Sierra Nevada yellow-legged frog, Yosemite toad, western yellow-billed cuckoo, Sierra Nevada bighorn sheep and Weber Ivesia.

V. Rationale for Decision

My decision provides the overall guidance to manage the sagebrush ecosystem for the long-term persistence of the bi-state DPS in their current and future habitat. This decision is based on the best available scientific information as presented in the FEIS and displayed in the project record.

In selecting a course of action for the bi-state DPS Forest Plan Amendment, I have determined that my decision is consistent with all laws, regulations, and agency policy. I have considered the potential direct, indirect, and cumulative effects and reasonably foreseeable activities. I have also considered the potential effects to all the issues identified in the final EIS and the potential for irreversible and irretrievable commitment of resources in the amendment area.

My decision provides the opportunity for the best balance of management activities to respond to the purpose and need, issues, and public comments. My decision seeks to balance interests of the public at large and those with special interests in the resources of the area while providing standards and guidelines that will conserve, enhance, or restore sagebrush and associated habitats for the long-term viability of the bi-state DPS. These interests include managing future forest activities to provide sustainable habitat conditions, while continuing to provide for recreation and access opportunities, livestock grazing opportunities, access to locatable mineral resources, development of renewable energy resources, and active habitat restoration efforts on NFS lands in accordance with the Multiple-Use Sustained Yield Act, the National Forest Management Act, and the Toiyabe LRMP. While meeting these interests, the decision provides methods to achieve resilient and resistant ecosystems, and improve bi-state DPS habitat.

Throughout this process I have considered and been continually amazed by the work that the community and all of the agencies involved have put into the protection of this species. The Bi-state Local Area Working Group has been helping the agencies and private landowners preserve habitat for years. They helped define the population management units back in the early 2000s. They organized and participated in work days to improve habitat. They have held together all of this time with common cause to help understand the species. Individual members have taken steps on their private property to improve habitat and they have helped their neighbors to do the same. Their combined efforts have done so much for the continued existence of the species that I cannot thank them enough. It is my desire that this spirit of cooperation among the Local Area Working Group and the multitude of agencies continues and that we all continue to work together to support the bi-state DPS. This decision is not the end of the effort to protect the species. It is but a small step that the Forest is taking to help guide future decisions on NFS lands that will help conserve, enhance, and restore bi-state DPS habitat.

My criteria for making a decision on this project were based on the documentation in the final EIS and its project record, based on the comments received during the three public opportunities to comment on the project, project initiation, draft EIS and revised draft EIS. It is as a result of the comments on the draft EIS that we extended the draft EIS comment period, and a result of those extensions that we revised the draft EIS to include an alternative to the proposed action that included stronger standards and guidelines regarding the authorization of discretionary actions on NFS lands. The addition of that alternative allowed me to see the potential effects of prohibiting many types of activities across all bi-state DPS habitat on the National Forest and compare that with the proposed action.

The approved amendment meets the purpose and need by providing management direction that limits potential effects from site specific projects or activities in bi-state DPS habitat. The desired conditions, goals, objectives, standards and guidelines in the approved amendment increase the regulatory certainty and reduce the former amount of implementation flexibility that the USFWS described in their 2010 finding. Standards and guidelines have been developed to provide direction for many of the potential activities that can occur in the habitat. The standards and guidelines in this decision limit the discretion a line officer has when it comes to the authorization of site specific projects, but they do not eliminate discretion. These standards and guidelines are intended to reduce the disturbances occurring in the habitat, and for the disturbances that do occur, there are limits to the duration, timing, and location of activities to best protect the bi-state DPS during all of its life stages.

As projects/activities are proposed the forest will determine if the proposal is consistent with the forest plan (as amended). When a proposed project is found to be inconsistent with the management direction in the plan the responsible official will consider several outcomes:

- Whether or not to analyze the proposal further;
- If the project proposal can be modified so that it is consistent with the plan direction;
- If there are valid existing rights which influence the Forests evaluation of the proposal;
- Alternatives to the proposed action that are consistent with the plan; and
- If the preparation of a site specific Forest Plan Amendment is warranted to authorize the proposal.

As an example, a request to construct a communication tower in bi-state habitat for private use may not be approved because it may be inconsistent with the standard: AA-S-08 “Subject to valid existing rights, do not install tall structures that could serve as avian predatory perches or decrease the use of an area within 4 miles of an active or pending lek”. If the proposal was for a communication tower needed to improve cellular communications improving health and safety of the public the forest may analyze the proposal following the NEPA process. During that process alternatives to the proposed action would be identified for meeting the need of the project without impacting sage grouse habitat, or mitigation measures would be identified to limit habitat disturbance or to offset the disturbance caused by constructing the tower. The NEPA documentation would also describe how, if the proposed action is approved, there would be a need for a site specific forest plan amendment; otherwise, authorizing a tall structure in habitat would be inconsistent with plan direction.

As the plan amendment, described in this ROD, does not make activity/project specific decisions, all future activity/project proposals within the FS authority will be considered and, if carried forward, analyzed for consistency with the Forest Plan as well as any potential environmental effects. Potential inconsistencies with the plan direction do not automatically mean a project could not be authorized; however, if a proposal is inconsistent with the plan, a plan amendment would be needed before such an activity/proposal could be approved.

For project proposals involving valid existing rights, the line officer will work with the project proponent to consider all feasible options to avoid, minimize, or compensate for potential impacts to bi-state DPS habitat, including voluntary mitigation. If the line officer has no other option than to allow disturbance in the habitat because of valid existing rights, the line officer

may be required to prepare a project-specific Forest Plan amendment that would only apply to the proposal in question. Before doing so, they will need to have exhausted all other possibilities and documented how they did so in the site-specific NEPA analysis.

The Forest Plan (as amended) is not the final decision for proposed actions: it is the beginning point from which the Forests NEPA analysis of a proposed action begins. Authorizing projects/activities that are inconsistent with standards will require a Forest Plan amendment and a very strong rationale made to support the authorization. Authorizing projects/activities that are inconsistent with guidelines will require either a determination, supported by analysis, that the intent for the guideline can still be met; otherwise, the approval of such an action will require a Forest Plan amendment and again a very strong rationale made to support the authorization. The "no permanent net loss of habitat due to project disturbance" standard (AA-S-06) would assure that the conservation and protection of habitat is foremost during the plan consistency review, project design, NEPA analysis and decision making process for both discretionary and non-discretionary site-specific projects and activities.

In deciding between the specific standards or guidelines of alternatives B and C, I have chosen to include in the amendment those standards or guidelines that provide the greater assurance of protecting habitat and reducing threats, as described in the FEIS (Table 2-5), to meet the bi-state DPS conservation purpose of the amendment. The rationale for my selections is as follows:

1. I have decided to include standards and guidelines that prohibit projects or activities that, by their nature, would not be able to avoid adverse effects to habitat, because conserving habitat is a purpose of the amendment.
2. I have decided in favor of guidelines or standards that allow projects or activities that may have potential to cause disturbance or create a threat if they can be designed so as not to cause the disturbance. The applicability of the guideline or standard would be analyzed in the appropriate project-specific or activity-specific NEPA analysis.
3. I have decided in favor of standards or guidelines for projects or activities that provide more specificity about the disturbance or threat being addressed, because this will make the amendment more effective for subsequent project or activity design and will allow the Forest to allow the project or activity when no disturbance or threat would occur.
4. I have included standards and guidelines that provide for the enhancement or active restoration of habitat to meet the desired habitat conditions.
5. Because most of my selections are from alternative B, when alternative B and alternative C are the same, my selection is denoted as alternative B.

Table ROD-1 identifies which rationale was applied. Additional explanation is provided where I feel it is needed or when the rationale is other than the above.

Table ROD-1. Standards and guidelines

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
All Activities	**AA-S-01:** Project proposals shall include best management practices (BMPs) for each resource as appropriate to restore, conserve, and enhance bi-state DPS and its habitat.	**B-S-01:** Rationale 4. BMPs are important tools for implementing the standards and guidelines in this amendment. I also want to allow flexibility to adopt and implement new BMPs as they come on line.
	AA-S-02: Total anthropogenic disturbances shall affect no more than 3% of the total bi-state DPS habitat within 4.7 mile of active and pending leks in the Bodie / Mount Grant, Desert Creek/Fales, and White Mountains population management unit boundaries. See definition of Anthropogenic Disturbance in glossary.	**C-Wild-S-04:** Rationale 3.
	AA-S-03: Total anthropogenic disturbances shall affect no more than 1.5% of the total bi-state DPS habitat within 4.7 miles of active and pending leks in the Pine Nut Mountains Population Management Unit boundaries.	**C-Wild-S-05:** Rationale 3.
	AA-S-04: Habitat restoration projects shall meet one or more of the following habitat needs: Promote the maintenance of large, intact sagebrush communities; limit the expansion or dominance of invasive species, including cheatgrass; maintain or improve soil site stability, hydrologic function, and biological integrity; and enhance the native plant community.	**B-Wild-S-03:** Rationale 4.
	AA-S-05: Subject to valid existing rights, require buffers, timing limitations, or offsite habitat restoration for new or renewed disturbance actions to mitigate potential long term impacts.	**B-Wild-S-06:** Rationale 2.
	AA-S-06: Require site-specific project mitigation to insure no permanent net loss of habitat due to project disturbance.	**C-Wild-S-03:** Rationale 4.
	AA-S-07: After severe soil disturbances or seeding, the land shall not be returned to soil-disturbing authorized uses for a minimum of three annual growing cycles or until desired habitat conditions and project objectives have been met, whichever is longer.	**B-Wild-S-07:** Rationale 2 and 4.
	AA-S-08: Subject to valid and existing rights, do not install tall structures that could serve as predator perches or decrease the use of an area within 4 miles of an active or pending lek.	**C-LUSU-S-04:** Rationale 1.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	AA-S-09: Do not authorize/install new fences unless necessary for safety or environmental protection reasons. If fences must be installed, they should be at least 1.2 miles from active and pending leks, and, should be let-down fences when not needed for the purpose of their installation.	**B-Min-S-13:** Rationale 2 and 5. **B-RI-G-01:** Rationale 2.
	AA-S-10: To reduce bi-state sage grouse mortality, remove, modify, or mark fences in sage grouse habitat based on nearest proximity to lek, lek size, and topography where fence densities exceed 1.6 miles of fence per section (640 acres).	**B-RI-S-04:** Rationale 2.
	AA-S-11: During project implementation limit offsite noise to less than 10 decibels (dbA) above ambient measures from 2 hours before until 2 hours after sunrise at the perimeter of a lek (0.25 mile buffer around lek point) during active breeding/nesting season.	**B-Min-S-01:** Rationale 2 and 5.
	AA-G-01-Subject to valid and existing rights, remove tall structures in bi-state DPS habitat within 4 miles of active of pending lek that could serve as predator perches or decrease the use of an area.	**B-RI-S-01:** Rationale 2.
	AA-G-02: When re-seeding use genetically and climatically appropriate and certified weed-free plant and seed material. Use locally collected native perennial grass and forb seeds when available. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.	**B-Wild-G-02:** Rationale 2 and 4.
Access/ Recreation	**AR-S-01:** Authorize new roads only when necessary for public safety, administrative, or public need to accommodate valid existing rights and to minimize disturbance footprint of ROWs in bi-state habitat.	**B-AR-G-02:** Rationale 4)
	AR-S-02: Between March 1 and June 30, off-highway vehicle events that pass within 4 miles of an active or pending lek shall not be authorized. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity.	**B-AR-S-03:** Rationale 1.
	AR-S-03: Do not authorize off-highway vehicle events within winter habitats November 1 to March 1.	**B-AR-S-04:** Rationale 3.
	AR-S-04: Prohibit new recreation facilities in bi-state DPS habitat (e.g., campgrounds, day use areas, scenic pullouts, trailheads, etc.).	**C-AR-S-04:** Rationale 1.
	AR-G-01: Use existing roads and co-locate powerlines, pipelines, and other linear features to reduce disturbance and habitat fragmentation and to minimize disturbance footprint of rights-of-way (ROWs) in bi-state habitat.	**B-AR-G-01:** Rationale 3**.**
Land Use/Special Use	**LUSU-S-01:** Do not grant new ROWs. If valid existing rights apply, co-locate new ROWs within existing ROWs or where it minimizes impacts to bi-state DPS habitat.	**C-LUSU-S-01:** Rationale 1 and 2.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	LUSU-S-02: When informed that a ROW is no longer in use, relinquish the ROW and reclaim the site by removing powerlines, reclaiming roads, and removing other infrastructure within bi-state DPS habitat, where such reclamation work does not create adverse effects.	**B-LUSU-S-06:** Rationale 4 and 5.
	LUSU-S-03: Do not authorize utility-scale commercial wind energy facilities.	**C-LUSU-S-02:** Rationale 1.
	LUSU-S-04: Do not authorize utility-scale solar energy facilities.	**C-LUSU-S-03:** Rationale 1.
	LUSU-G-02 Industrial wind facilities associated (on site) with existing industrial infrastructure (e.g., a mine site) may be authorized to provide onsite power generation and to minimize disturbance footprint of ROWs in bi-state habitat.	**B-LUSU-G-02:** Rationale 3
	LUSU-G-03: Industrial solar energy facilities (on site) associated with existing industrial infrastructure (e.g., a mine site) may be authorized to provide on-site power generation and minimize the disturbance footprint related to powerlines in habitat.	**B-LUSU-G-03:** Rationale 3
	LUSU-G-04: Where feasible, bury powerlines to reduce overhead perches for avian predators.	**B-LUSU-G-06:** Rationale 2.
	LUSU-S-05: Require permit holders to retro-fit existing powerlines and other utility structures within 4 miles of an active or pending lek with perch-deterring devices during ROW renewal process. The intent is to reduce perch opportunities for avian predators.	**B-LUSU-G-04:** Rationale 3 and 5.
	LUSU-S-06: Federal lands shall be retained unless a public interest determination identifies a net benefit to bi-state DPS habitat.	**B-LUSU-S-03:** Rationale 4.
	LUSU-S-07: Land acquisition plan shall include all inholdings that include bi-state DPS habitat within national forest system boundaries.	**B-LUSU-S-05:** Rationale 4 and 5.
	LUSU-S-08: Do not authorize outfitter-guide activities in bi-state habitat that occur within 4 miles of active leks from March 1 to June 30. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity.	**C-LUSU-S-05: Rational 1**
	LUSU-S-09: Require proper containment and prompt removal of refuse to avoid attracting predators/scavengers.	**B-LUSU-S-07:** Rationale 3.
	LUSU-S-10: Do not authorize new high-power (120 kV) transmission line corridors, transmission line ROWs, transmission line construction, or transmission line facility construction in habitat outside existing corridors.	**C-Min-S-09:** Rationale 1.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
Wildlife	**Wild-S-01:** Any vegetation treatment shall maintain, improve, or restore bi-state DPS habitat.	**B-Wild-S-01:** Rationale 4 and 5.
	Wild-S-02: Vegetation treatments and post-disturbance restoration shall seed and/or transplant sagebrush to restore large patches of sagebrush cover and connect existing patches.	**C-Wild-S-02:** Rationale 4.
	Wild-S-03: Time implementation of habitat restoration projects so that impacts to bi-state sage grouse individuals and populations are limited by duration, scope, and scale.	***B-Wild-S-04**: Rationale 4.
	Wild-G-01: Remove phase 1 and 2 pinyon-juniper located in habitat during habitat restoration projects with the intent to maintain sagebrush habitat prior to establishment of forest species.	**C-Wild-G-03:** Rationale 4.
Range: Permitting	**RP-S-01:** Grazing permits, annual operating instructions, or other appropriate mechanism for livestock management shall include terms, conditions, and direction to move toward or maintain bi-state DPS habitat desired conditions.	**B-RP-S-01:** Rationale 2 and 4.
	RP-G-01: In bi-state DPS habitat, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as consistent with maintaining sage-grouse habitat based on desired conditions as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired bi-state DPS habitat conditions (table 1a or 1b).	**B-RP-G-01:** Rationale 4.
Range: Utilization Standards	**RU-S-01:** Manage livestock grazing to maintain residual cover of herbaceous vegetation so as to reduce predation during breeding/nesting season (March 1 to June 30 critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity).	**B-RU-S-01:** Rationale 2 and 4.

<table>
<tr><th></th><th>Selected Standards and Guidelines</th><th>Original Number from FEIS and Decision/Rationale</th></tr>
<tr><td></td><td>RU-S-02: Manage livestock grazing in accordance with the utilization standards in this table.
<table>
<tr><th>Community Type</th><th>Percent Utilization of Key Species</th><th>Terms and Conditions</th></tr>
<tr><td>Mountain Big Sagebrush</td><td><45% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Wyoming and Basin Big Sagebrush</td><td><35% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Black Sagebrush</td><td><35% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Riparian and Wet Meadows</td><td><50% herbaceous species;
<35% woody species (current year’s growth); or
average stubble height of at least 4–6 inches (depending on site capability and potential) for herbaceous riparian vegetation</td><td>Average stubble height 4–6 inches:
Livestock removed in 5 days of reaching utilization level based on site; or (sequential action) no grazing from May 15–August 30 in brood-rearing habitat</td></tr>
</table></td><td>B-RU-S-02: Rationale 2.</td></tr>
<tr><td rowspan="2">Range: Improvements (All)</td><td>RI-S-01: Any new structural range improvements and location of supplements (salt or protein blocks) shall not retard the conservation, enhancement, or restoration of bi-state DPS habitat.</td><td>B-RI-S-02: Rationale 2.</td></tr>
<tr><td>RI-S-02: Salting or supplemental feeding stations shall not be located within 2 miles of an active lek and 0.6 miles from riparian areas.</td><td>B-RI-S-09: Rationale 2.</td></tr>
<tr><td rowspan="3">Range: Improvements (Water)</td><td>RI-S-03: Water developments (tanks/troughs) shall be drained when not in use, unless they are needed by other species, so they do not create a breeding habitat for mosquitos that carry diseases such as West Nile Virus.</td><td>B-RI-S-05: Rationale 2 and 5.</td></tr>
<tr><td>RI-S-04: Wildlife escape ramps shall be installed and maintained in water troughs or open water facilities with vertical embankments that pose a drowning risk to birds.</td><td>B-RI-S-06: Rationale 2 and 5.</td></tr>
<tr><td>RI-S-05: Water developments at springs and seeps shall be maintained to preserve the continuity of predevelopment riparian areas. Modifications to the developments shall be neutral or beneficial to the bi-state DPS.</td><td>B-RI-S-07: Rationale 2, 4, and 5.</td></tr>
</table>

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	RI-S-06: Livestock watering and handling facilities (corrals, chutes, dipping vats, etc.) or sheep bedding grounds shall not be located within 2 miles of an active lek and 0.6 miles from riparian areas.	**B-RI-S-08:** Rationale 2.
	RI-G-01: Authorize new water development for diversion from spring or seep source only when habitat would benefit from the development. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.	**B-RI-G-02:** Rationale 2 and 5.
Weeds	**Weed-S01:** Treatment methodologies are based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance: (1) use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals, and (2) treat areas in early- to mid-phase pinyon-juniper expansion.	**C-Weed-S02:** Rationale 4.
	Weed-S-02: Use pesticides/herbicides only outside of the critical disturbance periods and only if other integrated pest management approaches are inadequate or infeasible. Only use chemicals with the lowest toxicity to birds that still provide control in coordination with USDA or APHIS, depending of the targeted pest.	**B-Weed-S-02:** Rationale 4 and 5**.**
	Weed-S-03: Agency personnel, contractors, and permit holders working in areas with known weed infestations shall clean vehicles of dirt, mud, and visible plant debris before entering a different area to reduce the spread of noxious weeds.	**B-Weed-S-03:** Rationale 3 and 5.
	Weed-S0-4: Annual invasive grasses shall be controlled or suppressed using an integrated strategy.	**C-Weed-S03:** Rationale 4.
	Weed-G-01: Grazing may be used to target removal of cheatgrass or other vegetation hindering bi-state sage grouse objectives where monocultures occur to reduce risk of fire and achieve or move toward desired habitat conditions. Sheep, goats, or cattle may be used as long as the animals are intensely managed and removed when incidental utilization of desirable species reaches 25%.	**B-Weed G-01:** Rationale 4 and 5. There is conflicting research related to the effectiveness of the use of livestock to treat cheatgrass. This guideline is intended to allow the use of livestock to treat cheatgrass and other vegetation (including noxious weeds). Site-specific NEPA analysis would be required prior to implementation of any treatment activities.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	Weed-G-02: Require aggressive treatment of new weed or annual grass infestation form any surface-disturbing or other activity that is likely to cause or promote the introduction or infestation to control the potential spread of noxious and invasive annual grass species.	**C-Weed-G-01:** Rationale 4.
Wild Horse/ Burro	**WHB-S-01:** Appropriate management levels in territories and herd management areas with habitat shall be based on the structure, condition, and composition of vegetation needed to achieve bi-state DPS habitat objectives.	**B-WHB-S-01:** Rationale 2 and 5.
Minerals General	**MG-S-01:** Apply timing restrictions between March 1 and June 30 within 4 miles of active or pending leks to avoid construction, drilling, completion, geophysical explorations, and reclamation activities, including those of exploratory wildcat wells. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity	**B-Min-S-03:** Rationale 2 and 5.
	MG-S-02: In connective area, maintain vegetation characteristics suitable to bi-state DPS to the extent technically feasible.	**C-Min-S-01:** Rationale 3.
	Min-S-03: Control fugitive dust on roads and pads.	**C-Min-S-02:** Rationale 1.
	MG-S-04: Require a full reclamation bond specific to the site. Insure bonds are sufficient for costs relative to reclamation that would result in full restoration in habitat.	**B-Min-S-04:** Rationale 2 and 5.
	MG-S-05: Use areas with prior disturbance to site infrastructure.	**C-Min-S-03:** Rationale 1 and 2.
	MG-S-06: Camps for workers shall be located outside habitat.	**B-Min-S-06:** Rationale 2 and 5.
	MG-G-01: On current/existing leases concentrate disturbance/facilities to reduce spatial impact to habitat. The intent of the guideline is to minimize disturbance footprint wherever possible.	**B-Min-G-01:** Rationale 3 and 5.
Fluid Minerals	**MF-S-01:** For fluid minerals do not consent to leasing in bi-state DPS habitat unless only under no-surface-occupancy without exceptions, modifications or waivers.	*C-Min-S-04
	MF-S-02: Between November 1 and June 30, seismic and geophysical exploration within 4 miles of an active or pending lek shall not be authorized. During other times apply the least invasive seismic and geophysical exploratory methods in habitat. Critical disturbance period the June 30 dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity	**B-Min-S-09:** Rationale 2. **B-Min-S-07:** Rational 1-5
	MF-S-03: All commercial pipelines shall be buried where possible.	**C-Min-S-5:** Rationale 2.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	MF-S-04: Upon expiration or termination of existing leases in bi-state DPS habitat, do not consent to leasing.	**C-Min-S-06:** Rationale 1**.**
	MF-S-05: Require reclamation of disturbed areas to move toward desired conditions for habitat when facilities are no longer needed or leases are relinquished.	**B-Min-S-10:** Rationale 2 and 5.
	MF-S-06: Use closed-loop systems for drilling operations, with no reserve pits when technically feasible.	**C-Min-S-07:** Rationale 2.
	MF-S-07: Use noise shields when drilling during the breeding, nesting, brood-rearing, and wintering seasons.	**C-Min-S-08:** Rationale 2.
	MF-S-08: Do not authorize new compressor stations inside habitats.	**C-Min-S-10:** Rationale 1.
	MF-G-01: Allow geophysical exploration to obtain exploratory information for areas outside of and adjacent to habitat to provide continued opportunities outside that would not disturb bi-state DPS habitat.	**B-Min-G-06:** Rationale 3. This would require adherence to B-Min-S-01 as well as other applicable standards and guidelines.
	MF-G-02: Limit disturbances to an average of one site per 640 acres on average, subject to valid existing rights. The intent of the guideline is to minimize disturbance footprint wherever possible.	**B-Min_G-05:** Rational 3
	MF-G-03: Incorporate mitigation to offset all proposed surface disturbance that would result in loss of habitat. Mitigate first within the same population area where the disturbance is realized, and if not possible, within an adjacent habitat. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.	**B-Min-G-07:** Rationale 2 and 5.
	MF-G-04: If the lease is entirely within the habitat, any development should be placed in an area that would be the least harmful to bi-state sage grouse, primarily through limiting ground disturbance to minimize the disturbance footprint in habitat.	**B-Min-G-08:** Rationale 2 and 5.
Solid Leasable Minerals	**MS-S-01:** Do not consent to solid mineral lease in habitat.	**C-Min-S-011:** Rationale 1**.**
	MS-S-02: Request that the BLM not issue permits for solid leasable mineral prospecting or mining in habitat.	**C-Min-S-12:** Rationale 1.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
	MS-G-01: If new mine facilities must be placed in habitat, then co-locate facilities in existing disturbed areas and authorize them to the minimum size necessary to reduce the disturbance footprint in habitat.	**B-Min-G-14:** Rationale 2 and 5.
Mineral Materials	**MM-S-01:** Do not authorize new pits or prospecting permits in bi-state DPS habitat.	**B-Min-S-15:** Rationale 1.
	MM-S-02: Authorize mineral material use and expansion of existing pits only with no unmitigated net loss of habitat.	**B-Min-S-16:** Rationale 2.
	MM-S-03: Permits for existing mineral material sites shall require an approved pit development operating plan that minimizes impacts to bi-state sage grouse and other resources.	**B-Min-S-17:** Rationale 2.
	MM-S-04: Any contract or permit for mineral material operations, except for disposals from community sites and common-use areas, shall include requirements for reclamation of the site to meet bi-state DPS habitat objectives.	**B-Min-S-18:** Rationale 2.
	MM-S-05 Ensure no net unmitigated loss at existing mineral material sites in habitat.	**B-Min-S-19:** Rationale 2.
	MM-S-06: Where the Federal government owns the surface, and the mineral estate is in non-Federal ownership, require an approved pit development plan.	**B-Min-S-20:** Rationale 2.
Locatable Minerals	**ML-S-01:** Mitigate long-term negative impacts in habitat from discretionary or nondiscretionary activities to the extent practicable.	**B-Min-S-21:** Rationale 2.
Fire Suppression	**FS-S-01:** Fires in moderate to low resilience and resistance sagebrush and wooded shrub-lands shall be suppressed to prevent an invasive annual grass-fire cycle.	**C-Fire-S-01:** Rationale 4.
	FS-G-01: Do not use fire as a management tool in areas where the risk of escaped fire could cause negative long-term impacts during wildfire situations.	**B-Fire-G-01:** Rationale 1.
	FS-G-02: In bi-state DPS habitat areas, prioritize suppression, immediately after life and property, to conserve the habitat during wildfire situations.	**B-Fire-G-02:** Rationale 5.
	FS-G-03: Suppress wildfire threatening unburned habitat contained within a broader burn perimeter.	**B-Fire-G-03:** Rationale 4.
Suppression in Wildland-urban Interface	**FS-G-05:** In bi-state DPS habitat areas, habitat meeting or moving towards desired condition will be prioritized immediately after direct threats to life and property; suppression in the Wildland-Urban Interface will be prioritized above habitat in order to protect life and property.	**B-Fire-G-04:** Rationale 4 and 5.

	Selected Standards and Guidelines	Original Number from FEIS and Decision/Rationale
Fuels Treatments in Sagebrush	**FT-S-01:** Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of bi-state DPS habitat and conserve habitat quality for the species.	**C-Fire-S-02:** Rationale 4.
	FT-S-02: Enhance and restore habitat while reducing the potential for severe wildfires in habitat.	**B-Fire-S-02:** Rationale 4 and 5.
	FT-G-01: Use fuel breaks and green strips to protect areas with >25% landscape sagebrush cover to provide protection for habitat that is moving toward or meeting desired condition.	**C-Fire-G-02**: Rationale 3 and 4.
	FT-G-02: Do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones, in areas where there is threat of cheatgrass invasion, or areas where the sagebrush cover would be reduced to less than 15% unless necessary to facilitate site preparation for restoration of Bi-State DPS habitat consistent with desired conditions..	**B-Fire-G-06:** Rationale 4 and 5.
	FS-G-03: Vegetation treatments should include fuel breaks to provide anchor points for wildland fire suppression to protect areas meeting or moving toward desired conditions	**C-Fire-G-01:** Rationale 2 and 4.
Prescribed Fire	**FP-S-01:** To reduce the risk of habitat loss related to management actions do not use fire as a management tool in areas where the risk of escaped fire could cause negative long-term impacts.	**B-Fire-S-09:** Rationale 1.
	FP-S-03: Annual invasive grasses shall be controlled or suppressed using an integrated strategy.	**C-Fire-S-03:** Rationale 4.
	FP-G-02: Manage post-treatment areas to increase perennial herbaceous species and minimize secondary weed invasion. The intent is to use fire only where it can do the most good and least harm to meet the purpose of the amendment and be consistent with Wild-S-01.	**C-Fire-G-04:** Rationale 4.

Environmental Consequences

This section compares the effects of the alternatives by the issues relevant to this decision as analyzed in chapter 3 of the final EIS, followed by discussion of the effects of the approved amendment. The issues are presented in the order of analysis. A more detailed description of the existing conditions and potential consequences to the environment from the proposed amendment and alternatives is included in chapter 3 of the final EIS.

Using the comments from the public and other agencies, the interdisciplinary team developed a list of issues to address. Issues are defined as a point of disagreement, debate, or dispute about the proposed action based upon the effects of that action.

The issues were addressed by one of more of the following: (1) developing an alternative to alter resource tradeoffs, (2) requiring mitigation to reduce impacts to a resource, and (3) disclosing and comparing the relative difference in resource effects between alternatives.

The following issues were identified during the scoping and comment periods for this project (these are addressed in chapter 3 of the EIS). The comparison that follows is paraphrased from chapter 3 of the final EIS).

Issue 1 Effects on the Management of Access to Federal Lands

Under alternative B effects are expected to be minor to recreation and lands special uses. Conflicts from seasonal or locational restrictions may arise. Timing limitations and area avoidance buffers applied in early spring should not impact the majority of users. Some individuals or businesses could experience inconveniences and occasional financial burdens in adopting the stipulations required. Under alternative C effects could range from minor to moderate depending on how invested an individual or business is in their proposal or existing event/development. Seasonal closures and buffers may result in a proposed activity being delayed until after the timing limitation. Individuals or businesses with inflexible dates and locations for conducting events or activities could be inconvenienced by the standards proposed. Under the No Action alternative there would be no change to current levels of access to NFS lands.

Public access on designated NFS roads and trails is not subject to the standards and guidelines in the decision. Under the approved amendment, limitations to access are limited to special-use authorizations. The standards and guidelines do limit the timing of special-use authorizations of activities that may occur during the breeding season (March 1–June 30, critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of lek activity) (AR-S-02). Standards and guidelines also limit the granting of rights-of-way across bi-state DPS habitat (LUSU-S-01) as subject to valid existing rights and the development of utility-scale solar and wind energy facilities in bi-state DPS habitat (LUSU-S-03 and (LUSU-S-04).

Issue 2 Effects on Multiple Use Activities and the Potential Resulting Economic Issues

There would be no change from current condition under the no-action alternative. The approved amendment would have mixed effects on the local economies by implementing the standards and guidelines from alternative B that allow some multiple use activities to continue as long as potential effects to bi-state DPS habitat are mitigated and by not implementing some of the more prohibitive standards and guidelines included in alternative C (C-RP-S-01, C-Min-S-13, C-Min-S-15) (FEIS Table 2-5). Under alternative B there would be a potential for adverse impacts due to application of standards and guidelines during site-specific NEPA. Alternative C would add

more restrictive standards and guidelines further limiting multiple use activities within bi-state DPS habitat.

Issue 3 Effects on the Management of Bi-state DPS Habitat and Wildlife Program on Federal Lands

Under the no-action alternative, potential threats to habitat remain unmitigated because of the lack of regulatory mechanisms. Alternative B increases protections for the bi-state DPS habitat and individuals and includes standards and guidelines that provide direction for habitat restoration and improvement projects. Alternative C provides many of the same standards and guidelines, but it also closes areas to livestock grazing, geothermal, wind and solar energy development, and large transmission corridors. By selecting a combination of standards and guidelines from alternatives B and C, I am providing for multiple-use activities to continue as long as they meet the sideboards created by the standards and guidelines. There are 14 standards and guidelines to address bi-state DPS habitat conservation, enhancement, and restoration. For instance, standard AA-S-06 as selected requires site-specific mitigation when needed to insure no permanent net loss of habitat due to project-related disturbance activities, and standard AA-S-04 requires that habitat restoration projects meet predefined habitat restoration needs. If a restoration project does not meet a need, then it should not be considered a bi-state DPS habitat improvement project. All other terrestrial and aquatic wildlife and rare plant species and habitat would continue to be managed per existing management direction and regulatory requirements.

Issue 4 Effects on the Management of Range and Grazing Programs on Federal Lands

When compared to the no-action alternative, alternative B would have more restrictive utilization standards that will lead to changes in grazing systems, increased herding, and shortened seasons of use. Implementation of the standards and guidelines will indirectly improve rangeland conditions, increase vegetation productivity, improve forage, and improve bi-state DPS habitat. Alternative C would close all grazing allotments in bi-state DPS habitat. Permitted AUMs (animal unit months) on the allotments would be eliminated. As a result of the closure in Alternative C construction and maintenance of range improvements would cease and existing range improvements would be removed or modified to eliminate/reduce impacts to the bi-state DPS and its habitat.

The approved amendment includes many standards and guidelines designed to improve bi-state DPS habitat conditions or reduce the potential impact of livestock grazing on bi-state DPS habitat. These include prohibiting the placement of salt, supplement, or feeding stations (RI-S-02), watering or handling facilities (RI-S-06) within 2 miles of an active or pending lek, or 0.6 miles of a riparian area, and the modification or removal of fences in bssg habitat where fence density exceed 1.6 miles of fence per section (AA-S-10). The approved amendment also includes the standard RI-S-01 that states that any new structural range improvements and locations of supplements (salt or protein blocks) shall not retard conservation, enhancement, or restoration of bi-state DPS habitat. Combined, the selected standards and guidelines will affect the range management program in the amendment area. While current condition of the allotments is generally good (final EIS, chapter 3, “Effects on the Management of Range and Grazing Programs on Federal Lands”), implementation of the approved amendment standards and guidelines will help move habitat toward the desired habitat condition.

Issue 5 Effects on the Management of Weeds Program on Federal Lands

Management of weeds under the No Action Alternative would continue to operate following the Forests Integrated weed management plan. Standards and guidelines presented in alternative B

are expected to improve the ability to control invasive weeds. Under alternative C, the same improvement would apply and additional standards and guidelines that emphasize the control and prevention of invasive weeds and non-native annual grasses, and additional limitations on land uses, would reduce the risk of spread and help prevent further loss of habitat.

The approved amendment enforces the importance of controlling noxious and invasive weeds in disturbed areas across the amendment area. It includes standard AA- S-07 that limits the return of authorized uses for 3 years or until the desired habitat conditions or project objectives have been met. I want to stress how important it is that the disturbed areas need to recover sufficiently before an authorized use that may impact vegetation cover or soils is allowed to resume.

The approved amendment includes standards and guidelines that allow for new or creative weed treatment methods (Weed-G-01). I want the ability to use tools when they are determined to be effective and when they become available. The selection of this guideline will allow us to adopt treatment options as they are identified. The approved amendment also requires aggressive treatment of new infestations (Weed-G-02) to control the potential spread of weeds. Selecting only alternative B or only alternative C would have limited our options for addressing the risk of noxious weeds.

Issue 6 Effects on the Management of Wild Horses and Burros on Federal Lands

The no-action alternative would not require the Forest Service to manage wild horse and burro populations any differently than at present. Managing for the bi-state DPS habitat desired conditions by adjusting wild horse and burro populations could occur in the Powell Mountain wild horse and burro territory under either alternative. Overtime this is expected to result in improved forage which would have a potentially beneficial impact on wild horses and burros. Under alternative C, the cessation of domestic livestock grazing in the allotments in habitat would eliminate competition for forage between livestock and wild horses and burros. Combined with the standard that would require herd levels to be based on the structure conditions and composition of vegetation needed to achieve bi-state DPS habitat objectives, the beneficial impacts to horses disclosed during the analysis under alternative B would still occur.

Issue 7 Effects on the Management of the Minerals Programs on Federal Lands

Alternative A would result in no change from the current condition. Timing limitations and buffers would be applied and few of the discretionary projects would be turned away to protect bi-state DPS habitat. Alternative B would have minor impacts on oil and gas exploration and production, but would have a much greater impact on geothermal exploration and production because of the no-surface-occupancy stipulations on lease blocks in habitat. Consequently, most geothermal exploration would likely take place outside of habitat. Solid leasable minerals would not be expected to be permitted in habitat, but existing gravel pits would continue. Locatable minerals project may experience delays resulting from the extended time needed to complete site-specific NEPA. It is difficult to determine the extent of the effect.

Due to the restrictions in alternative C, many of the operating solid-leasable-mineral mines, existing gravel pits, and exploration projects would continue operating for a while, but new discretionary project proposals in habitat would be significantly curtailed. Nondiscretionary activities would continue to be permitted in habitat. The alternative includes a standard that would petition to withdraw portions of habitat from locatable mineral activity. The process could take some time to complete and when finished would need to be reviewed every 20 years.

The approved amendment is consistent with the 1872 Mining Law that grants the right to reasonable access to public land to enter, explore, occupy, and use NFS lands that are open to entry in the search for and claiming of valuable mineral deposits. It also includes standards and guidelines that limit the timing and location of activities related to discretionary mineral (non-locatable) activities in bi-state DPS habitat. For fluid minerals (including geothermal) the approved amendment applies MF-S-01 that would only permit no-surface-occupancy lease stipulations without exception, modifications, or stipulations to any new leases in bi-state DPS habitat. For existing leases, new standards from the modified proposed action would be applied to limit bi-state habitat disturbance from noise, ground disturbance, and timing. Regardless of the proposed mineral activity, timing restrictions and buffers would be applied to mitigate disturbance to bi-state DPS habitat to the extent that valid existing rights allow.

Issue 8 Effects on the Management of Fire and Fuels Program Management on Federal Lands

There would be no changes to management under the no-action alternative. Under alternatives B and C, effects are expected to improve the protection of sagebrush ecosystems and reduce the threat of cheatgrass by focusing the use of prescribed fire in pre-identified areas based on zonal precipitation averages and minimum vegetation cover thresholds.

The approved amendment emphasizes suppression and protection of habitat where the risk of infestation and spread of noxious weeds and annual grasses is the highest. It protects unburned habitat and habitat that is moving toward desired conditions. For prescribed fire the approved amendment chooses the more restrictive standards and guidelines focusing on reducing threats to bi-state DPS habitat and the thoughtful use of fuel treatments to improve or protect habitat. I would like to clarify that there are many forms of fuel treatment that do not include the use of fire.

Avoidance and/or Mitigation of Environmental Harm

As this is a programmatic action that does not authorize any site-specific activity, there is no site-specific impact and, thus, no expectation of direct, indirect, or cumulative effects resulting in environmental harm. The approved amendment does include many standards and guidelines that will be applied during project- or activity-specific development and for site-specific analysis. During that level of project design and analysis, mitigations to avoid, minimize, reduce, rectify, or compensate for environmental harm will be developed and analyzed.

Short-term Use and Long-term Productivity

NEPA requires consideration of “the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity” (40 CFR 1502.16). As declared by Congress, this includes using all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans (NEPA Section 101). Discussion related to short-term uses and long-term productivity can be found in detail under individual resource discussions in the 2015 final EIS.

The approved amendment adopts desired habitat conditions, goals, objectives, and standards and guidelines to help direct future actions on NFS lands that may affect bi-state sage-grouse and its associated habitats. As such, there may be future proposed actions that result in implementation of ground-disturbing activities to meet habitat restoration objectives. Such ground-disturbing

activities would produce short-term effects to soil, water quality, and habitat, while providing the long-term benefits in terms of the restoration and conservation of bi-state DPS and its habitat.

Other actions are also subject to the standards and guidelines adopted in this amendment. Those actions may include elements that have had harmful effects on the bi-state DPS and its habitat in the past. The standards and guidelines being selected are designed to reduce those harmful effects. Requirements for a no net loss of habitat as a result of those future proposed actions will also mitigate any short-term disturbances or long-term impacts to the productivity (health) of the habitat.

Irreversible and Irretrievable Commitments

Irreversible commitments "describe the loss of future options." Irreversible "applies primarily to the effects of use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity that are renewable only over long periods of time" (FSH 1909.15, Zero Code, 05–Definitions). Once these resources are gone, they cannot be replaced.

Irretrievable commitments represent a loss of production or use of available natural resources resulting from a proposed action. For example some or all of the timber production from an area is lost irretrievably while the area is serving as a developed recreation site. The production lost is irretrievable; the action designating the site is not irreversible.

As set forth in Title 36 CFR section 219(b) (2), forest plans do not authorize projects or activities or commit the Forest Service to take action. As such, the approved amendment also does not authorize projects or activities or commit the Forest Service to take action. Because of the programmatic nature of the approved amendment, it will not result in irreversible or irretrievable actions or commitments.

VI. Public Involvement

Public participation helps the Forest Service identify concerns with possible effects of its proposals. It is also a means of disclosing the nature and consequences of actions proposed for NFS lands.

The Forest developed a list of public individuals, organizations, governments, and agencies that would likely be interested in the project. These included other landowners, advocacy and user-group organizations, county governments, Tribal governments, other Federal agencies, Nevada State agencies, grazing permittees, livestock industry groups, and local news media. We communicated with the public extensively during the EIS preparation. Highlights of this involvement are provided below.

The notice of intent to prepare an EIS was published in the *Federal Register* on November 30, 2012 (*Federal Register*, volume 77, number 231). The notice asked for public comment on the proposal to be received by January 30, 2013. In addition, a scoping letter was sent out to the public on November 30, 2012, describing the proposed action and asking for comments. This letter was sent out to approximately 200 organizations and individuals. The Agency also published a news release in the *Reno Gazette Journal* on December 6, 2012 (with a stop date of January 30, 2013). The release described the project and invited public comment. The agencies also hosted two public meetings. One was held on January 9, 2013, in Minden, Nevada, and the other on January 10, 2013, in Smith Valley, Nevada. A total of 15 people attended these meetings. Public notification of this proposed action was posted online from November 29, 2012, to January 30, 2013, at http://www.fs.fed.us/nepa/nepa_project_exp.php?project=40683.

The notice informed the public that the decision on the amendment would be subject to the objection procedures of 36 CFR 219 subpart B.

The notice of availability for the draft EIS for the Greater Sage-grouse Bi-state Distinct Population Segment Forest Plan Amendment was published in the *Federal Register* August 23, 2013. This publication started the 90-day formal comment period that ended November 20, 2013, and extended twice, ending January 17, 2014. In addition, public notification of this draft EIS was posted online from August 16, 2013, through the end of the extended comment period at http://www.fs.fed.us/nepa/nepa_project_exp.php?project=40683. Also, a news release was published in the *Reno Gazette Journal* starting August 16, 2013 (with an original stop date of November 20, 2013). With each extension (first extension from November 20 to December 27, 2013; and the second from December 27, 2013, to January 17, 2014) a news release notified the public and was published in the *Reno Gazette Journal*, as well as a notice of the comment period extension published in the *Federal Register* on December 27, 2013.

On March 21, 2014, Tony Wasley, Co-chairman of the Bi-state Executive Oversight Committee, sent a letter to Ren Lohoefener, Regional Director of the USFWS, requesting in part the USFWS provide an additional 6 months to analyze new information before making a final decision on the potential listing of the bi-state DPS. On March 31, 2014, the USFWS added 6 months beyond the original October 2014 deadline, which extended the new deadline to April 2015. With the additional information gathered during the twice-extended comment period, as well as the additional time provided by the USFWS, the decision was made to prepare a revised draft EIS. The intent of the revised draft EIS was to allow the Forest and BLM to analyze and present new information since the original draft EIS was published and provide this new information and analysis to public for formal comment.

The notice of availability for the revised draft EIS was published in the *Federal Register* on July 11, 2014, for another 90-day comment period. This comment period ended on October 9, 2014. A news release regarding the revised draft EIS availability to the public was published in the *Reno Gazette Journal* starting July 30, 2014, with a stop date of August 29, 2014. The FEIS and Draft Record of Decision were published on February 6, 2015. On that date the document was emailed to approximately 460 individuals and organization and hard copy documents were sent to another 30 individuals and organizations. A Notice of Availability for the FEIS was published in the federal Register on February 13, 2015. A Notice of Objection Filing Period was published in the Reno Gazette/Journal on February 6, 2015 initiating the 60 day objection period. The Objection period ended on April 7. 2015.

As stated in the 2012 NOI to amend the forest plan, the Humboldt-Toiyabe NF elected to follow the pre-decisional administrative review process (objections) outlined in 36 CFR 219. Seven objections meeting the objection filing requirements at 36 CFR 219.54(c) were considered by the reviewing officer. Also, eight requests from interested persons were received and granted. Comments received from one individual did not meet filing requirements but were forwarded to me and my staff for consideration while making this final decision.

After the initial review of the written objections received for the Draft ROD and final EIS, Reviewing Officer George C. Iverson decided to hold a series of meetings in Sparks Nevada and in Ogden Utah on May 8, 2015, May 19, 2015, and May 20, 2015, and July 30, 2015 to have additional engagement with objectors and interested persons on proposed remedies identified by the objectors. All of the objectors and interested persons participated in the meetings, either in person or by phone. All objectors participating in the meeting were given an opportunity to speak

on each of the issue they addressed in their objections. The interested persons participating in the meetings were allowed to ask questions and provide input.

The purpose of the meeting was not to re-state the contents of the objection letters or to bring forward information not previously submitted, but rather to focus on a discussion of the remedies under consideration specifically for the issues identified in the objection letters. During the meeting objectors helped to clarify understanding of the issues and suggested improvements to remedies proposed for consideration in the final response to objections. Interested persons provided additional thoughts.

The feedback received was very helpful for our consideration of the issues and potential remedies. The Objection resolutions letters concluding the objection process were signed by George Iverson on September 16, 2015. A second notice of availability of the FEIS was published in the Federal Register on October 30, 2015. All objections and the final agency response can be found on the project website at: http://www.fs.usda.gov/project/?project=40683.

VII. Alternatives Analyzed in Detail

Based on public comments, agency policy, the Toiyabe National Forest Land and Resource Management Plan (Forest Plan), and the Council on Environmental Quality regulations implementing NEPA, the interdisciplinary team developed three alternatives (including the proposed action) for detailed analysis.

Alternative A – No Action

Under the no-action alternative, current land use plans would continue to guide management of the amendment area which includes sensitive species direction (USDA Forest Service 1986as amended). No forest plan amendment would be approved for the purpose of conserving, enhancing, and/or restoring sagebrush and associated habitats to provide for the long-term viability of the bi-state DPS. The lands in the plan amendment area boundary that were transferred from the BLM to the Forest Service under the Nevada Enhancement Act would not be brought under management direction of the Toiyabe Forest Plan.

Alternative B – The Proposed Action

The proposed action was to amend the Toiyabe LRMP, by adding to or changing some of the regulatory mechanisms to reduce, eliminate, or minimize threats to bi-state DPS habitat on Federal lands administered under those plans. The regulatory mechanisms would apply to bi-state DPS habitat, described below, on NFS lands within the plan amendment area boundary.

This alternative applies to the lands within the plan amendment area boundary that were transferred under the Nevada Enhancement Act. With this amendment, those lands will now be under the management direction of the Toiyabe Forest Plan, with allocation to the Bridgeport Pinyon/Juniper Management Area #6 and as amended by this alternative.

The alternative includes the adoption of the desired habitat conditions as presented in (final EIS) Table 2-1, the dates used to evaluate impacts presented in Table 2-2, the goals and objectives presented in Table 2-3, and the standards and guidelines presented in Table 2-4 under the alternative B (modified) heading.

Alternative C – The Conservation Alternative

This alternative proposed goals, objectives, standards, and guidelines that address the purpose and need of this plan amendment by focusing on a more conservation-conservative approach to

land management than the proposed action by including more requirements for project design and establishing a more detailed schedule for accomplishments. This alternative allows for the analysis and disclosure of a range of methods to achieve the purpose and need of providing regulatory mechanisms to reduce, eliminate, or minimize threats to bi-state DPS habitat on Federal lands. The regulatory mechanisms would apply to bi-state DPS habitat, described below, on Forest Service- and BLM-administered lands within the plan amendment area boundary.

Alternative C also establishes the lands within the plan amendment area boundary that were transferred under the Nevada Enhancement Act as being under the management direction of the Toiyabe Forest Plan, with allocation to the Bridgeport Pinyon/Juniper Management Area #6 (see appendix B, final EIS, for map) and as amended by this alternative.

VIII. Alternatives Considered but Not Analyzed in Detail

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope to conserve, enhance, and/or restore habitat for the bi-state DPS; duplicative of the alternatives considered in detail; or determined to be components that would cause unnecessary environmental harm. Therefore, six alternatives were considered, but dismissed from detailed consideration for reasons summarized below.

1) An alternative was considered that would change all standards in the proposed amendment into guidelines. This alternative was not considered because of how the definitions and applications of standards and guidelines differ. A standard is defined as a course of action that must be followed, or a level of attainment that must be reached to achieve Forest goals. Adherence to standards is mandatory. In general, they limit project-related activities. *A project or activity that deviates from a standard may be approved only if a Forest Plan amendment to change the standard is approved that would result in the project or activity being consistent with the Forest Plan.* Standards are developed when: (1) applicable laws or policies do not exist, or clarification of existing laws or policies is needed; (2) they are critical to achievement of objectives; or (3) unacceptable impacts could occur if a standard is not in place.

In comparison, a guideline is also a course of action that must be followed. However, guidelines are applied to activities where site-specific factors may require some flexibility. *A project or activity that deviates from a guideline may be approved only if it is as effective in achieving the purpose for the guideline and documented in the appropriate approval document for the project or activity.*

Projects that are consistent with standards or guidelines would result in meeting the intent of the standard or guideline for conserving, enhancing, or restoring sagebrush and associated habitats to provide for the long-term viability of the bi-state DPS. However, the deciding officer would have flexibility in how the project is designed under a guideline as long as its purpose can be achieved, but there is no flexibility under a standard. As discussed in the "Rationale for the Decision," the need for the amendment was to address the USFWS 12-month finding, in which the USFWS expressed concern about the level of discretion that deciding officers have under the current land use plans in making decisions at the project level. A plan amendment that includes only guidelines and no standards would not address

this USFWS concern about the level of discretion and consistency of application, and therefore would not meet the purpose and need for the proposed amendment. Because of this, an amendment with only guidelines and no standards was not considered further or analyzed in detail.

2 & 3) Two alternatives were discussed involving the use of buffers. One would extend buffers for various conservation actions, and the other would limit/remove these buffers altogether. The original proposed amendment presented at the beginning of scoping had language about specific buffers for various potential actions. The standards and guidelines have since been rewritten to buffer habitat components instead of projects. By buffering habitat components the effects analysis becomes consistent across alternatives and is less speculative. Buffering projects would require a great deal of speculation in the analysis concerning the number, extent, and duration of different types of projects potentially occurring in the amendment area over time.

4) Several groups and individuals suggested in the public comments that the agencies no longer allow certain types of activities to occur within the amendment area. Based on these public scoping comments, the interdisciplinary team considered an alternative that would eliminate all discretionary actions within the amendment area. Discretionary actions are actions that the Forest Service is not required by law to consider. These include almost everything the agencies do, from the authorization of special-use permits to cross NFS lands, to planning and implementing projects to restore sagebrush habitat for the benefit of the bi-state DPS.

This alternative was discussed as a way to illustrate the trade-offs of not allowing any discretionary actions to occur within the amendment area. The current land use plans allow for various types of resource management and recreation. Forest Service and BLM are multiple-use agencies by definition. An alternative that would practically eliminate all of those activities, regardless of relationship to the conservation of the bi-state DPS, would be outside the scope and intent of the proposed amendment and would not meet the overall management goals and objectives for the amendment area. Also, such an alternative would not be consistent with our multiple use mandate.

While not as extreme as the no-discretionary action alternative described here, alternative C does adopt and analyze some of the elements that would be included here.

5) An alternative was considered as the “habitat exclusion” alternative. A geographically based alternative was discussed that would redraw the habitat map to exclude areas that have a high degree of ongoing activity. Areas that would have been excluded from habitat include developed mine sites, areas with intense mineral exploration activity, areas with high recreation use, and areas with potential for geothermal lease and development. This alterative would have removed those habitat areas from the protections the proposed action offered. This alternative was eliminated from detailed consideration because it would have resulted in fragmentation to the habitat and would not meet the purpose and need of this proposal to conserve, enhance, and/or restore sagebrush and associated habitats of the bi-state DPS, regardless of the habitat’s relative location to various human activities.

6) An alternative was considered that was for the Nevada Enhancement Act only. This alternative was the same as the no-action alternative, except for the application of Toiyabe Forest Plan general management direction and Bridgeport Pinyon/Juniper Management Area #6-specific direction to Enhancement Act lands in the amendment area. The regulatory

mechanisms for the conservation of bi-state DPS would not have been included in the amendment. Because for the same reason as provided for the no-action alternative, this alternative would not meet the purpose and need for this project. In addition, the analysis would have been redundant with the no-action alternative because the management direction would be the same as that of the no-action alternative. Therefore, this alternative was eliminated from detailed consideration.

IX. Environmentally Preferred Alternative

Alternative C is the environmentally preferred alternative, as defined in 36 CFR 220.3. Alternative C would prohibit many ongoing discretionary uses on NFS lands that would be allowed to continue under the proposed action and the no-action alternatives. Alternative C would prohibit leasing for fluid mineral, geothermal, or saleable minerals in bi-state DPS habitat and end livestock grazing on the allotments in the amendment area with bi-state DPS habitat. Cessation of these activities would result in fewer disturbances in habitat and result in less biological and physical harm when compared to alternatives A or B. For this reason, alternative C would best conserve, enhance, and restore sagebrush and associated habitats to provide for the long-term viability of the bi-state DPS.

I did not select alternative C because it is too restrictive. While it may result in a faster route to conservation of the habitat, it would adversely impact the livelihood of many people in the amendment area (final EIS, page 80). I have seen firsthand the good work that the Local Area Working Group and the multiple agencies have accomplished over the last 10 years to improve habitat. I have chosen to select an alternative that combines standards and guidelines from alternatives B and C that would conserve, enhance, and restore bi-state DPS habitat, but would also allow for continued multiple uses of the NFS lands in the amendment area.

X. Determination that the Amendment is Not Significant

It is my determination that the approved amendment is not significant based on the criteria in Forest Service Manual 1926.52 – Changes to the Land Management Plan that are Significant, as follows:

1. Changes that would significantly alter the long-term relationship between levels of multiple-use goods and services originally projected (see section 219.10(e) of the planning regulations in effect before November 9, 2000; see 36 CFR parts 200 to 299, revised as of July 1, 2000).

The amendment affects only the future projects and activities in the amendment area. The result of the amendment does not affect the multiple-use goods and services provided by the Forest Plan. It allows projects and activities that are currently allowed under the Toiyabe Forest Plan. Potential restriction of projects and activities may occur, but only to the extent that still provides for the multiple-use goods and services as projected in the Toiyabe Forest Plan. Therefore, the amendment does not alter the long-term relationship between levels of multiple-use goods and services originally projected in the Toiyabe Forest Plan.

2. Changes that may have an important effect on the entire land management plan or affect land and resources throughout a large portion of the planning area during the planning period.

The amendment is applicable only to the 967,878 acres of the amendment area which is a subset of the Carson and Bridgeport Range Districts. The amendment area represents about

15 percent of the acres managed under the Toiyabe Forest Plan. As such, the effect of the amendment is not important to the entire land management plan. This is not a large portion of the plan area.

XI. Findings Required by Other Laws and Regulations

Legislative and/or Regulatory

Endangered Species Act. Federally threatened or endangered species known to reside or nest in the amendment area will not be affected by adoption of the regulatory measures proposed in this record of decision. Consultation with the USFWS is not needed for this plan amendment. No federally listed threatened, endangered, proposed, or candidate terrestrial wildlife species or their proposed or designated critical habitats would be affected by the proposed action or alternatives. A determination of no effect applies to the following species due to either the amendment area being outside the species range, a lack of suitable habitat, or lack of potential effects from the project to the species or its habitats: Sierra Nevada yellow-legged frog, Yosemite toad, western yellow-billed cuckoo, Sierra Nevada bighorn sheep and Webber Ivesia.

National Historic Preservation Act. Cultural resource surveys have not been completed for this project. Nothing in this proposed action requires ground-disturbing activity that could impact historic properties located in the planning area. Consultation with the Nevada State historic preservation officer on potential effects to cultural resource will continue to be required for all site-specific project activities.

Clean Water Act. Nothing in this ROD will change or modify standards, guidelines, and direction contained in the Forest Plan, best management practices, and applicable Forest Service manual and handbook direction or LRMP relevant to management of water resources. Ongoing and future site-specific projects will adhere to these standards, guidelines, and direction, and by doing so will continue to be consistent with the Clean Water Act and amendments. No permits are required for any of the alternatives.

Clean Air Act. There are no emissions related to implementation of this record of decision. Implementation of the selected goals, objectives, and standards and guidelines will not result in exceedance of State of Nevada Ambient Air Quality Standards (46 FR 43141).

Executive Orders

Executive Order 11593 (Cultural Resources). The Executive order directs Federal agencies to provide leadership in preserving, restoring, and maintaining the historic and cultural environment of the Nation. This approved amendment will not impede the ability of the Forest Service to follow this direction.

Executive Order 11988 (Floodplains). The Executive order directs Federal agencies to take action to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains. A floodplain is defined as “the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of off shore islands, including at a minimum that area subject to a 1 percent or greater of flooding in any given year.” Forest Plan standards and guidelines identify floodplains as a process group within riparian management areas and provide direction to avoid development in these areas. The approved amendment does not propose occupation or modification of floodplains.

Executive Order 11990 (Wetlands). The Executive order requires Federal agencies to avoid, to the extent possible, the long-term and short-term adverse effects associated with the destruction or modification of wetlands. The approved amendment does not propose occupation or modification of wetlands.

Executive Order 12898 (Environmental Justice). The Executive order directs Federal agencies to identify and address the issue of environmental justice, which concerns adverse human health and environmental effects of agency programs that disproportionately affect minority and low-income populations. For the purpose of screening for environmental justice concerns, the widely dispersed area over which this management direction takes place makes it unlikely that any particular minority or low-income population in Alpine, Douglas, Esmeralda, Lyon, Mineral, or Mono counties is disproportionately impacted. Implementation of the proposed action or alternatives for the bi-state DPS approved amendment will not cause adverse health, social, or environmental effects that would disproportionately affect minority and low-income populations.

Executive Order 13007 (American Indian Sacred Sites). The Executive order directs Federal agencies to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. Under the approved amendment the Forest Service will continue to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites.

Executive Order 13186 (Migratory Birds). The Executive order directs Federal agencies taking actions having or likely to have a negative impact on migratory bird populations to work with the USFWS to develop an agreement to conserve migratory birds. Because of the programmatic nature of the approved amendment, there will be no negative impacts on migratory bird populations.

Effects on Prime Farm Land, Range Land, and Forest land

No prime farm land or range land would be adversely affected by the approved amendment. Forestland would maintain its long-term productivity.

Effects on Civil Rights, Women, and Minorities

This approved amendment would not have adverse effects on civil rights, women, or minorities.

XII. Pre-decisional Administrative Review Process (Objection Process)

The Plan Amendment and the draft ROD were subject to review and objection pursuant to 36 CFR 219 regulations. More than 60 individual issues were identified from the seven objections received and each was considered in the review conducted by the reviewing officer. The review focused on ensuring the Plan Amendment meets current requirements and to determine whether changes are warranted to improve upon the analysis and decision based on the objections submitted.

The issues covered a range of resources and topic areas, including mineral resources, fire management, habitat restorations, limiting disturbance in bi-state DPS habitat, and monitoring. Objectors were concerned that the draft ROD did not appropriately address public interests and violated the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), and the Endangered Species Act (ESA), among others.

After a deliberative and extensive review of concerns raised by objectors involving complex regulatory and management issues, the reviewing officer responded to all the objectors in writing on September 16, 2015. He provided me with specific instructions, which I have complied with as this ROD was being prepared and as displayed in the FEIS. .

XIII. Implementation Date

Under title 36 CFR 219.17(a)(2), the approved plan amendment will be effective 30 days after the publication of the notice of this decision. The plan amendment will be inserted into the Forest Plan and distributed to all units for inclusion in their copies of the Forest Plan. After the effective date, all projects will be required to be consistent with this amendment.

XIV. Contact

For additional information concerning this decision, contact:

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William A. Dunkelberger
Forest Supervisor

5/16/2016
Date

Attachment 1.

Amendment 18 to the Toiyabe National Forest Land and Resource Management Plan

Amendment 18 to the Toiyabe National Forest Land and Resource Management Plan

In this amendment the Distinct Population Segment reference has been dropped from the plan components because "distinct population segment" is a taxonomic delineation identified by the Endangered Species Act and used by the US Fish and Wildlife Service during the Endangered Species Act listing process. Since the species was not listed the reference to the distinct population segment does not apply. Nothing in this name changes or diminishes the intent or application of the plan components in this amendment.

This amendment applies to all NFS lands managed under the Forest Plan in the bi-state sage-grouse habitat ("bi-state sage grouse habitat"), as identified on the "Bi-state Greater Sage-grouse habitat map" (attachment 2) of all seasonal and year-round bi-state sage grouse habitat plus all land within 7 kilometers (about 4 miles) of active leks.

The habitat map was created with modeling and aerial imagery, and is therefore subject to field-verification and updates as new information becomes available. The map will be updated as monitoring and mapping continues and following a NEPA sufficiency review. If the review indicates potential effects not previously disclosed, the appropriate NEPA and forest planning process will be followed before updating the map. Map data is archived

This amendment applies the general Forest direction and the management area # 6 management direction to approximately 258,336 acres of lands that were transferred from the BLM to the Forest Service under the Nevada Enhancement Act (Public Law 100-500, April 26, 1989), as displayed on attachment 3.

This amendment recognizes valid existing rights.

Add to page IV-7, MANAGEMENT GOALS AND DESIRED FUTURE CONDITION OF THE FOREST – WILDLIFE AND FISH – Desired Future Conditions – new paragraph 4

The following table defines the bi-state sage grouse desired habitat conditions.

Table 1. Desired future condition

Category	Desired Condition
	Rangeland health assessments are meeting all standards.
	Sagebrush communities are large and intact with >65% of the landscape in sagebrush cover (Aldridge and Boyce 2007).
	The extent and dominance of invasive species, including cheatgrass, is limited to <5% (Blomberg et al. 2012).
	For security of nesting there is <3% phase I (>0 to <25% cover), no phase II (25 to 50% cover), no phase III (>50% cover), within 0.53-mile (850 meter) buffer from center of data collection plot (Casazza et al. 2011; USGS in preparation (a)).
	For winter cover and food there is <5% phase I (>0 to <25% cover), no phase II (25 to 50% cover), no phase III (>50% cover) within 0.53-mile (850 meter) buffer from center of data collection plot (USGS in preparation (a)).
	For winter cover and food the extent of the sagebrush is as follows: >85% sagebrush land cover within 0.53-mile (850 meter) buffer from center of data collection plot (USGS in prep (a), Doherty et al. 2008).
Leks	There is adjacent sagebrush cover (Connelly et al. 2000; Blomberg et al. 2012).

Category	Desired Condition
	No structures taller than the surrounding vegetation community are within line-of-sight of the lek or within 4 miles (6.5 kilometers) (Coates et al. 2013; Nevada Governor's Sage-grouse Conservation Team 2010).
	The proximity of trees >3.3 feet (one meter) above shrub canopy and within potential habitat should not be within line-of-sight of a lek and <4% of landscape canopy cover within 1 kilometer of leks (Braun 2006; Connelly et al. 2000; Stiver et al. (in press); Baruch-Mordo et al. 2013).
Nesting (Breeding)	Sagebrush canopy cover is greater than 20% (Coates et al. 2010; Kolada et al. 2009a; Kolada et al. 2009b; Connelly et al. 2000; Connelly et al. 2003; Hagen et al. 2007).
	Sagebrush species present include Artemesia tridentate subspecies (Coates et al. 2013; Kolada et al. 2009a; Kolada et al. 2009b).
	Total shrub canopy cover is greater than 40% (Coates and Delehanty 2010).
	Perennial grass cover (live and residual) is not less than 5%, but is greater than 10% if total shrub cover is less than 25% (Coats et al. 2013; Coates and Delehanty 2010; Kolada et al. 2009a; Kolada et al. 2009b).
	Annual grass cover is less than 5% (Lokyer et al. [in press]).
	Perennial grass height provides overhead and lateral concealment from predators (Connelly et al. 2000; Stiver et al. (2015); Connelly et al. 2003; Hagen et al. 2007).
	Proximity of tall structures (1 meter above shrub canopy) is not within 3 miles (Gibson et al. 2013).
Brood-Rearing/ Summer	Sagebrush canopy cover is 10 to 25% (Connelly et al. 2000).
	Perennial grass and forb cover is greater than 15% combined (Connelly et al, 2000, Hagen et al. 2007).
	Perennial forb canopy cover is >5% arid and >15% mesic for cover and food (Casazza et al. 2011; Lockyer et al. [in press])
	Grass forb heights provide lateral and overhead concealment (Kolada et al.2009b, Stivers et al. 2015).
	Manage for proper functioning condition in riparian areas/meadows for food ((Connelly et al, 2000, Stiver et al. 2015
	Understory species in the vicinity of riparian areas/meadows diversity is greater than five species present (Casazza et al. 2011; Stiver et al. [in press]).
	Has adjacent sagebrush cover (Connelly et al, 2000, (Connelly et al, 2000,
Winter	Winter habitat is composed of sagebrush plant communities with sagebrush canopy cover greater than 10% and sagebrush height greater than 25 centimeters (9.8 inches) above snow level (Connelly et al. 2000; USGS [in preparation]).

Source: (For nesting, brood-rearing, and winter habitat condition) USDI Fish and Wildlife Service (2013). Braun, C.E. 2006. Blueprint for sage-grouse conservation and recovery. Grouse: Tucson, AZ. Coates, P.S. and D.J. Delehanty. 2010. Nest predation of greater sage grouse in relation to microhabitat factors and predators. Journal of Wildlife Management 74(2): 240–248.

The following table provides goals and objectives for the bi-state sage grouse and bi-state sage grouse habitat.

Table 2. Goals and objectives for the bi-state sage grouse and habitat

Goals and Objectives for the Bi-state Sage Grouse and Habitat
Goal 1: Bi-state sage grouse habitat and movement corridors are managed to bring vegetation communities to their ecological site potential and to maintain or increase the species.
Objective 1a: By 2026, 200,000 acres of degraded habitat regardless of ownership (i.e., areas with conifer encroachment, invasive annual grasses, and/or altered fire regimes) have been improved through changes in management or restoration activities to meet desired habitat conditions.
Objective 1b: By 2026, bi-state populations will be at or above current levels.
Goal 2: Bi-state sage grouse and habitats will benefit from standards and guidelines adopted to eliminate or reduce negative impacts and increase positive impacts from discretionary and nondiscretionary actions.
Objective 2a: By 2020, bi-state sage grouse productivity, survival, or use of seasonal habitats will be at least at the same level as they are in 2014.
Objective 2b: By 2019, water developments (tanks and troughs) will be designed or retrofitted to decrease the risks of drowning or disease or as breeding sites for vectors such as mosquitos.
Objective 2c: Saleable mineral pits determined to be no longer in use shall be reclaimed by the operator to meet sage grouse conservation objectives within 5 years of such determination.
Goal 3: In habitat, fuels treatments are used as a management tool when the benefits to bi-state sage-grouse clearly outweigh the risks; otherwise fire is suppressed in habitat after life and property.
Objective 3a: By 2026, proactive fire prevention treatments will have been implemented in or adjacent to 30% of the identified habitat.
Objective 3b: By 2019, risk of unwanted fire in habitat shall be 20% lower compared to conditions in 2014.
Goal 4a: Areas at risk of conversion to a degraded, disturbed, or invaded state are declining in size and distribution.
Objective 1a: By 2026, 200,000 acres of degraded habitat regardless of ownership (i.e., areas with conifer encroachment, invasive annual grasses, and/or altered fire regimes) have been improved through changes in management or restoration activities to meet desired habitat conditions.
Goal 4b: Reduction of fuel loads has reduced the risk of high severity fires in bi-state DPS habitat.
Objective 4b: Over the next 10 years, areas with annual invasive grass dominance are reduced across 20,000 acres of habitat.
Goal 4c: Bi-state sage grouse habitat has moderate to high resilience to disturbance and resistance to invasive annual grasses.
Objective 4b: Over the next 10 years, areas with annual invasive grass dominance are reduced across 20,000 acres of habitat.
Goal 5: Over the next 25 years, areas with ≥25–65% and areas with >65% sage brush cover are increasing through the implementation of integrated restoration strategies.
Objective 1a: By 2026, 200,000 acres of degraded habitat regardless of ownership (i.e., areas with conifer encroachment, invasive annual grasses, and/or altered fire regimes) have been improved through changes in management or restoration activities to meet desired habitat conditions.
Objective 4b: Over the next 10 years areas with annual invasive grass dominance are reduced across 20,000 acres of habitat.
Objective 5a: Over the next 10 years manage or restore habitat so that land cover provides adequate sagebrush habitat to meet bi-state sage grouse needs to maintain or increase current populations.

Add as described:

- *Page IV-49, FOREST-WIDE STANDARDS AND GUIDELINES—WILDLIFE AND FISH:*
  - *Insert as 3.K.*
- *Page IV-80, Management Area 2:*
  - *Insert before section "PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2"*
- *Page IV-88, Management Area 3:*
  - *Insert before section "PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3"*
- *Page IV-97, Management Area 4:*
  - *Insert before section "PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4"*
- *Page IV-108, Management Area 5:*
  - *Insert before section "PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 5"*
- *Page IV-113, Management Area 6:*
  - *Insert before section "PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 6"*

Standards and Guidelines in Bi-state Sage grouse Habitat

The following table will be used as a guide for the consideration of the potential effects to bi-state sage grouse and bi-state sage grouse habitat from proposed activities during the specified timeframes.

Table 3. Timeframes for bi-state DPS

Date	Impacts to Consider
March 1–May 15	Breeding (critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity)
April 1–June 30	Nesting and early brood-rearing (critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity)
July 1–September 15	Late brood-rearing
September 1–October 31	Fall
November 1–March 1	Winter

The following standards and guidelines apply to bi-state sage-grouse habitat as identified on the ground by a Wildlife Biologist. A project or activity that deviates from these standards may be approved only if a Forest Plan amendment to change the standard is approved. A project or activity that deviates from these guidelines may be approved only if it is as effective in achieving the intent for the guideline and documented in the appropriate approval document for the project or activity; otherwise, the project or activity may be approved only if a Forest Plan amendment to change the guideline is approved. These standards and guidelines do not change prohibitions

or restrictions established elsewhere in Forest wide standards and guidelines or management areas. Standards are denoted by the “S” before the number, guidelines by the “G.

Table 4. Standards and guideline for bi-state DPS

	Selected Standards and Guidelines
All Activities	**AA-S-01:** Project proposals shall include best management practices (BMPs) for each resource as appropriate to restore, conserve, and enhance bi-state sage grouse and its habitat.
	AA S-02: Total anthropogenic disturbances shall affect no more than 3% of the total bi-state sage grouse habitat within 4.7 mile of active and pending leks in the Bodie / Mount Grant, Desert Creek/Fales, and White Mountains population management unit boundaries. See definition of Anthropogenic Disturbance in glossary.
	AA S-03: Total anthropogenic disturbances shall affect no more than 1.5% of the total bi-state sage grouse habitat within 4.7 miles of active and pending leks in the Pine Nut Mountains Population Management Unit boundaries.
	AA-S-04: Habitat restoration projects shall meet one or more of the following habitat needs: Promote the maintenance of large, intact sagebrush communities; limit the expansion or dominance of invasive species, including cheatgrass; maintain or improve soil site stability, hydrologic function, and biological integrity; and enhance the native plant community.
	AA-S-05: Subject to valid existing rights, require buffers, timing limitations, or offsite habitat restoration for new or renewed disturbance actions to mitigate potential long-term impacts.
	AA-S-06: Require site-specific project mitigation to insure no permanent net loss of habitat due to project disturbance.
	AA-S-07: After severe soil disturbances or seeding, the land shall not be returned to soil-disturbing authorized uses for a minimum of three annual growing cycles or until desired habitat conditions and project objectives have been met, whichever is longer.
	AA-S-08: Subject to valid and existing rights, do not install tall structures that could serve as predator perches or decrease the use of an area within 4 miles of an active or pending lek.
	AA-S-09: Do not authorize/install new fences unless necessary for safety or environmental protection reasons. If fences must be installed, they should be at least 1.2 miles from active and pending leks, and, should be let-down fences when not needed for the purpose of their installation.
	AA-S-10: To reduce bi-state sage grouse mortality, remove, modify, or mark fences in sage grouse habitat based on nearest proximity to lek, lek size, and topography where fence densities exceed 1.6 miles of fence per section (640 acres).

	Selected Standards and Guidelines
	AA-S-11: During project implementation limit offsite noise to less than 10 decibels (dbA) above ambient measures from 2 hours before until 2 hours after sunrise at the perimeter of a lek (0.25 mile buffer around lek point) during active breeding/nesting season.
	AA-G-01-Subject to valid and existing rights, remove tall structures in bi-state sage grouse habitat within 4 miles of active of pending lek that could serve as predator perches or decrease the use of an area.
	AA-G-02: When re-seeding use genetically and climatically appropriate and certified weed-free plant and seed material. Use locally collected native perennial grass and forb seeds when available. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.
Access/ Recreation	**AR-S-01:** Authorize new roads only when necessary for public safety, administrative, or public need to accommodate valid existing rights and to minimize disturbance footprint of ROWs in bi-state habitat.
	AR-S-02: Between March 1 and June 30, off-highway vehicle events that pass within 4 miles of an active or pending lek shall not be authorized. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity
	AR-S-03: Do not authorize off-highway vehicle events within winter habitats November 1 to March 1.
	AR-S-04: Prohibit new recreation facilities in bi-state sage grouse habitat (e.g., campgrounds, day use areas, scenic pullouts, trailheads, etc.).
	AR-G-01: Use existing roads and co-locate powerlines, pipelines, and other linear features to reduce disturbance and habitat fragmentation and to minimize disturbance footprint of rights-of-way (ROWs) in bi-state habitat.
Land Use/Special Use	**LUSU-S-01:** Do not grant new ROWs. If valid existing rights apply, co-locate new ROWs within existing ROWs or where it minimizes impacts to bi-state sage grouse habitat.
	LUSU-S-02: When informed that a ROW is no longer in use, relinquish the ROW and reclaim the site by removing powerlines, reclaiming roads, and removing other infrastructure within bi-state sage grouse habitat, where such reclamation work does not create adverse effects.
	LUSU-S-03: Do not authorize utility-scale commercial wind energy facilities.
	LUSU-S-04: Do not authorize utility-scale solar energy facilities.

	Selected Standards and Guidelines
	LUSU-G-02 Industrial wind facilities associated (on site) with existing industrial infrastructure (e.g., a mine site) may be authorized to provide onsite power generation and to minimize disturbance footprint of ROWs in bi-state sage grouse habitat.
	LUSU-G-03: Industrial solar energy facilities (on site) associated with existing industrial infrastructure (e.g., a mine site) may be authorized to provide on-site power generation and minimize the disturbance footprint related to powerlines in habitat.
	LUSU-G-04: Where feasible, bury powerlines to reduce overhead perches for avian predators.
	LUSU-S-05: Require permit holders to retro-fit existing powerlines and other utility structures within 4 miles of an active or pending lek with perch-deterring devices during ROW renewal process. The intent is to reduce perch opportunities for avian predators.
	LUSU-S-06: Federal lands shall be retained unless a public interest determination identifies a net benefit to bi-state sage grouse habitat.
	LUSU-S-07: Land acquisition plan shall include all inholdings that include bi-state sage grouse habitat within national forest system boundaries.
	LUSU-S-08: Do not authorize outfitter-guide activities in bi-state sage grouse habitat that occur within 4 miles of active leks from March 1 to June 30. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity.
	LUSU-S-09: Require proper containment and prompt removal of refuse to avoid attracting predators/scavengers.
	LUSU-S-10: Do not authorize new high-power (120 kV) transmission line corridors, transmission line ROWs, transmission line construction, or transmission line facility construction in habitat outside existing corridors.
Wildlife	**Wild-S-01:** Any vegetation treatment shall maintain, improve, or restore bi-state sage grouse habitat.
	Wild-S-02: Vegetation treatments and post-disturbance restoration shall seed and/or transplant sagebrush to restore large patches of sagebrush cover and connect existing patches.
	Wild-S-03: Time implementation of habitat restoration projects so that impacts to bi-state sage grouse individuals and populations are limited by duration, scope, and scale.
	Wild-G-01: Remove phase 1 and 2 pinyon-juniper located in habitat during habitat restoration projects with the intent to maintain sagebrush habitat prior to establishment of forest species.

<table>
<tr><th></th><th>Selected Standards and Guidelines</th></tr>
<tr><td rowspan="2">Range: Permitting</td><td>RP-S-01: Grazing permits, annual operating instructions, or other appropriate mechanism for livestock management shall include terms, conditions, and direction to move toward or maintain bi-state sage grouse habitat desired conditions.</td></tr>
<tr><td>RP-G-01: In bi-state sage grouse habitat, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as consistent with maintaining sage-grouse habitat based on desired conditions as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired bi-state sage grouse habitat conditions (ROD Table 1a or 1b).</td></tr>
<tr><td rowspan="2">Range: Utilization Standards</td><td>RU-S-01: Manage livestock grazing to maintain residual cover of herbaceous vegetation so as to reduce predation during breeding/nesting season (March 1 to June 30 critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity).</td></tr>
<tr><td>RU-S-02: Manage livestock grazing in accordance with the utilization standards in this table.
<table>
<tr><th>Community Type</th><th>Percent Utilization of Key Species</th><th>Terms and Conditions</th></tr>
<tr><td>Mountain Big Sagebrush</td><td><45% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Wyoming and Basin Big Sagebrush</td><td><35% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Black Sagebrush</td><td><35% herbaceous species;
<35% shrub species</td><td>Livestock removed in 5 days of reaching utilization level</td></tr>
<tr><td>Riparian and Wet Meadows</td><td><50% herbaceous species;
<35% woody species (current year’s growth); or
average stubble height of at least 4–6 inches (depending on site capability and potential) for herbaceous riparian vegetation</td><td>Average stubble height 4–6 inches:
Livestock removed in 5 days of reaching utilization level based on site; or
(sequential action) no grazing from May 15–August 30 in brood-rearing habitat</td></tr>
</table></td></tr>
<tr><td rowspan="2">Range: Improvements (All)</td><td>RI-S-01: Any new structural range improvements and location of supplements (salt or protein blocks) shall not retard the conservation, enhancement, or restoration of bi-state sage grouse habitat.</td></tr>
<tr><td>RI-S-02: Salting or supplemental feeding stations shall not be located within 2 miles of an active lek and 0.6 miles from riparian areas.</td></tr>
</table>

	Selected Standards and Guidelines
Range: Improvements (Water)	**RI-S-03:** Water developments (tanks/troughs) shall be drained when not in use, unless they are needed by other species, so they do not create a breeding habitat for mosquitos that disease such as West Nile Virus.
	RI-S-04: Wildlife escape ramps shall be installed and maintained in water troughs or open water facilities with vertical embankments that pose a drowning risk to birds.
	RI-S-05: Water developments at springs and seeps shall be maintained to preserve the continuity of predevelopment riparian areas. Modifications to the developments shall be neutral or beneficial to the bi-state sage grouse.
	RI-S-06: Livestock watering and handling facilities (corrals, chutes, dipping vats, etc.) or sheep bedding grounds shall not be located within 2 miles of an active lek and 0.6 miles from riparian areas.
	RI-G-01: Authorize new water development for diversion from spring or seep source only when habitat would benefit from the development. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.
Weeds	**Weed-S01:** Treatment methodologies are based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance: (1) use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals, and (2) treat areas in early- to mid-phase pinyon-juniper expansion.
	Weed-S-02: Use pesticides/herbicides only outside of the critical disturbance periods and only if other integrated pest management approaches are inadequate or infeasible. Only use chemicals with the lowest toxicity to birds that still provide control in coordination with USDA or APHIS, depending on the targeted pest.
	Weed-S-03: Agency personnel, contractors, and permit holders working in areas with known weed infestations shall clean vehicles of dirt, mud, and visible plant debris before entering a different area to reduce the spread of noxious weeds.
	Weed-S0-4: Annual invasive grasses shall be controlled or suppressed using an integrated strategy.
	Weed G-01: Grazing may be used to target removal of cheatgrass or other vegetation hindering bi-state sage grouse objectives where monocultures occur to reduce risk of fire and achieve or move toward desired habitat conditions. Sheep, goats, or cattle may be used as long as the animals are intensely managed and removed when incidental utilization of desirable species reaches 25%.
	Weed-G-02: Require aggressive treatment of new weed or annual grass infestation form any surface-disturbing or other activity that is likely to cause or promote the introduction or infestation to control the potential spread of noxious and invasive annual grass species.

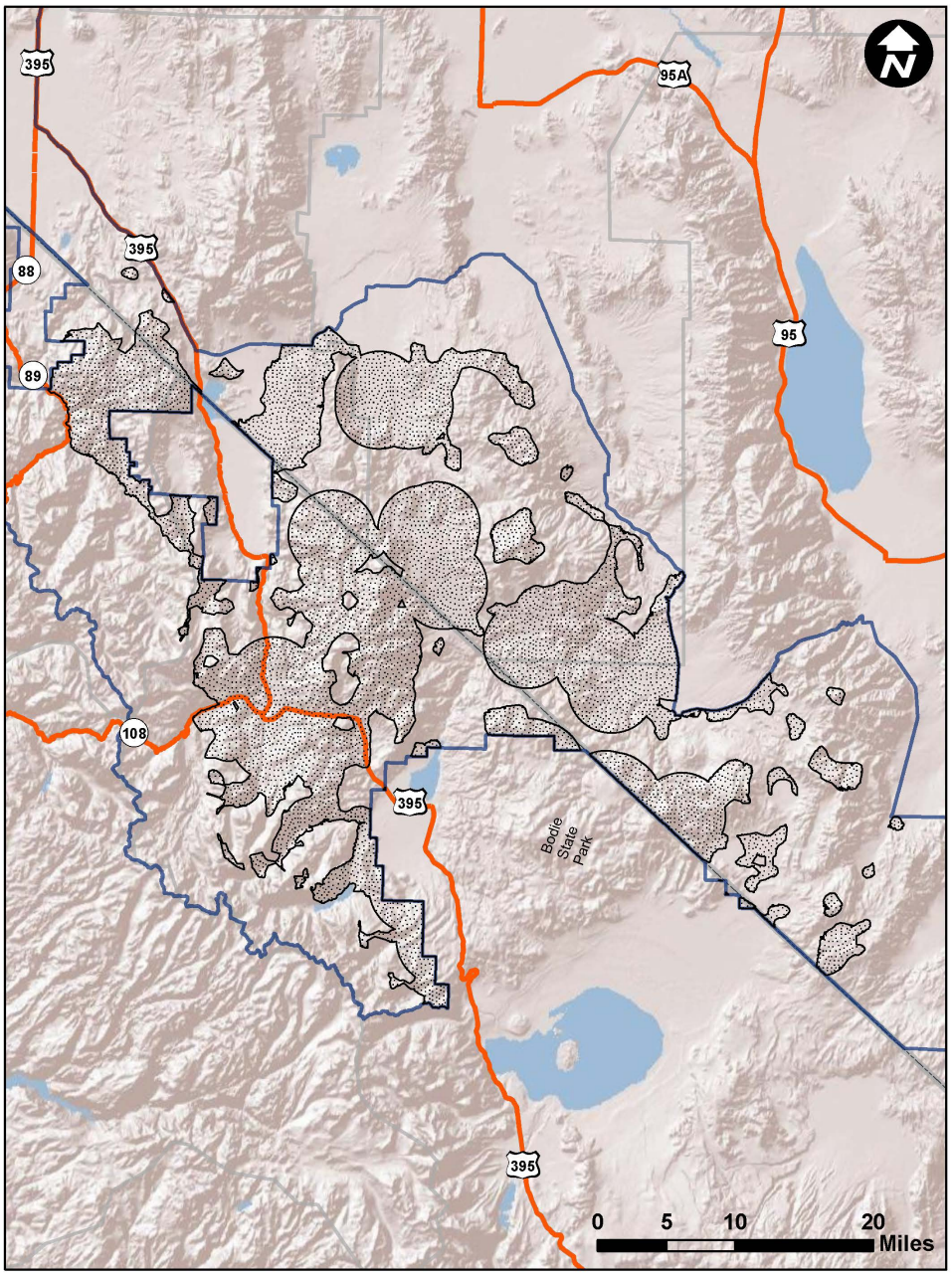
	Selected Standards and Guidelines
Wild Horse/ Burro	**WHB-S-01:** Appropriate management levels in territories and herd management areas with habitat shall be based on the structure, condition, and composition of vegetation needed to achieve bi-state sage grouse habitat objectives.
Minerals General	**MG-S-01:** Apply timing restrictions between March 1 and June 30 within 4 miles of active or pending leks to avoid construction, drilling, completion, geophysical explorations, and reclamation activities, including those of exploratory wildcat wells. Critical disturbance period dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity.
	MG-S-02: In connective area, maintain vegetation characteristics suitable to bi-state sage grouse to the extent technically feasible.
	Min-S-03: Control fugitive dust on roads and pads.
	MG-S-04: Require a full reclamation bond specific to the site. Insure bonds are sufficient for costs relative to reclamation that would result in full restoration in habitat.
	MG-S-05: Use areas with prior disturbance to site infrastructure.
	MG-S-06: Camps for workers shall be located outside habitat.
	MG-G-01: On current/existing leases concentrate disturbance/facilities to reduce spatial impact to habitat. The intent of the guideline is to minimize disturbance footprint wherever possible.
Fluid Minerals	**MF-S-01:** For fluid minerals do not consent to leasing in bi-state sage grouse habitat unless under no-surface-occupancy without exceptions, modifications or waivers.
	MF-S-02: Between November 1 and June 30, seismic and geophysical exploration within 4 miles of an active or pending lek shall not be authorized. During other times, apply the least invasive seismic and geophysical exploratory methods in habitat. Critical disturbance period the June 30 dates may shift 2 weeks back or forward in atypically dry or wet years based on observations of breeding/nesting activity
	MF-S-03: All commercial pipelines shall be buried where possible.
	MF-S-04: Upon expiration or termination of existing leases in bi-state sage grouse habitat, do not consent to leasing.
	MF-S-05: Require reclamation of disturbed areas to move toward desired conditions for habitat when facilities are no longer needed or leases are relinquished.
	MF-S-06: Use closed-loop systems for drilling operations, with no reserve pits when technically feasible.

	Selected Standards and Guidelines
	MF-S-07: Use noise shields when drilling during the breeding, nesting, brood-rearing, and wintering seasons.
	MF-S-08: Do not authorize new compressor stations inside habitats.
	MF-G-01: Allow geophysical exploration to obtain exploratory information for areas outside of and adjacent to habitat to provide continued opportunities that would not disturb bi-state sage grouse habitat.
	MF-G-02: Limit disturbances to an average of one site per 640 acres on average, subject to valid existing rights. The intent of the guideline is to minimize disturbance footprint wherever possible.
	MF-G-03: Incorporate mitigation to offset all proposed surface disturbance that would result in loss of habitat. Mitigate first within the same population area where the disturbance is realized, and if not possible, within an adjacent habitat. The intent of this guideline is to move toward desired habitat conditions (Table 2-1, final EIS) when restoring habitat or mitigating disturbance.
	MF-G-04: If the lease is entirely within habitat, any development should be placed in an area that would be the least harmful to bi-state sage grouse, primarily through limiting ground disturbance to minimize the disturbance footprint in habitat.
Solid Leasable Minerals	**MS-S-01:** Do not consent to solid mineral lease in habitat.
	MS-S-02: Request that the BLM not issue permits for solid leasable mineral prospecting or mining in habitat.
	MS-G-01: If new mine facilities must be placed in habitat, then co-locate facilities in existing disturbed areas and authorize them to the minimum size necessary to reduce the disturbance footprint in habitat.
Mineral Materials	**MM-S-01:** Do not authorize new pits or prospecting permits in bi-state sage grouse habitat.
	MM-S-02: Authorize mineral material use and expansion of existing pits only with no unmitigated net loss of habitat.
	MM-S-03: Permits for existing mineral material sites shall require an approved pit development operating plan that minimizes impacts to bi-state sage grouse and other resources.
	MM-S-04: Any contract or permit for mineral material operations, except for disposals from community sites and common-use areas, shall include requirements for reclamation of the site to meet bi-state sage grouse habitat objectives.
	MM-S-05 Ensure no net unmitigated loss at existing mineral material sites in habitat.
	MM-S-06: Where the Federal government owns the surface, and the mineral estate is in non-Federal ownership, require an approved pit development plan.

	Selected Standards and Guidelines
Locatable Minerals	**ML-S-01:** Mitigate long-term negative impacts in habitat from discretionary or nondiscretionary activities to the extent practicable.
Fire Suppression	**FS-S-01:** Fires in moderate to low resilience and resistance sagebrush and wooded shrublands shall be suppressed to prevent an invasive annual grass-fire cycle.
	FS-G-01: Do not use fire as a management tool in areas where the risk of escaped fire could cause negative long-term impacts during wildfire situations.
	FS-G-02: In bi-state sage grouse habitat areas, prioritize suppression, immediately after life and property, to conserve the habitat during wildfire situations.
	FS-G-03: Suppress wildfire threatening unburned habitat contained within a broader burn perimeter.
Suppression in Wildland-urban Interface	**FS-G-05:** In bi-state sage grouse habitat areas, habitat meeting or moving towards desired condition will be prioritized immediately after direct threats to life and property; suppression in the Wildland-Urban Interface will be prioritized above habitat in order to protect life and property.
Fuels Treatments in Sagebrush	**FT-S-01:** Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of bi-state sage-grouse habitat and conserve habitat quality for the species.
	FT-S-02: Enhance and restore habitat while reducing the potential for severe wildfires in habitat.
	FT-G-01: Use fuel breaks and green strips to protect areas with >25% landscape sagebrush cover to provide protection for habitat that is moving toward or meeting desired condition.
	FT-G-02: Do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones, in areas where there is threat of cheatgrass invasion, or areas where the sagebrush cover would be reduced to less than 15% unless necessary to facilitate site preparation for restoration of Bi-State sage grouse habitat consistent with desired conditions..
	FS-G-03: Vegetation treatments should include fuel breaks to provide anchor points for wildland fire suppression to protect areas meeting or moving toward desired conditions
Prescribed Fire	**FP-S-01:** To reduce the risk of habitat loss related to management actions do not use fire as a management tool in areas where the risk of escaped fire could cause negative long-term impacts.
	FP-S-03: Annual invasive grasses shall be controlled or suppressed using an integrated strategy.

	Selected Standards and Guidelines
	FP-G-02: Manage post-treatment areas to increase perennial herbaceous species and minimize secondary weed invasion. The intent is to use fire only where it can do the most good and least harm to meet the purpose of the amendment and be consistent with Wild-S-01.

Attachment 2: Bi-state sage-grouse habitat map



Toiyabe National Forest Land Resource Management Plan Amendment #18 Attachment 2

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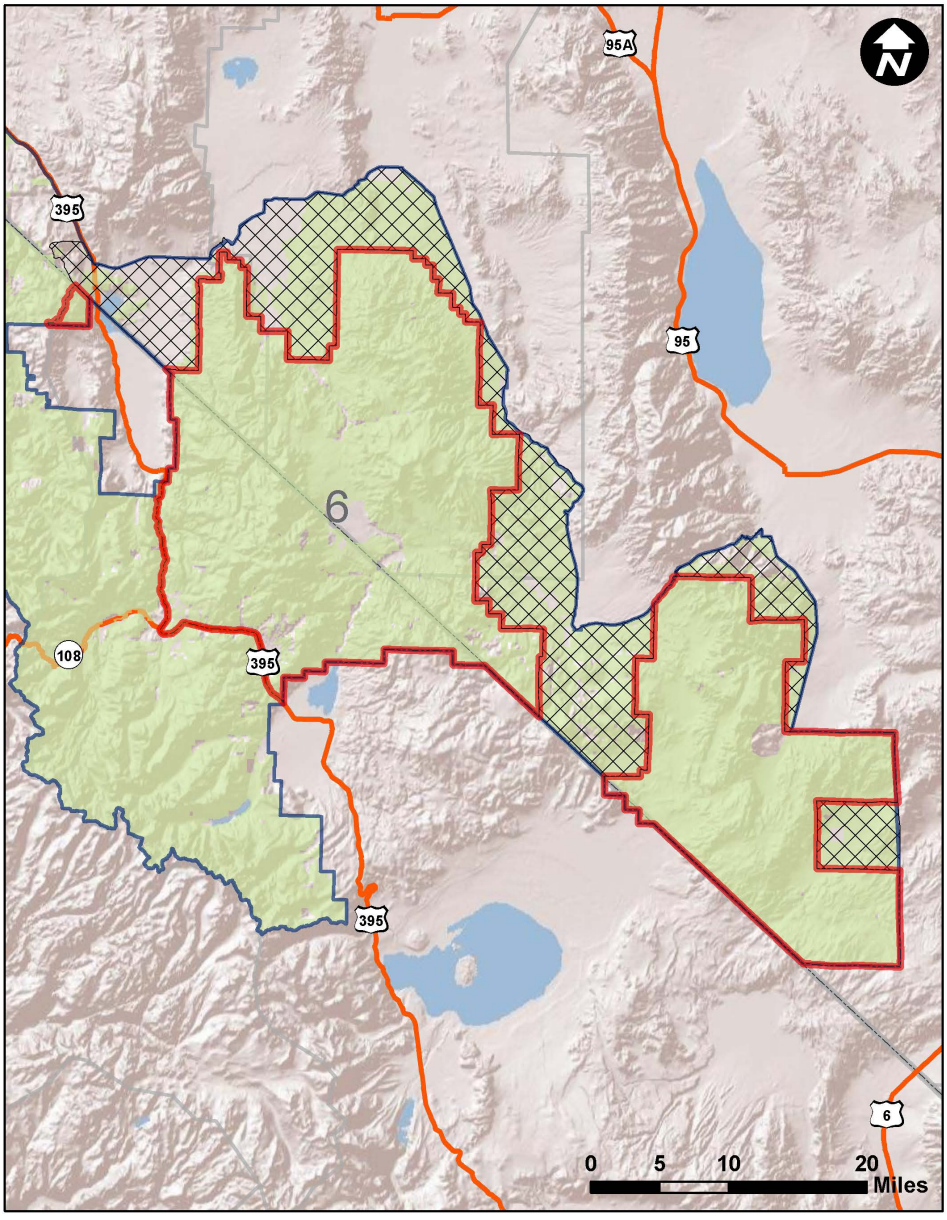
Greater Sage-grouse Bi-State DPS Habitat Humboldt-Toiyabe Forest Boundary

Attachment 3: Nevada Enhancement Act Lands



Toiyabe National Forest Land Resource Management Plan Amendment #18 Attachment 3
Enhancement Act Lands: Bridgeport Addition

Humboldt-Toiyabe Forest Boundary | Forest Service Land | Toiyabe Management Area 6 | Added Lands

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Attachment 4: Monitoring

Monitoring Sage-Grouse Response to Management Actions Prescribed by the Bi-State Action Plan

Prepared for the Bi-State Executive Oversight Committee for Conservation of Greater Sage-Grouse by the Bi-State Technical Advisory Committee Nevada and California (USGS Western Ecological Research Center, lead)

Justification and Need

Greater sage-grouse are considered a landscape species requiring ecological integrity of sagebrush ecosystems, and in 2013 the USFWS proposed to list the Bi-State distinct population segment (DPS) of greater sage-grouse (*Centrocercus urophasianus*) as threatened under the Endangered Species Act due to the loss and fragmentation of sagebrush ecosystems and declining lek attendance trends for some sub-populations (CFR 2013, Garton et al. 2011). Bi-State sage-grouse occur along the border of California and Nevada (i.e., 'the Bi-State'), and represent the extreme southwestern extent of the species' range (Schroeder et al. 2004). Strong geographic isolation and loss of contiguous sagebrush habitat has led to genetic divergence from the rest of the species range across the Great Basin (Benedict et al. 2003, Oyler-McCance et al. 2005) resulting in the classification of the Bi-State populations as a Distinct Population Segment (DPS).

The Bi-State Action Plan (2012) identified a suite of threats to the persistence of Bi-State sage-grouse, and potential management actions designed to ameliorate those threats. Chief among those threats is the synergy between encroachment of pinyon-juniper on sagebrush habitat, accelerated wildfire frequency, urbanization/ex-urbanization, and annual grass invasion. Unlike many cases involving conservation of imperiled species, however, threats of pinyon-juniper and related increases in wildfire and annual grasses represent a scenario where proactive habitat management can stem the decline of sage-grouse in the Bi-State area without the need for additional regulation. Consequently, several agencies within the Department of Interior (USFWS, BLM, USGS) and Department of Agriculture (NRCS, USFS), along with state wildlife agencies, recently announced a $45 million plan to fund management actions identified in the Bi-State Action Plan (2012), including the thinning and removal of thousands of acres of pinyon-juniper encroachment into sagebrush habitat. These actions, in part, prompted withdrawal of the proposed listing in April 2015 (CFR 2015)

The Bi-State Action Plan (2012) also called for a science-based adaptive management plan based on the results of comprehensive research and monitoring. Importantly, data derived from the Action Plan would ultimately feed into a conservation planning tool (CPT) designed to quantitatively predict and validate the effectiveness of management actions for sage-grouse and their habitat. The Bi-State Technical Advisory Committee, with leadership from researchers with the USGS Western Ecological Research Center (P. Coates lab), have developed a spatially-explicit CPT that uses empirically derived estimates of sage-grouse resource selection and probability of space use across the Bi-State to evaluate how proposed management actions can best benefit sage-grouse. The core of the CPT relies on location data obtained from radio- and GPS-marked sage grouse coupled with lek counts across multiple sites in the Bi-State. In addition, new input layers have been developed that enable finer-scale and more powerful analyses of the effects of conifer encroachment, wildfire intensity, and annual grass invasion on sage-grouse habitat quality and probability of sage-grouse use within the context of the CPT. USGS researchers have also developed an integrated population model (IPM) that rigorously estimates sage-grouse population trajectories using a combination of lek count data and vital rates (Coates et al. 2014a). The ultimate goal is to combine IPM output into the CPT to ask how management actions ultimately affect sage-grouse

population performance (in addition to resource selection and space use). The information from these two tools currently represents the best available science as decisions regarding Bi-State sage-grouse management and policy move forward.

However, for continual effectiveness, the CPT and IPM require a steady-stream of new data describing sage-grouse movements and demography relative to changing environmental conditions, including those resulting from management activities (e.g., pinyon-juniper removal, translocations) and those stemming from environmental stochasticity (e.g., wildfire, climate change). The current versions of the CPT and IPM rely on high quality and multi-year data collected during the 2000's. Data collected from field studies across multiple sub-populations of Bi-State sage grouse outlined in this monitoring plan will fill the current need for more contemporary knowledge to refine the CPT and IPM; ultimately leading to better management decisions. Implementation of these new studies will allow for a more comprehensive monitoring program using standardized procedures, rather than a piece-meal approach, to evaluate the effectiveness of management actions across the Bi-State.

Objective

We will monitor sage-grouse demographic patterns, movements, and habitat associations from sub-populations across the Bi-State in a manner that allows for assessment of management actions using before-after-control-impact design (i.e., BACI) that will allow inference to individual populations and the entire Bi-State. For example, demographic and spatial responses of sage-grouse can be efficiently assessed by having a pool of telemetered (VHF or GPS) individuals marked across multiple sites prior to conifer removal, which comprise a baseline reference. With sufficient re-marking efforts, short- and- long term responses of sage-grouse in relation to implemented conifer removal projects can be continually assessed in comparison to measured pre-treatment conditions at the treated site, and to conditions at other treated and non-treated sites across the Bi-State. Importantly, costs will be efficiently allocated because of existing efforts in place for collecting baseline monitoring data. In addition, continuing a time series of field-data collection across multiple sites will allow for continued assessment of population trajectories relative to changing environmental conditions. Specifically, we will:

- Monitor at least 30 sage-grouse annually (or bi-annually) at targeted subpopulations (Table 1). Selection and number of subpopulations for field study and numbers of grouse tagged with VHF or GPS will be adaptive and adjusted by the TAC according to identified objectives, implementation of land-treatments, new information, and available funding.
- Re-establish a viable and sustainable population of sage-grouse in Parker Meadows by translocating sage-grouse from nearby populations to bolster demographic vital rates and genetic diversity, and conduct a multi-year field-based evaluation of translocation effects on demographic performance, resource utilization, and genetic diversity to aid in the recovery of sage-grouse in the Bi-State DPS.

Field Methods

- The monitoring strategy will comprise field study of ca. 7 subpopulation sites within the Bi-State DPS (California and Nevada). Sites will be divided among those slated for management action with extensive prior monitoring (e.g., Bodie Hills), those slated for management action but with less extensive prior monitoring (e.g., Desert Creek), translocation (e.g., Parker Meadows), and reference areas.
- All captured grouse will be marked with standard VHF transmitters, which will allow for accurate estimation of demographic vital rates (e.g., nest success, brood success, juvenile and adult survival), and provide additional data necessary to model resource selection probabilities and space use. A subsample of VHF birds will be marked with additional GPS platforms that allow

more detailed modeling of resource selection and movement rates in time and space use in relation to environmental covariates.

- Conduct intensive 'on-the-ground' and aerial tracking of radio-marked sage-grouse and associated micro-habitat features associated with nesting and early and late brood-rearing areas, as well as monitoring during the winter period with additional support. Conduct concomitant surveys of avian and mammalian predators. Incorporate nest-videography where applicable for specific study objectives.
- Translocate a minimum of 25 sage-grouse Parker Meadows from nearby source populations (e.g., Bodie Hills, Long Valley), with supplement translocations (10 – 25 birds) occurring annually for at least 3 years. Populations targeted as source populations will be made in consultation with project partners. In addition, we will artificially inseminate ~50% of females of prior to translocation to help bolster the probability of successful nesting and fidelity to Parker Meadows, and conduct least 3-years of post-translocation monitoring to quantify the efficacy of the translocation program in terms of changes in demographic performance using integrated population modeling techniques, habitat selection and movements, and genetic diversity for radio-marked sage grouse at Parker Meadows and translocation source populations. Blood and feather samples will be collected for collaborative genetic analyses that assess changes in neutral and functional genetic diversity that may increase population persistence.
- Continue standardized annual surveys of male sage-grouse attendance across all known lek sites in the Bi-State, coupled with aerial and ground-based searches for new leks.
- All field study components (e.g., capture, radio-marking, lek surveys, habitat assessments, predator indices) will follow well-established and repeatable USGS protocols.

Expected Products

- Continue development of GIS input layers for the CPT that will allow more accurate modeling of how dynamic environmental conditions in the Bi-State influence sage grouse, including refinements to USGS-developed high resolution maps of pinyon-juniper encroachment, using downscaled PRISM climate data to map climatic variation (e.g., 250 - 800 m blocks of temperature, precipitation, climatic water deficit, transpiration rate, etc.), and implementing Monitoring Burn Severity and Intensity (MTBS) methods to calculate up-to-date spatially explicit estimates of wildfire frequency and intensity.
- Update (annually or bi-annually) spatially-explicit resource selection function maps that predict the seasonal probability of occurrence of sage-grouse based on environmental covariates using all telemetry data (e.g., Bi-State 2012, Coates et al. 2014b).
- Update (annually or bi-annually) the IPM to include new vital rate information. The IPM uses Bayesian statistics to integrate demographic and survey data with estimated error that are used to ultimately derive sub- and whole-population estimates of growth, along with life-stage specific vital rate parameters most responsible for variation in growth trajectories (Coates et al 2014a).
- Update (annually or bi-annually) space use models with lek survey data using the methods described by Coates et al. (2014b), which combine estimates of lek density (weighted by average of male lek attendance) with the non-linear probability of space-use relative to distance to lek .
- Refine the CPT to include multiple metrics, including life-history demographic data, space-use indices, and seasonal resource selection functions. This model will be used to evaluate efficacy of Bi-State management actions, and will be used as a framework for developing similar tools for use range-wide.

- Using model derived estimates, conduct additional in-depth analyses of threats to Bi-State sage-grouse populations, including
    - Thresholds for the amount of conifer on the landscape required to influence avoidance behavior, movement rates, and survival of sage-grouse.
    - Effects of climatic conditions on sage-grouse population performance, and projected population growth rates under different climatic scenarios.
    - Effects of wildfire on population growth rate and resource utilization.
    - Reduction of gene flow.
- Produce annual reports and presentations to the Bi-State EOC, along with multiple peer-reviewed scientific journal articles and presentations at scientific meetings.
- Build upon existing strong collaborative relationships with academic partners (i.e., University of California-Davis, Idaho State University, University of Nevada-Reno), and provide opportunities for graduate-level research.
- Host workshops and outreach activities with local, state, and federal resource managers on applications of the CPT and related tools for sage-grouse management.

Budget and Rationale

USGS-WERC will provide lead responsibility for implementing the monitoring design and protocols, field data collection, data management and analysis (including CPT and IPM development and refinement), and reporting results to agencies. Additional support, particularly with field monitoring of sage-grouse, data compilation, and technical advisory will be provided by BLM, NDOW, CDFW, and USFS. Interagency agreements between the BLM and USGS allow for significant reductions in indirect cost rates.

Funding allocations are based on a land-ownership based model that proportionately (and objectively) allocate funding contributions among federal and state agencies. Project costs were first divided between federal and state land and wildlife management agencies using a 75% to 25% ratio. The rationale for this ratio was based on a threat based model for management actions within the Bi-State DPS, where the majority of management actions to reduce threats will be implemented by federal agencies. To allocate funding obligations for federal agencies (75% of total) we calculated percentages of land managed by BLM, USFS, and private using the Bi-State Project Area and verified with telemetry locations (see figure, next page). NRCS was recognized as providing support for the privately owned proportion of land. Similarly, for the state allocation (25% of total) we calculated the proportion of land jurisdiction of NDOW and CDFW within the PMU boundaries. The allocation of funds described here reflects an example of an objective approach and, thus, serves as a starting point for modifications based on actual agency commitments and available funding. Funding may support: 1) site-specific annual field studies; 2) project management to support USGS biologists and GIS analysts responsible for sophistical and time-intensive statistical analyses and geo-processing of data obtained from the field studies (e.g., data management, development of GIS layers, survival, space-use, and resource selection modeling, and continued development of the CPT and IPM); and 3) science advisory (meetings, maps, reports, other information products).

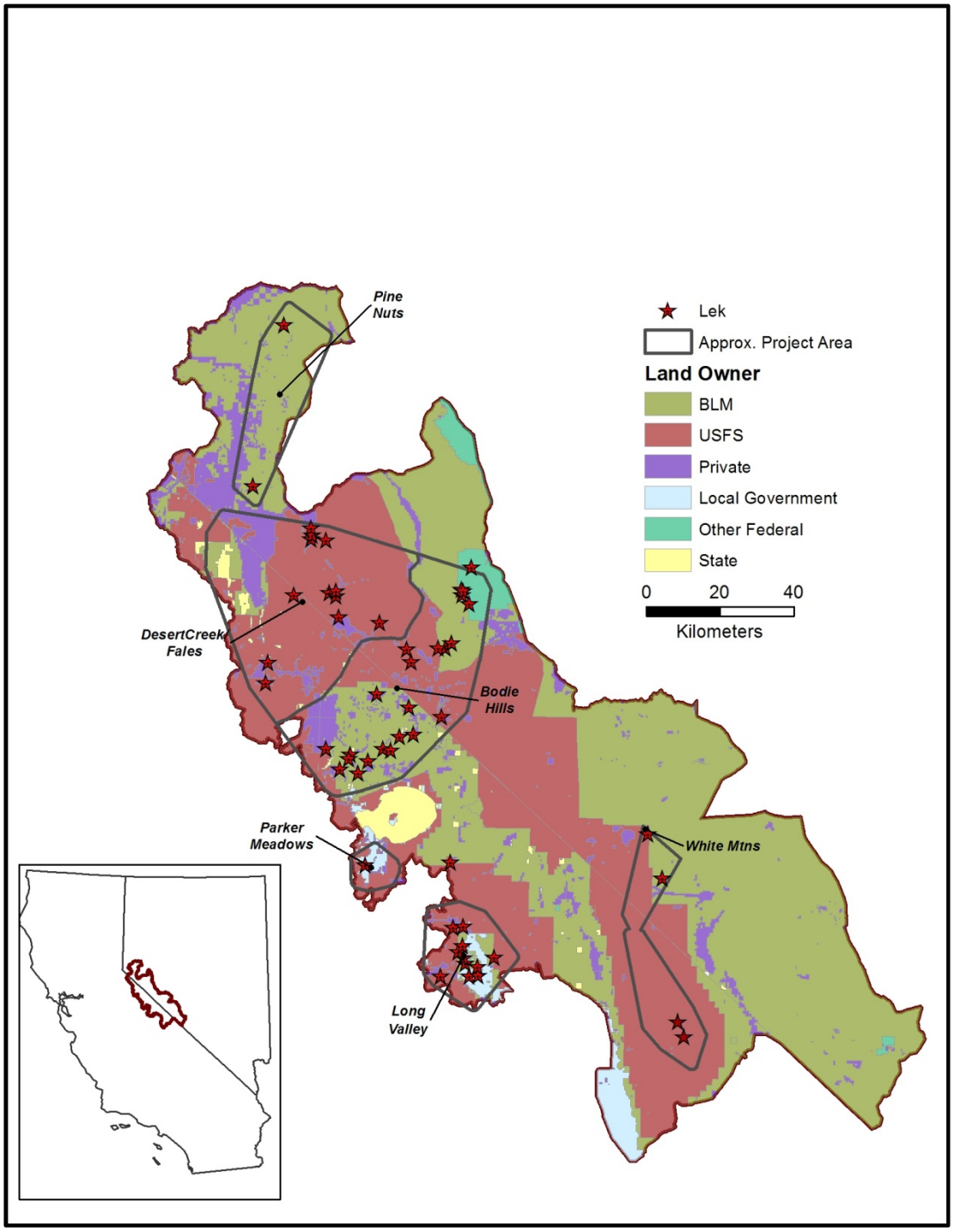
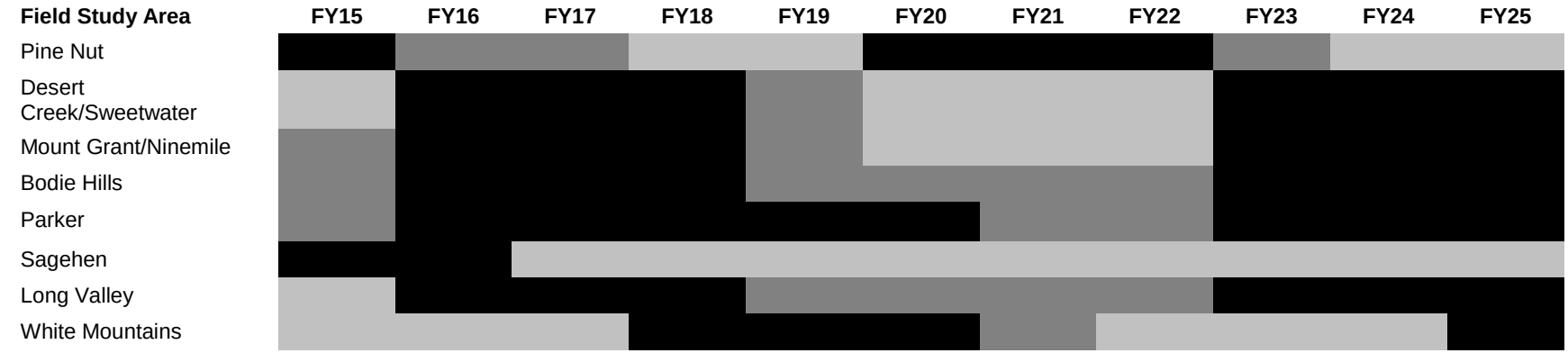

Pine Nuts
DesertCreek Fales
Bodie Hills
Parker Meadows
White Mtns
Long Valley
Lek
Approx. Project Area
Land Owner
BLM
USFS
Private
Local Government
Other Federal
State
0 20 40
Kilometers

Table A4-. Preliminary schedule for field studies of Bi-State sage-grouse



Intensive monitoring. Maintain 30 birds per year or 10-20% of population, with about 1/4 GPS collars. New trapping and collaring as necessary to maintain at least 30 birds per year.

Light monitoring. Continue following birds collared in previous years, but no or minimal trapping and collaring.

No monitoring planned.

Note: Yearly selection of study areas is subject to change according to TAC identified objectives, land-treatments, new information, and funding.

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CFR (2015) Endangered and threatened wildlife and plants; withdrawal of proposed rule to list the Bi-State Distinct Population Segment of greater sage-grouse and designate critical habitat. U.S. Fish and Wildlife Service, Department of Interior. 80 FR 22827.

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Glossary

Active lek ~ A lek in which two or more males are detected for 2 or more years within a 5-year period.

Anthropogenic disturbance ~ Human-created features within 4.7 miles of active or pending leks that include but are not limited to paved highways, graded gravel roads, transmission lines, substations, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

Connective areas ~ Areas of unsuitable habitat that fragment or separate suitable habitat areas, both within and between Population Management Units (PMUs). These connective areas are identified because they are located where connections between suitable habitats are most important and because they often contain habitats unsuitable to sage-grouse and may prevent or inhibit movement across the landscape. Examples of unsuitable habitats include: agricultural and urbanized areas, and areas with naturally occurring and expanding pinyon–juniper forest. Connective areas represent areas that habitat management could focus on improving suitability, minimizing fragmentation, and improving opportunities for sage-grouse movement, thus increasing the connections between suitable habitats.

Discretionary ~ Action is not legally mandated and can be influenced by agency's judgment or preference.

Duration ~ Amount of time (start to finish) proposed activities will occur in a project area.

Guideline ~ A constraint on project or activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met (36 CRF section 219,15(d)(3)). Guidelines are established to help achieve or maintain desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

Inactive lek ~ 0 or 1 males observed during every visit (minimum 2 visits) in the last 5 years.

Mitigation ~ Includes actions that: (1) Avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (5) compensating for the impact by replacing or providing substitute resources or environments.

Non-discretionary ~ Action where agency is legally mandated to act as part of required duties without exercise of personal judgment or preference.

Pending lek ~ Where 2 or more males observed only once in the last 5 years.

Phase I Conifer Encroachment ~ Trees are present on the site, but the shrub and herb layer are the dominant influence on ecological processes (hydrologic, nutrient, and energy cycles). Tree canopy cover of less than 10 percent (Miller et. al. 2005).

Phase II Conifer Encroachment ~ Trees are co-dominant with shrub and herb layers. All three layers influence ecological processes. Tree canopy cover of 10 to 30 percent (Miller et. al. 2005).

Phase III Conifer Encroachment ~ Trees are the dominant vegetation and the primary layer influencing ecological processes. Tree canopy cover of greater than 30 percent (Miller et. al. 2005).

Scale ~ Level at which the analysis is conducted (e.g. stand, watershed, landscape, administrative unit…).

Scope ~ Range of actions, alternatives, and impacts being considered in an analysis.

Standard ~ A mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

Tall structures ~ A wide array of infrastructure (e.g., poles that support lights, telephone and electrical distribution, communication towers, meteorological towers, and high-tension transmission towers) that have the potential to disrupt lekking or nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

Valid Existing Right ~ A private property interest, or other non- federal property interest, that confers a property right to engage in use, occupancy, or an activity on National Forest System land that the United States cannot completely prevent or preclude by regulation. Examples include: valid mining claims where there has been discovery of a valuable mineral deposit as defined by the Mining Laws; various easements and rights of way; existing leases; and reserved and outstanding rights on acquired land.