BLM

Nevada and Northeastern California Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment

Prepared by
US Department of the Interior
Bureau of Land Management
Nevada State Office

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The Bureau of Land Management's multiple use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

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Dear Reader:

Enclosed is the *Nevada and Northeastern California Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment* (ROD and Approved RMPA). The Bureau of Land Management (BLM) prepared this document in consultation with cooperating agencies and in accordance with the National Environmental Policy Act of 1969, as amended, the Federal Land Policy and Management Act of 1976, as amended, implementing regulations, the BLM's Land Use Planning Handbook (H-1601-1), and other applicable law and policy.

The planning area includes the following BLM Nevada District Offices: Battle Mountain, Carson City, Elko, Ely, and Winnemucca and the BLM California Field Offices of Applegate (Alturas and Surprise) and Eagle Lake. The planning area encompasses approximately 45 million surface acres administered by the BLM.

BLM Nevada and California manage Greater Sage-Grouse habitat as part of its multiple use management in 11 Resource Management Plans across Nevada and northeastern California. In 2015, these plans were amended to include specific management allocations, objectives, and management decisions within Greater Sage-Grouse Habitat Management Areas to conserve, enhance and restore Greater Sage-Grouse habitat.

On October 11, 2017, following the direction in Secretary's Order 3353, the BLM issued a Notice of Intent to amend the Resource Management Plans (as amended in 2015) regarding Greater Sage-Grouse habitat management to bring the plans in alignment with the individual States' Greater Sage-Grouse management plans and conservation strategies. On May 4, 2018, the BLM Nevada and California released a Draft Resource Management Plan Amendment and Environmental Impact Statement (Draft RMPA/EIS) which considered the potential impacts of the No-Action Alternative and the Management Alignment Alternative (Preferred Alternative). The Draft RMPA/EIS was sent out for a 90-day public comment period from May 4, 2018 to August 2, 2018. The BLM Nevada and California received a total of 34,650 unique comment letters, forms, and emails during the 90-day public comment period. These documents resulted in 595 substantive comments.

On December 10, 2018, the BLM Nevada and California released the Proposed Resource Management Amendment and Final Environmental Impact Statement (Proposed RMPA/FIES)

for a 30-day protest period and a 60-day Governor's Consistency Review. A total of 14 protest letters were received.

After much consideration and adjustment, resulting from modifications and clarifications to protests and from consistency concerns raised by the Governor of Nevada, the BLM now approves the Proposed RMPA as the Approved RMPA that will guide management of Greater Sage-Grouse habitat on BLM managed lands in Nevada and northeastern California, consistent with the State of Nevada's Greater Sage-Grouse Conservation Plan and conservation strategies implemented by the California Department of Fish and Wildlife.

The ROD and Approved RMPA are available electronically on BLM's ePlanning website: **https://goo.gl/uz89cT**

The BLM appreciates the extensive public involvement and the involvement of groups, organizations, cooperating agencies; local, State, and other Federal agencies; and Native American tribal representatives who contributed to the completion of this Approved RMPA. This participation informed and improved the planning process and the planning documents. Your continued involvement is encouraged as the Approved RMPA is implemented and monitored as we move forward in managing the public lands together.

Thank you for your continued interest in the BLM's Greater Sage-Grouse habitat management.

Sincerely,

Jon K. Raby
Nevada State Director
Bureau of Land Management

Joseph Stout
California State Director
Bureau of Land Management

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
BLM	Bureau of Land Management
BMP	best management practice
BSU	biologically significant unit

CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulation
CSU	controlled surface use
DOI	US Department of the Interior
EIS	environmental impact statement
FIAT	Fire and Invasives Assessment Tool
FLMPA	Federal Land Management and Policy Act
Forest Service	US Department of Agriculture, Forest Service
GHMA	General Habitat Management Area
HMA	habitat management area
HQT	Habitat Quantification Tool
IM	Instruction Memorandum
LUPA	Land Use Plan Amendment
MZ	management zone
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NSO	no surface occupancy
OHMA	Other Habitat Management Area
PAC	Priority Area for Conservation
PHMA	Priority Habitat Management Area
RDF	required design feature
RMP	resource management plan
RMPA	resource management plan amendment
ROD	record of decision

ROW	right-of-way
SETT	Sagebrush Ecosystem Technical Team
SFA	sagebrush focal area
SO	Secretary's Order
TL	timing limitation
USGS	US Geological Survey
FWS	US Fish and Wildlife Service
WAFWA	Western Association of Fish and Wildlife Agencies
WO	Washington Office

EXECUTIVE SUMMARY

This Record of Decision (ROD) and Approved Resource Management Plan Amendment (Approved RMPA) supports the Bureau of Land Management (BLM) Resource Management Plans (RMPs) in Nevada and northeastern California, including Battle Mountain, Carson City, Elko, Ely, and Winnemucca and the BLM California Field Offices of Applegate (Alturas and Surprise) and Eagle Lake. The Approved RMPA refines some of the decisions from the 2015 planning effort related to Greater Sage-Grouse habitat management and leaves in place the majority of the decisions from 2015. This amendment builds on the work that was completed in 2015 to respond to the deteriorating health of the sagebrush landscapes of the American West and the declining populations of the Greater Sage-Grouse (GRSG), a ground-dwelling bird that was under consideration by the US Fish and Wildlife Service (FWS) for protection under the Endangered Species Act (ESA).

The BLM has amended its RMPs for GRSG habitat management in order to provide additional consistency and alignment with the State of Nevada's Greater Sage-Grouse Conservation Strategy and conservation strategies with the California Department of Fish and Wildlife (CDFW). On March 29, 2017, the Secretary of the Interior (Secretary) issued Secretary's Order (SO) 3349, *American Energy Independence*, which ordered agencies to reexamine practices "to better balance conservation strategies and policies with the equally legitimate need of creating jobs for hard-working American families." On June 7, 2017, the Secretary issued SO 3353, with the purpose of enhancing cooperation among 11 western states and the BLM in managing and conserving GRSG. The agencies were also directed to review the 2015 GRSG plans and associated policies to identify provisions that may require modification to make the plans more consistent with the individual States' plans and conservation strategies and to better balance the BLM's multiple use mission. On August 4, 2017, the interior review team submitted its report in response to SO 3353, and recommended modifying the 2015 GRSG plans and associated policies to better align with the individual States' plans and conservation strategies. This ROD approves the Approved RMPA, which addresses the recommendations from the SO 3353 report and other planning issues raised during this land use plan amendment process.

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CHAPTER 1. RECORD OF DECISION

1.1 INTRODUCTION

The Bureau of Land Management (BLM) manages Greater Sage-Grouse (GRSG) habitat in conjunction with the States to support multiple mandate. In 2015, resource management plans that guide conservation of sagebrush steppe habitat on BLM-administered public lands in 9 western states were amended to include specific management allocations, resource objectives and management actions for designated GRSG Habitat Management Areas (HMAs) to help ensure conservation, enhancement, and restoration of GRSG habitat. In Nevada and northeastern California, 11 resource management plans covering BLM-managed public lands in northeastern northeastern Nevada and California were amended to reach this objective.

The BLM has used these initial Resource Management Plans (RMPs) as a platform for its ongoing commitment to on-the-ground activities that promote conservation through close coordination with state, local, and private partners. Most notably, the BLM has treated increased numbers of acres of sagebrush steppe habitat in every fiscal year since 2015 in coordination with the contributions of partners, accomplishing important goals for GRSG conservation and for other programs and activities, including fuels, riparian, and range management.

These habitat projects show that successful conservation of GRSG requires a shared stewardship vision among states, private citizens, landowners and federal land management agencies. While current law and regulations put state and local agencies at the forefront of efforts to maintain healthy fish and wildlife populations and to conserve at-risk species, state-led efforts to conserve GRSG and its habitat date back to the 1950s. For the past two decades, state wildlife agencies, local agencies, federal agencies and many others interested in the health of the species have been collaborating to conserve GRSG and its habitat across its range.

With the publication of these Records of Decision (RODs) and Approved Resource Management Pland Amendments (Approved RMPS), the BLM is concluding a planning effort focused on furthering cooperation with western states by ensuring greater consistency between individual State plans and conservation strategies for managing GRSG as a wildlife species and the BLM's multiple use mission for managing public land resources, including wildlife habitat. The planning process has given the BLM an opportunity to work with the States and other partners to promote shared conservation, strike a regulatory balance, and build trust as we find ways to sustainably develop public land resources for multiple use. The effort focused on ways to increase management flexibility, maintain access to public resources, promote positive conservation outcomes for GRSG and incorporate new information that is considered the best available science and is rooted in on-the-ground experience.

On October 11, 2017, following direction in Secretary's Order (SO) 3353 to enhance cooperation among 11 western states and the BLM in managing and conserving GRSG, the BLM issued a Notice of Intent (NOI) to amend the 2015 Approved RMPA guiding GRSG habitat management, focused on bringing the plans into closer alignment with the individual States' management plans and conservation strategies. Reflecting the commitment by the Department of the Interior (DOI), the NOI indicated that States would play a central role in the planning process, and all partners have declared their desire to avoid the need to list the GRSG under the Endangered Species Act (ESA). On May 4, 2018, the BLM released Draft Resource Management Plan Amendments and Environmental Impact Statements (Draft RMPA/EISs) for

Nevada and northeastern California and five other western states which considered and analyzed the potential impacts of a No-Action Alternative and a Management Alignment Alternative. While all changes proposed in the Alignment Alternatives were meant to enhance coordination with respective State plans, variations reflected the different approaches States are taking within their jurisdictions to conserve GRSG and the BLM's determination that greater flexibility is needed to ensure that each State can manage the habitat within its borders for the particular needs of its landscapes and communities.

On December 10, 2018 the BLM released the Proposed Resource Management Plan Amendments and Final Environmental Impact Statements (Proposed RMPA/FEISs) for a 30-day protest period (extended during the temporary lapse in Federal government funding), and a 60-day Governor's Consistency Review. The proposed plans built on the 2015 amendments to BLM RMPs, and incorporated three years of on-the-ground experience with what is working to conserve GRSG habitat on public lands in support of healthy populations managed and conserved by the States.

Together, the amended plans retain Priority Habitat Management Area designations (PHMA) for approximately 29 million acres of BLM-administered sagebrush-steppe. Within PHMAs, the management priority is to exclude or avoid disturbance to GRSG and its habitat, and to minimize impacts to PHMA where they cannot be avoided. Another 23.2 million acres retain designation as General Habitat Management Areas (GHMA), where avoidance and minimization are applied flexibly, consistent with both local conditions and the State's science-based objectives for species management. The plans for BLM-administered lands in Nevada and northeastern California include protections for 9.3 million acres of PHMA on BLM-managed surface.

Including habitat in Montana, North Dakota and South Dakota, a total of approximately 32 million surface acres will be managed as PHMA across the GRSG range, while another approximately 25 million acres are designated as GHMA. The plans for BLM lands in Nevada and northeastern California include one additional GRSG HMA (Other HMA; OHMA) category and management objectives specific to the States' needs. Trigger thresholds remain in place for BLM-managed GRSG habitat to indicate when adaptive management measures are needed to address population and/or habitat declines in GRSG HMAs.

Finally, the amended plans formalize coordination between the BLM and respective states in applying compensatory mitigation measures to approved actions. These plans reflect the BLM's determination that the Federal Land Policy and Management Act of 1976 (FLPMA) does not explicitly mandate or authorize the BLM to require public land users to implement compensatory mitigation as a condition of obtaining authorization for the use of BLM-administered lands. The plans clarify that the BLM will consider compensatory mitigation only as a component of compliance with a States' mitigation plan, program, or authority, other federal law or when offered voluntarily by a project proponent.

The amended plans reinvigorate the DOI's commitment to collaborate with our neighbors in conserving sagebrush habitats and GRSG populations. Further, the amended plans reflect the BLM's determination that greater flexibility to manage GRSG and its habitat will also lead to improved outcomes for the species.

1.2 PLANNING AREA

The Nevada and northeastern California planning area encompasses approximately 70.3 million acres which includes all lands within the planning area boundaries regardless of ownership. The BLM manages

approximately 64 percent, or about 45.4 million acres within this planning area boundary. The planning area includes the BLM Nevada District Offices of Battle Mountain, Carson City, Elko, Ely, and Winnemucca and the BLM California Field Offices of Applegate (Alturas and Surprise) and Eagle Lake. This ROD and Approved RMPA establishes management direction only for BLM-administered lands, and only for GRSG HMAs on those BLM-administered lands. HMAs within the planning area include approximately 9.3 million acres of PHMA, 5.7 million acres of GHMA, and 4.9 million acres of OHMA.

1.3 DECISION

The decision is hereby made to approve the attached *Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment*. This ROD and Approved RMPA become effective on the date this ROD is signed.

The BLM prepared the Approved RMPA under the authority of the Federal Land Policy and Management Act (FLPMA) (43 United States Code [U.S.C.] 1701 et seq.) and other applicable laws. The BLM prepared an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (42 U.S.C. 4321-4347) as amended (NEPA), and BLM planning regulations (43 Code of Federal Regulations [CFR] Part 1601 et seq.).

This plan amends various decisions contained in the 2015 Nevada and Northeastern California Greater Sage-Grouse Approved RMPA, as well as the following Resource Management Plans (RMPs):

California RMPs

- Alturas RMP (2008)
- Eagle Lake RMP (2008)
- Surprise RMP (2008)

Nevada RMPs

- Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area RMP (BLM 2004a)
- Carson City Consolidated RMP (2001)
- Elko RMP (1987)
- Ely RMP (2008)
- Winnemucca RMP (2015)
- Shoshone-Eureka RMP (1986)
- Tonopah RMP (1997)
- Wells RMP (1985)

The Approved RMPA retains the vast majority of the allocations, objectives, and management decisions in the above mentioned plans including the changes made in the 2015 Approved RMPA. Only portions of the 2015 Approved RMPA that deal with alignment inconsistencies with the States' conservation plans and strategies, consistent with SO 3353, or that require alignment with DOI and BLM policy directives that have been issued since 2015, are being amended (see attached Approved RMPA). All of the allocation decisions tied to PHMA, GHMA, and OHMA made in the 2015 Amendment remain in effect. Targeted changes are made in response to specific issues raised by the State of Nevada and California Department

of Wildlife (CDFW) to better align with the State of Nevada's Sage-Grouse Management Plan and California's management strategies.

1.3.1 Summary of Approved Management Decisions

Listed below is a summary of the key management decisions contained in the Approved RMPA:

Habitat Management Area Designations and Flexibility

- Adjusts HMA boundaries (PHMA, GHMA, and OHMA) so that they reflect the best available science based on updates to habitat data and use modeling (Coates et al. 2016) and are consistent with HMA boundaries identified by the State of Nevada and recommended by CDFW. This will provide consistency in management across jurisdictions and to third parties operating on public and state or private lands in Nevada and northeastern California.
- Integrates flexibility into the Approved RMPA, so that HMA designations (and their associated allocations) can be periodically adjusted based on the best available science, through plan maintenance or amendment, as appropriate.

Sagebrush Focal Areas (SFA)

- On March 31, 2017, the United States District Court for the District of Nevada held that the BLM violated the National Environmental Policy Act (NEPA) by failing to prepare a supplemental EIS for the designation of SFAs in the 2015 Nevada and Northeastern California Greater Sage-Grouse Resource Management Plan Amendment in Nevada. The Approved RMPA removes SFA designations and their associated management actions. Habitat in these previously designated SFAs will be managed as PHMA, GHMA, and/or OHMA. SFA previously identified as recommended for withdrawal from location and entry under the Mining Law of 1872 in the 2015 RMP Amendments are no longer recommended for withdrawal. While the BLM proposed to withdraw these areas in 2015, the BLM canceled the proposed withdrawal in 2017 (82 FR 47248; Oct. 11, 2017).

Adaptive Management

- Revises the Adaptive Management Strategy to include the best available science and better alignment with the State of Nevada's Adaptive Management Strategy (2018) which includes:
    - Updates biologically significant units (BSU), lek cluster boundaries, as well as the state-space model to determine GRSG population triggers (Coates et. al 2017).
    - Incorporated language regarding the longevity of soft and hard trigger responses.
    - Removes of all predetermined hard trigger responses which are replaced with a clear causal factor analysis process in collaboration with other Federal, state, and local partners.

Mitigation

- When authorizing third-party actions in GRSG HMAs, the BLM will seek to achieve the planning-level GRSG management goals and objectives through implementation of mitigation and management actions, consistent with valid existing rights and applicable law. Management will be consistent with the GRSG goals and objectives, and in conformance with BLM Manual 6840, Special Status Species Management. In accordance with BLM Manual 6840, the BLM will undertake planning decisions, actions and authorizations "to minimize or eliminate threats affecting the status of GRSG or to improve the condition of GRSG habitat" across the planning area.

- The BLM has determined that FLPMA does not explicitly mandate or authorize the BLM to require public land users to implement compensatory mitigation as a condition of obtaining authorization for the use of BLM-administered lands (IM 2019-018, Compensatory Mitigation, December 6, 2018). Consistent with that determination, compensatory mitigation must be voluntary unless required by other applicable laws, but the BLM recognizes that state authorities may also require compensatory mitigation.

  To align this planning effort with the BLM's compensatory mitigation policy, IM 2019-018, the amended plans clarify that the BLM will consider compensatory mitigation only when offered voluntarily by a project proponent, when required by a law other than FLPMA; or as a component of compliance with a state mitigation plan, program, or authority, such as required by the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). In accordance with the States goals for managing GRSG, the plans modify the net conservation gain standard for compensatory mitigation to clarify that the BLM would pursue net benefit/net conservation gain as a broader planning goal and objective. This means that the BLM would continue to require avoidance, minimization, and other onsite mitigation to adequately conserve GRSG and its habitat, while remaining committed to implementing beneficial habitat management actions to reduce the threats of fire and invasive species. In fiscal year 2018, the BLM funded approximately $29 million in GRSG management actions resulting in approximately 500,000 acres of treated GRSG habitat and expects to invest another $22.5 million of habitat management projects in fiscal year 2019 in the Great Basin Region.

  The BLM would continue to apply the mitigation hierarchy as described in the CEQ regulations at 40 CFR 1508.20; however, the BLM would focus on avoiding, minimizing, rectifying, and reducing impacts over time. Compensation, which involves replacing or providing substitute resources for the impacts (including through payments to fund such work), would be considered only when voluntarily offered by a proponent, required by a law other than FLPMA, or to meet a States recommendation or requirement. The BLM commits to cooperating with the States to analyze applicant-proposed, state-recommended, or state-imposed compensatory mitigation to offset residual impacts. The BLM remains committed to achieving the planning-level management goals and objectives identified in this ROD and the 2015 Approved RMPA by ensuring GRSG habitat impacts are addressed through implementing mitigating actions consistent with the governing RMPs.

  In all GRSG habitat, before authorizing third-party actions that result in habitat loss and degradation within the State of Nevada, the BLM will complete the following steps, in alignment with the State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended), including avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions:

  1. Notify the State of Nevada's Sagebrush Ecosystem Technical Team to determine if the State requires or recommends any mitigation – including avoidance, minimization, or compensatory mitigation – under State regulations, policies, or programs, such as required by the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), related to the conservation of GRSG.
  2. Incorporate State required or recommended mitigation into the BLM's NEPA decision-making process, if the State of Nevada's Sagebrush Ecosystem Technical Team determines that there are unacceptable residual impacts on GRSG or its habitat and compensatory mitigation is required as a part of State policy or authorization, such as required by the State of Nevada's

Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), or if a proponent voluntarily offers mitigation.

3. Verify that the project proponent has coordinated with the State of Nevada's Sagebrush Ecosystem Technical Team to ensure it complies with the State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended) and all applicable State requirements relating to its proposal.

- The BLM will cooperate with the States to determine appropriate project design and alignment with States' policies and requirements, including those regarding compensatory mitigation, such as the State of Nevada Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). When the BLM is considering compensatory mitigation as a component of the project proponent's submission or based on a requirement of or recommendation from the States, the BLM's NEPA analysis will evaluate the need to avoid or minimize impacts of the proposed project and achieve the goals and objectives of this Approved RMPA. With respect to any State compensatory mitigation requirements, the BLM will defer to the appropriate State authority to quantify habitat offsets, durability, and other aspects used to determine the recommended compensatory mitigation action.
- The BLM will not deny a proposed authorization in GRSG habitat solely on the grounds that the proponent has not proposed or agreed to undertake voluntary compensatory mitigation, unless required by an existing States' authority such as the State of Nevada Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law).
- The BLM will ensure project design is aligned with State requirements—including compensatory mitigation—that may be necessary to comply with the States' policies and programs for the conservation of GRSG. Where compensatory mitigation is required as part of a States' plan, program, or authority, such as the Nevada State Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), the BLM will include the required mitigation in all of its action alternatives in a NEPA analysis.

Allocation Exception Process

- Makes all exceptions to stipulations and land use plan allocations tied to PHMA, GHMA, and OHMA consistent and based on a set of six criteria, which will need to be approved by the BLM State Directors.

Seasonal Timing Restrictions

- Incorporates criteria that will allow line officers (in coordination with Nevada Department of Wildlife and CDFW) to shorten, extend, or waive seasonal restrictions that may be imposed on site specific authorizations to avoid impacts to GRSG during seasonal life cycle periods.

Habitat Objectives

- Clarifies that the habitat objectives (**Table 2-2**) in the 2015 Approved RMPA are desired habitat conditions that are broad goals based on GRSG habitat selection that may not be achievable in all

areas. When making a determination about the ability of a site to achieve the objectives, the BLM should use high quality local or site-specific information, if available, including data related to site potential, ecological site descriptions, and state-and-transition models, etc.
- Ensures that when the BLM periodically modifies the indicators and/or their values associated with the habitat objectives, this will be done in alignment with federal, state, and local partners.

Clarification of Planning Decisions

The following issues required clarification to language in the 2015 Approved RMPA and ROD. The clarifying language is included in the 2019 Approved RMPA to communicate how these issues are being addressed through plan maintenance, policy, or implementation.

Modifying Lek Buffers

- Provides clarification regarding the application of lek buffer-distances.

Changing Requirements for Required Design Features

- Clarifies the application of required design features and opportunities to deviate from them.

Fire and Invasives

- Provides the necessary prioritization of all three aspects of fire management: pre-suppression, suppression, and rehabilitation and ways to expedite on-the-ground treatments to address this present and widespread threat in the Nevada and Northeastern California Sub-region.

Increase Opportunities for Outcome-Based Grazing

- Identifies a number of authorizations to support the development of rigorous and defensible outcome-based grazing.

Land Health Assessments

- Management Decision LG 5 within the existing 2015 Approved RMPA and ROD is clarified to explain that, consistent with applicable laws and regulations, the BLM must complete a permit/lease modification process before implementing MD LG 5, if there would be a conflict within the terms and conditions of the existing livestock grazing permit or lease.

1.3.2 What the ROD and Approved RMPA Provide

The decisions provided in this ROD and Approved RMPA build upon the decisions contained in the 2015 plans. This Approved RMPA provides clarification and consistency with the State of Nevada's Greater Sage-Grouse Conservation Plan and conservation strategies from CDFW for the management decisions summarized in **Section 1.3.1**.

The decisions in this Approved RMPA do not modify all of the existing decisions in the 2015 plans. Only those decisions pertaining to the issues identified in **Section 1.3.1** are affected.

1.3.3 What the ROD and Approved RMPA Do Not Provide

The Approved RMPA does not contain decisions for public lands outside of GRSG HMAs and does not amend land-use decisions pertaining to allowable uses on public lands, except to the extent such uses will apply to GRSG HMAs. The Approved RMPA does not violate or diminish existing valid rights nor contain decisions for mineral estates that are not administered by the BLM. The Approved RMPA decisions for surface estate only apply to BLM-administered lands. In addition, many decisions are not appropriate at this level of planning and are not included in this ROD. For example:

- Statutory requirements: The decision does not change the BLM's responsibility to comply with applicable laws, rules, and regulations;
- National policy: The decision does not change the BLM's obligation, consistent with applicable laws and regulations, to implement to current or future national policy;
- Funding levels and budget allocations: These are determined annually at the national level and are beyond the control of State, District, or Field Offices.

Implementation decisions generally authorize on-the-ground activities, usually at a specific location. They generally require appropriate site-specific consideration and NEPA analysis. Such decisions may be incorporated into broader implementation plans (activity or project plans) or may be stand-alone decisions. This Approved RMPA does not contain any implementation decisions.

1.3.4 Modifications and Clarifications

The Approved RMPA includes minor modifications and clarifications from the Proposed RMPA. These minor modifications and clarifications were made as a result of internal reviews, response to comments, and recommendations provided to the BLM during the Governors' consistency review. These modifications and clarifications are hereby adopted by this ROD.

General Modifications and Clarifications:

- Editorial changes, such as changing should to shall and would to will, to reflect the final decision language;
- Revised the 2015 Approved RMPA to clearly demonstrate how this 2019 Approved RMPA modified the management decisions from 2015. All modifications have been highlighted in grey text or are ~~striked through;~~
- Re-lettered the critical appendices and deleted those that are no longer applicable to the Approved RMPA;
- Revised the compensatory mitigation management decision (MD MIT 1) and the allocation exception management decision pertaining to mitigation (MD SSS 5) to reference BLM Instruction Memorandum 2018-018 (Compensatory Mitigation) and the State of Nevada's Executive Order 2018-32 (order establishing use of the Nevada Greater Sage-Grouse Conservation Plan and Credit System on state and Federal lands).
- Retained Management Decision LG 5 in the Approved RMPA, with the requirement that the BLM must complete a livestock grazing permit/lease modification before implementing the management decision, if there would be a conflict with the terms and conditions of the existing livestock grazing permit or lease.

1.4 ALTERNATIVES CONSIDERED IN THE PROPOSED RMPA AND FINAL EIS

The BLM evaluated two alternatives in detail in the Draft RMPA/EIS: the No-Action Alternative and the Management Alignment Alternative. In the Proposed RMPA/FEIS, the BLM modified the Management Alignment Alternative based on external and internal review of the Draft RMP/EIS to develop the Proposed RMP/FEIS. Summaries of these alternatives are provided below.

1.4.1 No-Action Alternative

Under the No-Action Alternative, management of GRSG HMA in Nevada and northeastern California would have remained the same as identified in the 2015 Approved RMPA. The BLM would not have amended the existing 2019 Approved RMPA regarding GRSG habitat management, and no changes or clarifications regarding GRSG habitat management in Nevada and northeastern California would have occurred.

1.4.2 Management Alignment Alternative

This alternative was derived through coordination with the State of Nevada, CDFW, and cooperating agencies to better align with the State of Nevada's Greater Sage-Grouse Conservation Plan and CDFW's conservation strategies to support conservation outcomes for GRSG. The BLM continued to build upon the 2015 planning effort as envisioned in SO 3353 by collaborating with the States and stakeholders to improve compatibility between federal management plans and other plans and programs at the State level, while ensuring consistency with the BLM's multiple use mission.

1.4.3 Proposed Resource Management Plan Amendment

The Proposed RMPA in the Final EIS was a refinement of the Management Alignment Alternative and was developed based on internal review and comments received on the Draft RMPA/EIS. Changes between the Management Alignment Alternative and the Proposed RMPA included incorporation and refinements to the adaptive management strategy and the inclusion of the Western Association of Fish and Wildlife Agencies (WAFWA) GRSG Management Zone level quantitative cumulative effects analysis. In addition, the Proposed RMPA provided additional language related to compensatory mitigation that further refines and clarifies the coordination that will occur between the BLM and the States when compensatory mitigation for GRSG is warranted.

1.4.4 Environmentally Preferred Alternative

This land use planning effort builds off of the BLM's 2015 plan revisions and amendments for the conservation of the GRSG and its habitat and the 2019 Approved RMPA retains many of the management actions contained in the 2015 decisions, while adding some management flexibility and aligning the BLM's conservation plan with the conservation measures of the State agencies. As reflected in the analysis in the FEIS, the limited management flexibility offered by the alignment alternative and alignment with the State's approach results in effects that are well understood and disclosed in BLM's analysis of impacts on GRSG and other resources in the planning area. As described in more detail below, the 2019 Approved RMPA will enhance cooperation and coordination with the States while reducing inconsistencies between the BLM's land use plans and the State's approach to protecting and conserving GRSG. Harmonizing these efforts will improve the BLM's and the States ability to marshal resources to conserve, enhance, and restore GRSG habitat in an efficient and coordinated manner. Accordingly, neither alternative is "environmentally preferable" to the other as that term is defined in Question 6A of CEQ's 40 most-asked questions regarding NEPA. Moreover, even if the No-Action Alternative were "environmentally preferable", neither FLPMA nor NEPA requires the BLM in this context to maximize the conservation of biological and other natural resources, and selection of the No-Action Alternative would not achieve the

BLM's Purpose and Need for Action to enhance cooperation and coordination with the States while reducing inconsistencies between the BLM's land use plans and the State's approach.

1.5 MANAGEMENT CONSIDERATIONS AND RATIONALE FOR THE DECISION

Furthering the Administration's goals of restoring trust with local communities and responsibly developing our natural resources while easing regulatory burdens, the Bureau of Land Management is issuing this Record of Decision (ROD) amending the land use plan for GRSG habitat management on public lands. The decisions described herein affect resource management plans that guide conservation of sagebrush steppe habitat on BLM-administered public lands in seven Western states. The changes were developed during months of close cooperation with state governments in Wyoming, Nevada, California, Idaho, Oregon, Utah and Colorado to better align BLM plans for managing habitat with state plans for conserving the species.

These changes conform to the Department of the Interior's commitment to collaborate with our neighbors in conserving sagebrush habitats and sage-grouse populations. The planning effort began in 2017 when governors of most of the affected states asked the BLM to revisit existing plans for managing sage-grouse habitat and adapt them to better meet their individual needs. In response, the BLM proposed changes developed in consideration of input from governors and state wildlife agency professionals in the seven affected states, as well as other concerned organizations and individuals, largely through the Western Governors Association's Sage-Grouse Task Force.

These decisions reflect the BLM's determination that greater flexibility was needed to ensure that habitat in each state is managed for the particular needs of its landscapes and communities. This Approved RMPA builds on the measures identified and incorporated into 2015 Approved RMPA to conserve, enhance, and restore GRSG habitat by addressing threats to GRSG and its habitat and providing for consistent management of GRSG between the BLM and the State of Nevada and California. The 2015 Approved RMPA provided a comprehensive, coordinated, and effective conservation strategy for addressing the threats to GRSG. This more focused Approved RMPA improves the management coordination between the BLM, State of Nevada and California for GRSG. The actions taken on BLM management lands will now more clearly complement the State of Nevada's and CDFW's management strategy in order to conserve the species and its habitat.

Over 350 species of plants and wildlife rely on sagebrush steppe ecosystems and coexist with GRSG and may be similarly affected by development or disturbance threats that pose a risk to GRSG habitats; however, nothing in the approved plan lessens the BLM's authority or responsibility to provide for the needs of special status species, including BLM Manual 6840, Special Status Species Management.

This 2019 planning process builds on the 2015 planning process and the BLM identified special status species as an issue for further consideration and analysis. The approved plan will continue to ensure that the BLM complies with its special status species policy, including the commitment to "implement measures to conserve species and their habitats… and promote their conservation and reduce the likelihood and need for such species to be listed pursuant to the ESA." (BLM Manual 6840, Special Status Species Management). In accordance with the Manual, the BLM will continue to undertake planning decisions,

actions and authorizations "to minimize or eliminate threats affecting the status of [GRSG] or to improve the condition of [GRSG] habitat" across the planning area.

1.6 MITIGATION MEASURES

All practicable means to avoid or minimize environmental harm are encompassed in the Approved RMPA and its appendices. Fluid mineral lease stipulations and required design features are included to help avoid and minimize impacts to GRSG and its habitat. Mitigation direction can be found under **MD MIT 1** of the Approved RMPA.

1.7 PLAN MONITORING

BLM planning regulations (43 CFR Part 1610.4-9) call for the monitoring of RMPs on a continual basis with a formal evaluation done at periodic intervals. As the Approved RMPA is implemented, the BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data or support new management techniques and scientific principles. To the extent that such new information or actions address issues covered in this Approved RMPA, the BLM will integrate the data through a process called plan maintenance. This process includes the use of monitoring, which is the repeated measurement of activities and conditions over time with the implied purpose to use this information to adjust management, if necessary, to achieve or maintain resource objectives. BLM planning regulations (43 CFR Part 1610.4-9) call for monitoring RMPs on a continual basis and establishing intervals and standards based on the sensitivity of the resource to the decisions involved. CEQ regulations implementing NEPA state that agencies may provide for monitoring to assure that their decisions are carried out and shall do so in important cases (40 CFR Part 1505.2[c]).

1.8 PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

1.8.1 Public Involvement

The public involvement process, consultation, and coordination conducted for the Approved RMPA are described in Chapter 5 of the Proposed RMPA and Final EIS. As required by regulation, public scoping meetings were conducted following the publication of the NOI to prepare an EIS in the *Federal Register* on October 11, 2017.

A Notice of Availability (NOA) for the Draft RMPA/EIS was published in the *Federal Register* on May 4, 2018. The NOA initiated a 90-day public comment period. The BLM held public comment open houses for the Draft RMPA/EIS on four consecutive evenings in late June and July of 2018: June 26 in Reno/Sparks, NV, June 27 in Ely, NV, June 28 in Elko, NV and July 29 in Alturas, CA. All meetings were from 5:00 to 7:00 PM. The comments received on the Draft RMPA/EIS and BLM's responses are summarized in Appendix G of the Proposed RMPA and Final EIS.

The NOA for the Proposed RMPA and Final EIS was published on December 10, 2018, initiating a 30-day public protest period and a 60-day Governors' Consistency review period. The 30-day protest period ended on January 15, 2019. Fourteen protest letters were received.

1.8.2 Protest Resolution

The BLM's planning regulations at 43 CFR 1610.5-2 allow any person who participated in the planning process and has an interest that may be adversely affected by the BLM's planning decisions to protest

proposed planning decisions within 30-days of when the notice of availability of the Proposed RMPA/FEIS was published in the Federal Register (December 10, 2018). The BLM concluded that it had followed all applicable laws, regulations, and policies and had considered all relevant resource information and public input in developing the Proposed RMPA/FEIS. Each protesting party has been notified in writing of these findings and the disposition of their protests. The BLM resolved the protests without making significant changes to the Proposed RMPA/FEIS, though minor clarifications were made and are summarized in **Section 1.3.4**.

The BLM's decisions on the protests are summarized in the Proposed RMPAs/Final EISs Protest Resolution Reports, which are available on the following BLM website: http://www.blm.gov/wo/st/en/prog/planning/planning_overview/protest_resolution/protestreports.html.

The Office of the BLM Director received 14 timely protest submissions. Thirteen of the protesting parties had standing; however, two submissions were dismissed as they did not contain valid protest points or had standing, pursuant to 43 CFR 1610.5- 2. Valid protest issues addressed in the Protest Resolution Report are as follows:

- Compliance with ESA;
- Compliance with FLPMA;
- Compliance with NEPA;
- Compliance with other laws (e.g., 1872 Mining Law).

1.8.3 Consultation and Coordination

Cooperating Agency Status

The BLM collaborated with numerous agencies, municipalities, and tribes throughout the preparation of this Approved RMPA. The BLM's outreach efforts and collaboration with cooperating agencies are described in Section 5 of the Proposed RMPA/FEIS. Twenty-nine agencies accepted the offer to participate in the planning process as cooperating agencies, with 14 signing memorandums of understanding to formalize the cooperating agency relationship. The BLM formally invited the cooperating agencies to participate in developing the alternatives for this planning and NEPA effort and to provide data and other information related to their agencies responsibilities, goals, mandates, and expertise.

Governor's Consistency Review

The BLM's planning regulations require that RMPs be "consistent with officially approved or adopted resource-related plans, and the policies and procedures contained therein, of other Federal agencies, State and local governments, and Tribes, so long as the guidance and resource management plans also are consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands" (43 CFR 1610.3-2[a]). The general requirement in FLPMA and planning regulations is to coordinate the resource management planning process with plans of other agencies, States, and local governments to the extent consistent with law (see FLPMA Section 202[c][9] and 43 CFR 1610.3-1[a]) and the respective duties to be consistent with both officially approved or adopted plans (to the extent those plans are consistent with Federal law or to the maximum extent practical; see 43 CFR 1610.3-2(a)(b).

The 60-day Governor's consistency review period ended on February 4, 2019. The Governor of Nevada submitted a letter to the BLM Nevada State Director on December 19, 2018, providing recommendations for better aligning the BLM's Proposed RMPA with recent State policies and procedures. On March 7,

2019, the BLM Nevada State Director notified the Nevada Governor as to how his recommendations were incorporated into the Approved RMPA. The Nevada Governor was then given 30 days to appeal the BLM Nevada State Director's decisions to the BLM Nevada Director. Modifications to the Approved RMPA from this process are summarized in **Section 2.4**.

Native American Consultation

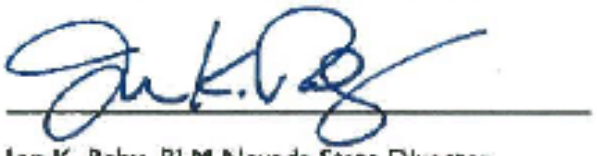
In the fall of 2017, the BLM mailed letters to the tribes identified in **Table 5-1** of the Proposed RMPA/FEIS, inviting them to participate as a cooperating agency for this effort. The Duckwater Shoshone Tribe of the Duckwater Reservation, Walker River Paiute Tribe of the Walker River Reservation, and the Washoe Tribe of Nevada and California formally accepted the BLM's invitation to be cooperating agencies. The Washoe Tribe of Nevada and California executed a Memorandum of Understanding (MOU) with the BLM to be a cooperating agency and also attended and participated in the cooperating agency meeting held on March 21, 2018. On March 28, 2018, the BLM Nevada and California followed up (via email) with those tribes that did not respond to the fall invitation to become cooperators.

1.9 AVAILABILITY OF THE APPROVED RMPA

Copies of the ROD and the Approved RMPA may be obtained by viewing or downloading the document from the BLM website located at **https://goo.gl/uz89cT**.

1.10 APPROVAL

The Nevada and Northeastern California Greater Sage-Grouse Resource Management Plan Amendment is hereby approved by the following signees:



Jon K. Raby, BLM Nevada State Director

March 15, 2019

Date

Joseph Stout, BLM California Acting State Director

3/15/19

Date

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CHAPTER 2. APPROVED RESOURCE MANAGEMENT PLAN AMENDMENT

2.1 GOALS, OBJECTIVES, AND MANAGEMENT DECISIONS

The Approved Resource Management Plan Amendment (Approved RMPA) presents the land use plan goals, objectives, land use allocations, and management actions for protecting and preserving Greater Sage-Grouse (GRSG) and its habitat on BLM-administered lands in Nevada and northeastern California, as approved through the Record of Decision (ROD) in September 2015. Areas highlighted in grey or are ~~striked through~~ display the areas of the 2015 Approved RMPA that have been amended and modified through the 2019 Approved RMPA that is approved through this ROD. These management decisions are presented by program area, and not all types of decisions were identified for each program.

This section is organized by program area, beginning with the special status species program, which identifies specific goals, objectives, and management actions for GRSG and its habitat. For ease of identification into the future, each program area has identified abbreviations (see below) for these program areas, and each decision in that program is numbered in coordination with the abbreviation:

- Special Status Species **(SSS)**
    - Greater Sage-Grouse
    - Disease
    - Predation
    - Modifying Habitat Management Areas
    - Adaptive Management
- Vegetation **(VEG)**
    - Sagebrush Steppe
    - Conifer Encroachment
    - Invasive Species
    - Riparian and Wetlands
- Fire and Fuels Management **(FIRE)**
    - Pre-Suppression
    - Suppression
    - Fuels Management
    - Post-Fire Management
- Livestock Grazing **(LG)**
- Wild Horses and Burros **(WHB)**

- Minerals Resources **(MR)**
    - Fluid Minerals
    - Locatable Minerals
    - Salable Minerals
    - Nonenergy Leasable Minerals
    - Mineral Split-Estate
- Renewable Energy (Wind and Solar; **RE**)
- Lands and Realty **(LR)**
    - Utility Corridors and Communication Sites
    - Land Use Authorizations
    - Land Tenure
    - Recommended Withdrawals
- Recreation and Visitor Services **(REC)**
- Travel and Transportation **(TTM)**
- Cultural Resources **(CUL)**
- Mitigation **(MT)**

Table 2-1 is a summary of the allocation decisions presented for each GRSG Habitat Management Area (HMA) which includes Priority, General and Other HMA (PHMA; GHMA; OHMA). Also see **MD SSS 5** for Allocation Exception Criteria.

Table 2-1
Summary of Allocation Decisions by GRSG Habitat Management Areas

Resource	**PHMA***	**GHMA***	**OHMA***
Land tenure	Retain	Retain	Retain/dispose
Solar	Exclusion	Exclusion	Exclusion
Wind	Exclusion	Avoidance	Open
Major ROWs	Avoidance	Avoidance	Open
Minor ROWs	Avoidance	Open	Open
Oil and gas	Open with major stipulations	Open with moderate stipulations	Open with standard stipulations
Geothermal	Open with major stipulations	Open with moderate stipulations	Open with standard stipulations
Nonenergy leasables	Closed	Open	Open
Salable minerals	Closed	Open	Open

Table 2-1
Summary of Allocation Decisions by GRSG Habitat Management Areas

Resource	PHMA*	GHMA*	OHMA*
Locatable minerals	~~SFA = recommend withdrawal~~ ~~Other PHMA =~~ Open	Open	Open
Travel management	Limited	Limited	Open
Livestock grazing	Available	Available	Available

*Site specific projects may qualify for an exception to these allocations decisions if they meet one of the criteria for allocation exceptions found in **MD SSS 5**.

2.1.1 Special Status Species (SSS)

Goal SSS 1: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend on in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners.

Objective SSS 1: Manage land resource uses to meet GRSG habitat objectives, as described in **Table 2-2**. The habitat objectives will be used to evaluate management actions that are proposed in GRSG HMA. Managing for habitat objectives will ensure that habitat conditions are maintained if they are currently meeting objectives or if habitat conditions move toward these objectives in the event that current conditions do not meet these objectives.

Table 2-2
Habitat Objectives for GRSG

Attribute	Indicators	Desired Condition (Habitat Objectives)	Reference
GENERAL/LANDSCAPE-LEVEL[1]			
All life stages	Rangeland health assessments	Meeting all standards[2]	
Cover (nesting)	Seasonal habitat needed	>65% of the landscape in sagebrush cover	Aldridge and Boyce 2007
	Annual grasses	<%5	Blomberg et al. 2012
Security (nesting)	Conifer encroachment	<3% phase I (>0 to <25% cover) No phase II (25 to 50% cover) No phase III (>50% cover)	Casazza et al. 2011 USGS (in prep A)
Cover and food (winter)	Conifer encroachment	<5% phase I (>0 to <25% cover) No phase II (25 to 50% cover) No phase III (>50%)	USGS (in prep A) USGS (in prep B)
	Sagebrush extent	>85% sagebrush land cover	USGS (in prep A) Doherty et al. 2008

Attribute	Indicators	Desired Condition (Habitat Objectives)	Reference
LEK (Seasonal Use Period: March 1 to May 15)[1]			
Cover	Availability of sagebrush cover	Has adjacent sagebrush cover	Blomberg et al. 2012 Connelly et al. 2000 Stiver et al. 2015 (in press) HAF
Security[3]	Pinyon or juniper cover	<3% landscape cover within .6 mile of leks	Connelly et al. 2000 (modified) Stiver et al. 2015 (in press) HAF
	Proximity of tall structures[4]	Use Manier et al. 2014-Conservation Buffer Distance Estimates for GRSG-A Review; preference is 3 miles	Baruch-Mordo et al. 2013 Coates et al. 2013 Manier et al. 2014
NESTING (Seasonal Use Period: April 1 to June 30)[1]			
Cover	Sagebrush cover	≥20%	Kolada et al. 2009a, 2009b
	Residual and live perennial grass cover (such as native bunchgrasses)	≥10% if shrub cover is <25%[5]	Coates et al. 2013 Coates and Delehanty 2010 Kolada et al. 2009a, 2009b
	Annual grass cover	<5%	Lockyer et al. (in press)
	Total shrub cover	≥30%	Coates and Delehanty 2010 Kolada et al. 2009a Lockyer et al. (in press)
	Perennial grass height (includes residual grasses)	Provide overhead and lateral concealment from predators	Connelly et al. 2000, 2003 Hagen et al. 2007; Stiver et. al. 2015 (in press) HAF
Security[2]	Proximity of tall structures[4] (3 feet [1 meter] above shrub)	Use Manier et al. 2014, Conservation Buffer Distance Estimates for GRSG-A Review; preference is 3 miles	Coates et al. 2013 Gibson et al. 2013 Manier et al. 2014
BROOD-REARING/SUMMER (Seasonal Use Period: May 15 to September 15; Early: May 15 to June 15; Late: June 15 to September 15)[1]			
UPLAND HABITATS			
Cover	Sagebrush cover	10 to 25%	Connelly et al. 2000
	Perennial grass cover and forbs	>15% combined perennial grass and forb cover	Connelly et al. 2000 Hagen et al. 2007
	Deep rooted perennial bunchgrass (within 522 feet [200 meters] of riparian areas and wet meadows)	7 inches[6, 7]	Hagen et al. 2007 Casazza et al. 2011
Cover and food	Perennial forb cover	≥5% arid ≥15% mesic	Casazza et al. 2011 Lockyer et al. (in press)
RIPARIAN/MEADOW HABITATS			
Cover and food	Riparian areas/meadows	PFC	Dickard et al. 2014 Prichard et al. 1998, 1999 Stiver et al. 2015 (in press) HAF
Security	Upland and riparian perennial forb availability	Preferred forbs are common with several species present[6]	Stiver et al. 2015 (in press) HAF

	and understory species richness	• High species richness (all plants)	
	Riparian area/meadow interspersion with adjacent sagebrush	Has adjacent sagebrush cover	Casazza et al. 2011 Stiver et al. 2015 (in press) HAF
WINTER (Seasonal Use Period: November 1 to February 28)[1]			
Cover and Food	Sagebrush cover	≥10% above snow depth	Connelly et al. 2000 USGS (in prep C)
	Sagebrush height	>9.8 inches above snow depth	Connelly et al. 2000 USGS (in prep C)

[1]Any one single habitat indicator does not define whether the habitat objective is or is not met. Instead, the preponderance of evidence from all indicators within that seasonal habitat period must be considered when assessing GRSG habitat objectives.
[2] Upland standards are based on indicators for cover, including litter, live vegetation, and rock, appropriate to the ecological potential of the site.
[3] Applicable to Phase I and Phase II pinyon and/or juniper.
[4]Does not include fences.
[5]In addition, if upland rangeland health standards are being met.
[6] Relative to ecological site potential.
[7]In drought years, 4-inch perennial bunchgrass height with greater than 20 percent measurements exceeding 5 inches in dry years.

Table 2-2 will be periodically revised to incorporate the best available science in coordination with the SETT, USFWS, NDOW, CDFW, USFS, USGS, University of Nevada, Reno, University of California, and appropriate local agencies, and the BLM. The team will periodically review and incorporate the best available science and will recommend adjustments based on locally derived data. As **Table 2-2** is updated, adjustments will be made by the BLM through plan maintenance or amendment, as appropriate.

Table 2-2 will be implemented following this guidance: The habitat objectives are desired habitat conditions that are broad goals based on GRSG habitat selection that may not be achievable in all areas. The ability of a site to achieve the objectives shall be based on site potential, ecological site descriptions, state-and-transition models, etc.

Table 2-2 includes a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that GRSG select. While the habitat objectives are not attainable on every site or every acre within GRSG HMAs, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM shall consider the ecological site potential within GRSG HMAs to validate the habitat conditions achievable for a specific site.

The seasonal habitat descriptions in **Table 2-2** vary across the range of GRSG, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for GRSG. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing GRSG local data or if new science indicates that GRSG select for vegetation structure and composition in seasonal habitats not characterized by the values in **Table 2-2**. In these cases, it may be appropriate to adjust the values. Habitat objectives shall be evaluated in the context of annual variability in ecological conditions and shall not be used singly to determine habitat suitability for GRSG. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of GRSG conservation, or when identifying limiting habitat characteristics for a given area.

The indicators, characteristics, values and desired seasonal habitat conditions in **Table 2-2** are to be incorporated into the Sage-Grouse Habitat Assessment Framework (Stiver et al. 2015; HAF) Site-Scale forms (4th Order) and are meant to inform the wildlife habitat component of the Land Health Standards (LHS) evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation shall be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and LHS.

Objective SSS 2: Maintain or improve connectivity between, to, and in PHMAs and GHMAs to promote movement and genetic diversity for GRSG population persistence and expansion.

Objective SSS 3: Identify and implement GRSG conservation actions that can augment, enhance, or integrate program conservation measures established in agency and state land use and policy plans, to the extent consistent with applicable law.

Objective SSS 4: When authorizing third-party actions in designated GRSG HMAs, the BLM will apply avoidance and minimization measures to reduce impacts, while seeking to achieve the planning-level goals and objectives for GRSG and its habitat, consistent with valid existing rights and applicable law. Management will be consistent with the GRSG goals and objectives, and in conformance with BLM Manual 6840, Special Status Species Management. Specifically, the BLM will authorize uses of the public lands that are consistent with the policy in BLM Manual 6840 and therefore "minimize or eliminate threats affecting the status of [GRSG]" or "improve the condition of [GRSG] habitat."

~~In PHMAs and GHMAs, apply the concept of "avoid, minimize, and compensatory mitigation" for all human disturbance in areas not already excluded or closed, so as to avoid adverse effects on GRSG and its habitat. The first priority will be to avoid new disturbance; where this is not feasible, the second priority will be to minimize and mitigate any new disturbance (**Appendices F** and **I**).~~

Management Decisions (MD)

MD SSS 1: In PHMAs and GHMAs, work with the proponent/applicant, whether in accordance with a valid existing right or not, and use the following screening criteria to avoid effects of the proposed human activity on GRSG habitat[1]:

A. First priority—locate project/activity outside PHMAs and GHMAs;

B. Second priority—if the project/activity cannot be placed outside PHMAs and GHMAs, locate the surface-disturbing activities in non-habitat areas first, then in the least suitable habitat for GRSG. In non-habitat, ensure the project/activity will not create a barrier to movement or connectivity between GRSG seasonal habitats and populations;

C. Third priority—collocate the project/activity next to or in the footprint of existing infrastructure.

[1]The screening criteria is not applicable to vegetation treatments being conducted to enhance GRSG habitat, with the exception of seasonal timing restrictions and noise.

MD SSS 2: In PHMAs, the following conditions will be met in order to avoid and minimize impacts to GRSG and its habitat. The BLM will consider compensatory mitigation actions only when offered voluntarily by a project proponent; when required by law other than FLPMA or as a component of compliance with a States' mitigation plan, program, or authority, such as required by the State of Nevada Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law) ~~and mitigate any effects on GRSG and its habitat from the project/activity~~:[2]

A. Manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3 percent of: 1) biologically significant units (BSUs; total PHMA associated with a GRSG population area **[see Appendix A; Figure 2-2]**) and 2) in a proposed project analysis area. See **Appendix F** (Disturbance Cap Guidance) for additional information on implementing the disturbance cap, including what is and is not considered disturbance and how to calculate the proposed project analysis area, as follows:

   1. If the 3 percent human disturbance cap is exceeded on all lands (regardless of ownership) in PHMAs in any given BSU, then no further discrete human disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, as amended, and valid existing rights) will be permitted, by the BLM within PHMA in any given BSU until the disturbance has been reduced to less than the cap (see Nevada exception under MD SSS 2 A. 2a).

   2. If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in PHMA, then no further anthropogenic disturbance will be permitted by the BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the 1872 Mining Law, as amended, valid existing rights; see Nevada exception under MD SSS 2 A. 2a.).

      a. For BLM land in the state of Nevada only, the following disturbance management protocol is intended to provide for a 3 percent limitation on disturbance, except in situations where a net conservation gain to the species is achieved as a component of compliance with a state mitigation plan, program, or authority, such as required by the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law).

      - ~~Such discretionary activities that would cause disturbances in excess of 3 percent at the project or BSU scale (see **Appendix E**) will be prohibited, unless a technical team described below determines that new or site-specific information indicates the project can be modified to result in a net conservation gain at the BSU level. Factors considered by the team will include GRSG abundance and trends, habitat amount and quality, extent of project disturbance, location and density of existing disturbance, project design options and other biological factors.~~

[2]The conditions will not be applicable to vegetation treatments being conducted to enhance GRSG habitat, with the exceptions of seasonal restrictions and noise.

- ~~Any exceptions to the 3 percent disturbance limitation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the NDOW, the USFWS, and the BLM unanimously find that the proposed action satisfies the conditions stated in the above paragraph. Such finding shall initially be made by the technical team, which consists of a field biologist or other GRSG experts from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the BLM State Director, USFWS State Ecological Services Director and NDOW Director for final resolution. In the event their finding is not unanimous, the exception will not be granted (**Appendix E**).~~

3. For BLM land in the state of California only, subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of land ownership) in PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by the BLM: 1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or 2) unless the energy or mining facility is co-located into an existing disturbed area. Energy and mining facilities to which this action applies are:
    - Oil and gas wells and development facilities.
    - Wind towers
    - Geothermal wells/developments, and
    - Active locatable, leasable, and salable developments.
4. For proposed projects to be located, within existing designated utility corridors, the 3 percent disturbance cap may be exceeded at the project scale if a net conservation gain to the species will be achieved, as a component of compliance with a State's mitigation plan, program, or authority, such as required by the State of Nevada Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). This exception is limited to projects which fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines, etc.) and the designated width of a corridor will not be exceeded as a result of any project co-location.

B. See **MD MIT 1**.

~~In PHMA, in undertaking BLM management actions, and consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. The project/activity with associated mitigation (such as the use of the State of Nevada Conservation Credit System) will result in an overall net conservation gain to GRSG (see **Appendix F**).~~ Authorized/permitted activities are implemented by adhering to the Required Design Features (RDFs) described in **Appendix C**, consistent with applicable law. At the site-specific scale, if an RDF is not implemented, at least one of the following must be demonstrated in the NEPA analysis associated with the project/activity:

1. A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to the site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable.
2. An alternative RDF is determined to provide equal or better protection for GRSG or its habitat.
3. A specific RDF will provide no additional protection to GRSG or its habitat.

C. In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will utilize the lower end of the interpreted range of lek buffer-distances and guidance identified in Mainer et al. (2014) to establish the evaluation area around leks that will be used to analyze impacts during project-specific NEPA, including scientifically justifiable departures based on local data, topography, and other factors, in accordance with **Appendix B**.

~~In management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS report, Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review Open File Report 2014-1239 (Manier et al. 2014), in accordance with **Appendix B**.~~

D. Seasonal restrictions will be applied during the period specified below to manage discretionary surface-disturbing activities and uses on public lands (i.e., anthropogenic disturbances) that are disruptive to GRSG, to prevent disturbances to GRSG during seasonal life-cycle periods:

1. In breeding habitat within 4 miles of active and pending GRSG leks from March 1 through June 30
    a. Lek—March 1 to May 15
    b. Lek hourly restrictions—6 p.m. to 9 a.m.
    c. Nesting—April 1 to June 30
2. Brood-rearing habitat from May 15 to September 15
    a. Early—May 15 to June 15
    b. Late—June 15 to September 15
3. Winter habitat from November 1 to February 28

The seasonal dates could be modified or waived (in coordination with NDOW and/or CDFW) based on site-specific information that indicates:

i. A project proposal's NEPA document and/or project record, and correspondence from NDOW and/or CDFW demonstrates that any modification (shortening/extending seasonal timeframes or waiving the seasonal timing restrictions altogether) is justified on the basis that it serves to better protect or enhance GRSG and its habitat than if the seasonal timing restrictions are implemented. Under this scenario modifications can occur if:
    a. A proposed activity will have beneficial or neutral impacts on GRSG.
    b. Topography or other factors eliminate direct and indirect impacts from visibility and audibility to GRSG and its habitat.

c. There are documented local variations (e.g., higher/lower elevations) and/or annual climatic fluctuations (e.g., early/late spring, long/heavy winter) that indicate the seasonal Life cycle periods are different than presented, or that GRSG are not using the area during a given seasonal life cycle period.

ii. Modifications are needed to address an immediate public health and safety concern in a timely manner (e.g., maintaining a road impacted by flooding).

iii. The proposed action is determined to be a routine administrative function conducted by federal, state or local governments, including prior existing uses, authorized uses, valid existing rights and existing infrastructure (i.e., rights-of-way for roads) that serve a public purpose and will have no adverse impacts on GRSG or its habitat.

~~The seasonal dates may be modified due to documented local variations (e.g., higher/lower elevations) or annual climatic fluctuations (e.g., early/late spring, long/heavy winter), in coordination with NDOW and California Department of Fish and Wildlife (CDFW), in order to better protect GRSG and its habitat.~~

E. Authorizations and permits will limit noise from discretionary activities (during construction, operation, and maintenance) to not exceed 10 decibels above ambient sound levels at least 0.25 mile from active and pending leks, from 2 hours before to 2 hours after sunrise and sunset during the breeding season. See **Appendix G**, Greater Sage-Grouse Noise Protocol.

MD SSS 3: In GHMAs, the following conditions will be met: ~~in order to avoid, minimize, and mitigate any effects on GRSG or its habitat from the project/activity:~~[3]

A. See **MD MIT 1**.

~~In GHMAs, in undertaking BLM management actions, and consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. The project/activity with associated mitigation (such as the use of the State of Nevada Conservation Credit System) in GHMAs will result in an overall net conservation gain to GRSG (see **Appendix F**, Regional Mitigation Strategy).~~

B. Authorized/permitted activities are implemented adhering to the RDFs described in **Appendix C**, consistent with applicable law. At the site-specific scale, if an RDF is not implemented, at least one of the following must be demonstrated in the NEPA analysis associated with the project/activity:

1. A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to the site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable.

2. An alternative RDF is determined to provide equal or better protection for GRSG or its habitat.

3. A specific RDF will provide no additional protection to GRSG or its habitat.

[3]The conditions will not be applicable to vegetation treatments being conducted to enhance GRSG habitat, with exceptions for seasonal restrictions and noise.

C. In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will utilize the lower end of the interpreted range of lek buffer-distances and guidance identified in Mainer et al. (2014) to establish the evaluation area around leks that will be used to analyze impacts during project-specific NEPA, including scientifically justifiable departures based on local data, topography, and other factors, in accordance with **Appendix B**.

~~In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS report, Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review Open File Report 2014-1239 (Manier et.al 2014]), in accordance with **Appendix B**.~~

D. Seasonal restrictions will be applied during the period specified below to manage discretionary surface-disturbing activities and uses on public lands (i.e. anthropogenic disturbances) that are disruptive to GRSG, to prevent disturbing GRSG during seasonal life cycle periods, as follows:

1. In breeding habitat within 4 miles of active and pending GRSG leks from March 1 through June 30
    a. Lek—March 1 to May 15
    b. Lek hourly restrictions—6 p.m. to 9 a.m.
    c. Nesting—April 1 to June 30
2. Brood-rearing habitat from May 15 to September 15
    a. Early—May 15 to June 15
    b. Late—June 15 to September 15
3. Winter habitat from November 1 to February 28

The seasonal dates could be modified or waived (in coordination with NDOW and/or CDFW) based on site-specific information that indicates:

i. A project proposal's NEPA document and/or project record, and correspondence from NDOW and/or CDFW, demonstrates that any modification (shortening/extending seasonal timeframes or waiving the seasonal timing restrictions altogether) is justified on the basis that it serves to better protect or enhance GRSG and its habitat than if the seasonal timing restrictions are implemented. Under this scenario modifications can occur if:
    a. A proposed activity will have beneficial or neutral impacts on GRSG.
    b. Topography or other factors eliminate direct and indirect impacts from visibility and audibility to GRSG and its habitat.
    c. There are documented local variations (e.g., higher/lower elevations) and/or annual climatic fluctuations (e.g., early/late spring, long/heavy winter) that indicate the seasonal life cycle periods are different than presented, or that GRSG are not using the area during a given seasonal life cycle period.

ii. Modifications are needed to address an immediate public health and safety concern in a timely manner (e.g., maintaining a road impacted by flooding).

iii. The proposed action is determined to be a routine administrative function conducted by federal, state or local governments, including prior existing uses, authorized uses, valid existing rights and existing infrastructure (i.e., rights-of-way for roads) that serve a public purpose and will have no adverse impacts on GRSG or its habitat.

~~The seasonal dates may be modified due to documented local variations (e.g., higher/lower elevations) or annual climatic fluctuations (e.g., early/late spring, long/heavy winter), in coordination with NDOW and CDFW, in order to better protect GRSG and its habitat.~~

iv. Authorizations and permits will limit noise from discretionary activities (during construction, operation, and maintenance) to not exceed 10 decibels above ambient sound levels at least 0.25 mile from active and pending leks from 2 hours before to 2 hours after sunrise and sunset during the breeding season. See **Appendix G**, Greater Sage-Grouse Noise Protocol.

MD SSS 4: In OHMAs, authorized/permitted activities are implemented adhering to the RDFs described in **Appendix C,** consistent with applicable law. At the site-specific scale, if an RDF is not implemented, at least one of the following must be demonstrated in the NEPA analysis associated with the project/activity:

- A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to the site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable.
- An alternative RDF is determined to provide equal or better protection for GRSG or its habitat.
- A specific RDF will provide no additional protection to GRSG or its habitat.

MD SSS 5 (Allocation Exception Criteria): In PHMA, GHMA, and OHMA, the State Director may grant an exception to the allocations and stipulations described in **Table 2-1**: Comparative Summary of Alternatives if one of the following applies (in coordination with NDOW, SETT, and/or CDFW):

i. The location of the proposed activity is determined to be unsuitable[4] (by a biologist with GRSG experience using methods such as Stiver et. al. 2015) and lacks the ecological potential to become marginal or suitable habitat; and will not result in direct, indirect, or cumulative impacts on GRSG and its habitat. Management allocation decisions will not apply to those areas determined to be unsuitable if the area has passed a threshold and lacks the ecological potential to become marginal or suitable habitat.

ii. The proposed activities impacts will be offset to result in no adverse impacts on GRSG or its habitat, through use of the mitigation hierarchy and the State's mitigation policies and programs, such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). In cases where exceptions may be granted for projects with a residual impact, voluntary compensatory mitigation consistent with the State's mitigation policies and programs, such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law) will be one mechanism by which a proponent achieves the Approved RMPA goals, objectives, and exception criteria. When a proponent volunteers compensatory mitigation as their chosen approach to address residual impacts, the BLM will incorporate those actions into the rationale used to grant an exception. The

[4] Definitions for Suitable, Marginal and Unsuitable GRSG habitat are derived from the Sage-Grouse Habitat Assessment Framework (Stiver et al. 2015) using the 4th Order or Site-Scale Assessments.

final decision to grant a waiver, exception, or modification will be based, in part, on criteria consistent with the State's GRSG management plans and policies.

iii. The proposed activity will be authorized to address public health and safety concerns, specifically as they relate to federal, state, local government and national priorities.

iv. Renewals or re-authorizations of existing infrastructure in previously disturbed sites or expansions of existing infrastructure that do not result in direct, indirect, or cumulative impacts on GRSG and its habitat.

v. The proposed activity is determined to be a routine administrative function conducted by federal, state or local governments, including prior existing uses, authorized uses, valid existing rights and existing infrastructure (i.e., rights-of-way for roads) that serve a public purpose and will have no adverse impacts on GRSG and its habitat, consistent with the State's mitigation policies and programs, such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law).

vi. Exceptions to non-disposal or exchange of lands that are identified for retention in **Appendix A, Figure 2-12** could be considered if (a) they are identified for disposal through previous planning efforts or address a Congressional Act (e.g., the respective Lincoln and White Pine County Conservation, Recreation, and Development Acts), (b) the agency can demonstrate that the disposal, including land exchanges, will have no adverse direct, indirect or cumulative impacts on GRSG and its habitat, or (c) adverse impacts on GRSG or its habitat will be offset, through use of voluntary compensatory mitigation, consistent with the States' mitigation policies and programs, such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law).

~~**MD SSS 5:** Designate SFA. (2,797,400 acres). SFA will be managed as PHMAs, with the following additional management:~~

- ~~Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights~~
- ~~Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing~~
- ~~Prioritized for vegetation management and conservation actions in these areas, including, but not limited to land health assessments, wild horse and burro management actions, review of livestock grazing permits/leases, and habitat restoration (see specific management sections).~~

MD SSS 6: Cooperate with federal and state agencies, universities, and other organizations to establish and maintain a GRSG telemetry database.

MD SSS 7: Work with project proponents to limit project-related noise, seasonally or annually (see MDs SSS 2 and SSS 3), in GRSG habitat where it will be expected to reduce functionality of habitats that support associated GRSG populations. Support the establishment of ambient baseline noise levels for leks in PHMAs and GHMAs.

As additional noise-related research and information emerge, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate measures will be implemented where necessary to minimize the potential for noise impacts on GRSG populations.

MD SSS 8: As determined by the BLM in coordination with NDOW or CDFW, for any surface-disturbing activities involving mineral activities (to the extent possible under existing law) and rights-of-way actions proposed in PHMAs and GHMAs, the proponent will use the services of a qualified biologist approved by the BLM to conduct surveys for GRSG breeding activity during the GRSG breeding season before project activities begin. The surveys must encompass all suitable GRSG habitats within a minimum of 4 miles of the proposed activities. Surveys will be conducted following protocols established by state fish and wildlife agencies during planning operations and during project activities. GRSG seasonal habitat delineations will also be required within a minimum of 4 miles of project activities.

MD SSS 9a: See **MD MIT 1**.

~~In Nevada only, the BLM will consult with the Sagebrush Ecosystem Technical Team (SETT) for application of the "avoid, minimize, and compensate" mitigation strategy and the Conservation Credit System developed by the Nevada Natural Heritage Program and the SETT (2014a, 2014b) or other applicable mitigation system such as outlined in **Appendix I**. This will be to ensure that a net conservation gain of GRSG habitat is achieved in mitigating human disturbances in PHMAs and GHMAs (see **Appendix F**) on all agency-authorized activities. The specifics of the coordination will be identified in an MOU between the agencies.~~

MD SSS 9b: See **MD MIT 1**. ~~In California only, the BLM will follow the BLM mitigation strategy outlined in **Appendix F**.~~

MD SSS 10: When necessary or as new data becomes available, site-specific NEPA analysis on use authorizations in PHMA and GHMA will include project level adaptive management responses to address changed conditions in GRSG habitat and population trends.

MD SSS 11: Design and construct fences consistent with BLM H-1741-1, Fencing Standards Manual (BLM 1990), and apply the Sage-Grouse Fence Collision Risk Tool to Reduce Bird Strikes (NRCS 2012). Bring existing fencing into compliance as opportunities arise.

Disease

Objective SSS 5: Coordinate with state agencies to monitor trends of diseases, such as West Nile virus, in the subregion to determine if mitigation or additional RDFs need to be applied (consistent with applicable law) to use authorizations.

MD SSS 12: When developing or modifying water developments on BLM-administered lands in PHMAs, GHMAs, and OHMAs and in accordance with state water law and subject to valid existing rights, use applicable RDFs consistent with applicable law to mitigate potential impacts from West Nile virus. Bring existing water developments into compliance as opportunities arise.

Predation

Objective SSS 6: Manage human uses on public lands to reduce the effects of predation on GRSG.

MD SSS 13: Require authorizations to include stipulations and RDFs consistent with applicable law to reduce or eliminate opportunities to attract and provide nesting, cover, or perches for predators in PHMAs and GHMAs.

MD SSS 14: Coordinate with other federal, state, county, and tribal governments and local working groups to reduce GRSG deaths due to predation where it is determined to be additive or is a limiting factor influencing GRSG populations.

MD SSS 15: Reduce and eliminate artificial hunting perches and nesting surfaces for aerial predators (e.g., remove fences, nonworking fences, and power lines and install anti-perch devices on existing and new power lines).

Modifying Habitat Management Area Boundaries

MD SSS 16: PHMA, GHMA, and OHMA boundaries are based on composite management categories contained within USGS's *Spatially Explicit Modeling of Annual and Seasonal Habitat for Greater Sage-Grouse (Centrocercus urophasianus) in Nevada and Northeastern California—an updated decision-support tool for management* (Coates et al. 2016), as adopted and modified by the State of Nevada on December 11, 2015 (see **Appendix A: Maps**).

- Manage 9,265,800 acres as PHMA
- Manage 5,748,000 acres as GHMA
- Manage 4,868,900 acres as OHMA BLM recognizes that landscape level mapping may not accurately reflect on-the-ground conditions. Therefore, the HMAs (**Figure 2-1**) do not constitute a land use plan decision but rather a landscape level reference of relative habitat suitability. When a proposed project is thought to be in an area that is unsuitable for GRSG within PHMA, GHMA, and/or OHMA, habitat assessments of the project site and its surrounding areas will be conducted by a biologist with GRSG experience using BLM-approved methods such as Stiver et al. 2015 and compliant with current BLM policy, to identify suitable, marginal, or unsuitable GRSG habitats at multiple scales. This habitat assessment process will inform criteria (i) under Issue: Allocation Exception Process, Management Alignment Alternative and Proposed Plan Amendment. The BLM will track all on-the-ground assessments and share this information with USGS and the States of Nevada and California to consider when updating HMA maps in the future.

MD SSS 17: Consistent with the State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended) and CDFW's management recommendations, the HMA mapping process will be reviewed and refined every 3 to 5 years, or when new data are incorporated in the model. New or improved spatial data (e.g., additional GRSG telemetry data, updated or improved vegetation community data) will be incorporated during the refinement process. The review and refinement process will be scientifically based and include review and input from the Sagebrush Ecosystem Technical Team (SETT), NDOW, BLM, USFS, USFWS, and local agencies as appropriate. For refinements in California, this process will also include CDFW. Other stakeholders will be encouraged to participate in the process by submitting relevant information to the listed agencies. The USGS' habitat suitability modeling processes (Coates et al. 2016) will be the basis for future refinements, which may include results of BLM habitat suitability determinations shared with the USGS for their consideration. As these HMAs boundaries are adjusted and approved by the States of Nevada[5] and California, adjustments to the BLM's PHMA, GHMA, and/or OHMA boundaries

[5] The State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended) refers to Sage-grouse Management Areas (SGMA) as the spatial extent of Greater Sage-Grouse management in Nevada. For the State of Nevada, the purpose of the SGMA is to initiate consultation with the SETT in regards to the use of the State's Conservation Credit System. The BLM's HMAs are not equivalent to the SGMAs, but rather, are equivalent to the State of Nevada's "Management Categories," which are displayed on Figure 4 of the State Plan. For the State of Nevada, the approval of new iterations of their management categories are approved through the State's Sagebrush Ecosystem Council (SEC). SEC meetings are open to the public and are subject to the State of Nevada's open meeting laws. It is also important to note that the BLM's HMAs are not equivalent to identified biologically significant units (BSUs), as BSUs are one of three scales used to assess adaptive management population triggers. For more information regarding BSUs, see Appendix D.

(along with the existing allocation decisions and management actions tied to these areas) will be made by the BLM through plan maintenance or amendment, as appropriate.

~~As site-specific GRSG data (habitat assessments, lek counts, telemetry, etc.) is collected, the information will be included into future modeling efforts using the "*Spatially Explicit Modeling of Greater Sage-Grouse Habitat in Nevada and Northeastern California*" (Coates et al. 2014) to reflect the most up-to-date spatial representation of GRSG habitat categories. Through plan maintenance or plan amendment/revision, as appropriate, and in consultation with the Nevada Department of Wildlife and USFWS, based on the best scientific information, the updated modeling efforts may be adopted and appropriate allocation decisions and management actions will be applied to PHMA, GHMA, and OHMA. Future modeling efforts to incorporate site-specific GRSG data will utilize the same modeling methods (as described under *Methods and Results* in Coates et al. 2014) used to develop the current Nevada and Northeastern California Subregions' GRSG habitat management categories. The addition of site-specific GRSG data will allow for the refinement of the spatial representation of the GRSG habitat management categories.~~

Adaptive Management (Also see Appendix D)

MD SSS 18: The BLM will implement the Adaptive Management Strategy as described in **Appendix D**. The revised soft and hard population triggers, warnings, and new BSU and lek cluster boundaries were derived from USGS's *Hierarchical Population Monitoring of Greater Sage-Grouse (Centrocercus urophasianus) in Nevada and California— Identifying Populations for Management at the Appropriate Spatial Scale: U.S. Geological Survey Open-File Report 2017– 1089* (Coates et al. 2017). These triggers, warnings, BSU boundaries, and lek cluster boundaries can be found in **Appendix D**. Soft and hard trigger responses will be removed when the criteria for recovery have been met (see **Appendix D**, Longevity of Responses). Removal of the soft and hard trigger responses returns management direction in the affected lek cluster and/or BSU to the management directions that were in place prior to reaching a trigger.

~~A BSU **(see Appendix A; Figure 2-2)** that has hit a soft trigger due to vegetation disturbance will be a priority for restoration treatments consistent with Fire and Invasives Assessment Tool (FIAT) (**Appendix J**).~~

~~**MD SSS 19:** If a soft trigger is reached, the BLM will identify the causal factor and apply additional project-level adaptive management and/or mitigation measures contained in the authorization (and for future similar authorizations), to alleviate the specific or presumptive causes in the decline of GRSG populations or its habitats and include the following:~~

- ~~The adjustment in management would be based on the causal factor and would affect only the area being impacted in the lek cluster or other appropriate scale (e.g., BSU)~~
- ~~GRSG populations and habitat would continue to be monitored annually~~
- ~~If the causal factor were not readily discernible, then an interdisciplinary team, including the BLM, Forest Service (as applicable), and state wildlife agency representatives, would identify the appropriate mitigation or adjusted management actions in a timely manner~~

~~**MD SSS 20:** Once a hard trigger has been reached, all responses in **Table J-1** and **Table J-2** in **Appendix J** will be implemented. This includes where soft triggers have been reached for both population and habitat.~~

~~**MD SSS 21:** When a hard trigger is hit in a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone GRSG Conservation Team will convene to determine the cause, will put project level responses in place, as appropriate, and will discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs in the PAC and will invoke the appropriate plan response. Adopting any further actions at the plan level may require initiating a plan amendment process.~~

MD SSS 22: As determined by the BLM in coordination with the state wildlife agencies, for any surface-disturbing activities involving mineral activities and rights-of-way actions (with the possible exception of short duration activities outside of seasonal GRSG habitats) BLM will require that active and pending leks be monitored annually within 4 miles of disturbance until the use terminates and all disturbances have been restored. The proponent will fund the services of an independent qualified biologist approved by the BLM, in coordination with NDOW or CDFW, consistent with applicable law.

MD SSS 23: In making amendments to this plan, the BLM will coordinate with the FWS as the BLM continues to meet its objective of conserving, enhancing and restoring GRSG habitat by reducing, minimizing or eliminating threats to GRSG and its habitat.

~~**MD SSS 24:** The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD and then at a minimum, analyzed annually thereafter.~~

2.1.2 Vegetation (VEG)

Sagebrush-steppe

Objective VEG 1: In ~~SFA and~~ PHMAs, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).

Objective VEG 2: On public lands, establish, maintain, and enhance a resistant and resilient sagebrush vegetative community and restore sagebrush vegetation communities to reduce GRSG habitat fragmentation and maintain or reestablish GRSG habitat connectivity over the long term (Chambers et al. 2014).

Objective VEG 3: Manage PHMAs and GHMAs for vegetation composition and structure, consistent with ecological site potential and to achieve GRSG habitat objectives (**Table 2-2**).

Management Decisions (MD)

MD VEG 1: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD VEG 2: Incorporate GRSG habitat objectives (**Table 2-2**) in the design of habitat restoration projects and manage treated areas to meet GRSG habitat objectives.

MD VEG 3: Use BLM GRSG habitat maps, habitat objectives (see **Table 2-2** for GRSG habitat objectives), ecological site potential, state and transition models, and concepts of resistance and resilience

(**Appendix H**) to prioritize habitat restoration projects, including those following wildfire, to address the most limiting GRSG habitat vegetation components and to connect seasonal ranges.

Habitat restoration includes the following:

i. Restoring sagebrush canopy in PHMAs and GHMAs to meet GRSG habitat objectives (**Table 2-2**)

ii. Reestablishing perennial grasses and native forbs in PHMAs and GHMAs

iii. Reducing or removing pinyon or juniper in PHMAs and GHMAs to enhance seasonal range connectivity and to maintain sagebrush canopy and understory integrity

iv. Restore areas affected by wildfire and the continuing invasive annual fire cycle to meet GRSG habitat objectives (**Table 2-2**)

v. Prioritize restoration in areas that have not crossed an ecological threshold

MD VEG 4: Plan vegetation treatments (including GRSG habitat treatments) in a landscape-scale context to address habitat fragmentation, effective patch size, invasive species presence, and intact sagebrush community protection, consistent with the GRSG habitat objectives identified in **Table 2-2**.

MD VEG 5: For Wyoming, mountain, and basin big sagebrush communities in PHMAs and GHMAs:

i. Prioritize treatments that focus on enhancing, reestablishing, or maintaining the most limiting GRSG habitat component

ii. Reestablish sagebrush to meet GRSG habitat objectives (**Table 2-2**)

iii. Manage sagebrush communities to achieve age-class, structure, cover, and species composition objectives in GRSG habitat (**Table 2-2)**

iv. Restore herbaceous understory in brush-dominated areas to meet GRSG habitat objectives (**Table 2-2**)

v. Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species (**Table 2-2**)

vi. Treat disturbed areas in accordance with FIAT (see **Appendix H**), including implementation-level assessments

MD VEG 6: Manage for establishment of sagebrush in unmaintained nonnative seedings (e.g., crested wheatgrass seedings) in or next to GRSG habitat to meet habitat objectives (**Table 2-2**).

MD VEG 7: In PHMAs and GHMAs, give preference to native seeds for restoration, based on availability, adaptation (ecological site potential), and probability of success. Where the probability of success or adapted seed availability is low, nonnative seeds may be used, as long as they support GRSG habitat objectives. Choose native plant species outlined in Ecological Site Descriptions (ESDs), where available, to revegetate sites. Emphasize use of local seed collected from intact stands or greenhouse cultivation. If the commercial supply of appropriate native seeds and plants is limited, work with the BLM Native Plant Materials Development Program, Natural Resource Conservation Service (NRCS) Plant Material Program,

or State Plant Material Programs. If currently available supplies are limited, use the materials that provide the greatest benefit for GRSG. In all cases, seed must be certified as weed free.

MD VEG 8: To increase seeding success and to ensure effective soil and seed contact, consider the use of specialized seed drills or other proven and effective methods that may become available based on new science.

MD VEG 9a: For Nevada BLM-managed lands, before implementation, establish project monitoring sites where vegetation treatment is planned. Treatment areas will be monitored both pre- and post-treatment on a multiple-year basis to ensure that project objectives are achieved.

MD VEG 9b: For California BLM-managed lands, before implementation, establish project monitoring sites where vegetation treatment is planned. Treatment areas will be monitored both pre- and post-treatment on a multiple-year basis to ensure that project objectives are achieved. Juniper treatments will be monitored in accordance with the Sage Steppe Ecosystem Restoration FEIS (BLM 2008).

MD VEG 10: On public lands, where the attributes, quality, or lack of GRSG winter habitat has been identified as a limiting factor, emphasize vegetation treatments in known winter habitat to enhance quality or reduce wildfire risk around or in winter habitat.

MD VEG 11: In perennial grass, invasive annual grass, and conifer-invaded cover types, restore sagebrush steppe with local sagebrush seedings or planted seedlings where feasible.

MD VEG 12: Continue to coordinate with NDOW, CDFW, and NRCS for all development or habitat restoration proposals in PHMAs and GHMAs. Also, coordinate with the Nevada SETT, tribes, and local working groups on projects proposed in sagebrush ecosystems.

Conifer encroachment

Objective VEG 4: In accordance with the vegetation dynamic development tool (VDDT; **Appendix I**), improve GRSG habitat by removing invading conifers in the number of acres shown in **Table 2-2** by decade for the next 50 years.

Management Decisions (MD)

MD VEG 13: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied GRSG habitats and near occupied leks and where juniper encroachment is phase 1 and phase 2. Use of site-specific analysis and tools like VDDT and FIAT (see **Appendix I** for VDDT and **Appendix H** for FIAT) will help refine the location for specific areas to be treated.

MD VEG 14: Do not construct or create new roads (temporary or permanent), skid trails, or landings in phase I pinyon or juniper removal areas during project implementation for vegetation treatments. Administrative access, including off-road travel with heavy equipment and vehicles, will be allowed during implementation.

MD VEG 15: Only treat habitats in late phase II or phase III pinyon or juniper condition to create movement corridors, connect habitats, or reduce the potential for catastrophic fire (see **Table 2-3**).

Table 2-3
Conifer Treatment Acres per Decade

State	Mechanical Treatment[1]	Prescribed Fire[2]
Nevada	649,000	8,000
California[3]	34,000	10,0000
Total	**683,000**	**18,000**

[1]Removal of conifers that have invaded sagebrush, generally phase one juniper that is 10 percent or less.
[2]Acres are those that are greater than 30 percent sagebrush canopy cover and/or invaded by 10 percent or greater conifer.
[3]BLM California-managed lands will be consistent with annual acres of treatment specified in the Sage Steppe Ecosystem Restoration FEIS (BLM 2008).

Invasive Species

Objective VEG 5: Reduce the amount of GRSG habitat loss due to wide-spread wildfires and invasion by nonnative species.

Objective VEG 6: Control invasive species infestations in GRSG habitat already compromised by invasion.

Objective VEG 7: In accordance with the VDDT (**Appendix I**), improve GRSG habitat by treating annual grasses in the number of acres shown in **Table 2-4** by decade using the FIAT (**Appendix H**).

Table 2-4
Annual Grass Treatment by Decade for 50 Years

State	Grass Restoration[1]
Nevada	1,354,000
California	257,000
Total	1,611,000

[1]Acres presently dominated by annual grasses that could be improved by herbicide application or seeding of perennial vegetation

Management Decisions (MD)

MD VEG 16: Prevent the establishment of invasive species into uninvaded areas in PHMAs and GHMAs through properly managed grazing and by conducting systematic and strategic detection surveys, collecting data, mapping these areas, and engaging in early response to contain and eradicate invasion if it occurs.

MD VEG 17: Control the spread and introduction of noxious weeds listed by the Nevada Department of Agriculture and California Department of Food and Agriculture (NAC 555.010, Classes A through C, inclusive and 3 CCR 4500, Noxious Weed Species Pest Rating A, B, C, and Q) and undesirable nonnative plant species (Gelbard and Belnap 2003; Bergquist et al. 2007). Work with federal, state, local, and tribal groups, such as Weed Control Districts, Cooperative Weed Management Areas, and Conservation Districts, in detecting and treating nonnative species.

MD VEG 18: Where scientific support is lacking, carefully construct treatments to rigorously assess the value or detriment of untested methods to determine their value for future application to GRSG habitats.

MD VEG 19: The BLM will cooperate with other federal, state, tribal and local agencies along with academia in researching the development of biological control agents and deploying emerging technologies as they become available.

MD VEG 20: Monitor and adjust treatment sites and methods as needed to ensure effectiveness of efforts to prevent and control invasive species and restore GRSG habitat.

MD VEG 21: Assess invasive annual grass presence and distribution before implementing vegetation restoration projects to determine if treatments are required to treat invasive annual grasses.

MD VEG 22: Treat sites in PHMAs and GHMAs that contain invasive species infestations through an integrated pest management (IPM) approach, using fire, chemical, mechanical, and biological (e.g., targeted grazing) methods, based on site potential and in accordance with FIAT (**Appendix H**). Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.

Riparian and Wetlands Habitat

Objective VEG 8: Manage riparian areas in PHMAs and GHMAs for vegetation composition and structure, consistent with ecological site potential and to achieve GRSG habitat objectives (**Table 2-2**).

Objective VEG 9: Manage upland habitat associated with riparian areas to promote cover relative to site potential to facilitate brood-rearing habitat (**Table 2-2**).

Objective VEG 10: Where riparian function has been compromised or lost, manage to restore riparian function and meet GRSG habitat objectives (**Table 2-2**).

Objective VEG 11: In riparian and wet meadow areas, inventory, monitor, and control invasive species in PHMAs and GHMAs.

Management Decisions (MD)

MD VEG 23: Design and implement vegetation treatments in PHMAs and GHMAs to restore, enhance, and maintain riparian areas (**Table 2-2**).

MD VEG 24: Consider an array of vegetation treatments to increase edge and expand mesic areas in PHMAs and GHMAs where riparian extent is limited by shrub encroachment (**Table 2-2**).

MD VEG 25: Manage lotic riparian habitats in conjunction with adjacent terraces and valley bottoms as natural fuel breaks to reduce the size and frequency of wildfires in PHMAs and GHMAs.

Climate Change

Objective VEG 12: Use the landscape approach and promote landscape-scale, ecosystem-based actions to enhance resiliency and sustainability of PHMAs and GHMAs to climate stress.

Objective VEG 13: In PHMAs and GHMAs, manage risks of GRSG habitat degradation or loss from landscape stressors of drought, invasive species, and wildfire exacerbated by climate change to maintain existing GRSG populations and habitats.

Management Decisions (MD)

MD VEG 26: As climate change data become available through Rapid Ecoregional Assessments or other ecological studies, identify areas of unfragmented GRSG habitat and corridors that provide the life-cycle and genetic transfer needs for GRSG and adjust resource management practices, as needed.

MD VEG 27: Cooperate with multiple agencies and stakeholders to establish and maintain a network of climate monitoring sites and stations.

2.1.3 Fire and Fuels Management (FIRE)

Wildfire Management

Objective FIRE 1: The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection. GRSG habitat will be prioritized commensurate with property values and other critical or sensitive habitats to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG.

Management Decisions (MD)

MD FIRE 1: Support the conservation of GRSG habitat objectives (**Table 2-2**) through appropriate wildfire management planning, coordination, staffing, resource allocations, training, equipment, and management oversight.

MD FIRE 2: Prioritize fire operations and fuels management decisions in PHMA ~~SFA first, followed by PHMAs outside of SFA~~ in accordance with the implementation-level FIAT assessments, and then GHMAs for conservation and protection during fire operations and fuels management decision-making. When suppression resources are widely available, place maximum efforts on limiting fire growth in GHMAs as well.

MD FIRE 3: BLM planning units, in coordination with the USFWS and relevant state agencies, will annually review the GRSG landscape wildfire and invasive species habitat assessments (FIAT). Based on this review, revised actions to ameliorate invasive species must be incorporated into the assessment.

MD FIRE 4: Compile relevant field office- and district-level information into the statewide GRSG Annual Operating Handbook for use by resource advisors, wildfire crews, and agency administrators. The handbook will contain GRSG maps (including habitat and fuels treatment maps) and lists of state and local GRSG resource advisors and their contact information, local guidance, and other relevant information for each field office and district, aggregated into a statewide document.

MD FIRE 5: Coordinate and collaborate with federal, tribal, state, and local governments and associations sanctioned through either California or Nevada that meet fire standards for effective and efficient wildfire response.

MD FIRE 6: Strengthen and improve interagency wildfire prevention statewide through targeted wildfire prevention messages, including providing education on GRSG habitat loss, updating interagency agreements, and conducting wildfire prevention workshops and demonstration projects.

Pre-Suppression

Objective FIRE 2: Use pre-suppression efforts to reduce the size and impact of wildfires in ~~SFA,~~ PHMAs and GHMAs.

Objective FIRE 3: Protect post-fire treatments in ~~SFA~~ PHMAs first, followed by ~~PHMAs outside of SFA, and then~~ GHMAs from subsequent wildfires.

Management Decisions (MD)

MD FIRE 7: Identify and prioritize areas that are vulnerable to wildfires and prescribe actions important for GRSG protection, in accordance with FIAT (see **Appendix H,** USDI 2015) and further refined in the implementation-level FIAT assessments.

MD FIRE 8: Create fire management plans to guide wildfire suppression in order to protect PHMAs and GHMAs.

MD FIRE 9: Before the fire season, train GRSG resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals. Involve state wildlife agency experts in fire operations through the following:

- Instruction of resource advisors during preseason trainings
- Qualification as resource advisors
- Coordination with resource advisors before fire season
- Contribution to incident planning with information, such as habitat features or other key data useful in fire decision-making

Suppression

Objective FIRE 4: Use suppression to reduce the size and impact of wildfires in ~~SFA,~~ PHMAs and GHMAs.

Management Decisions (MD)

MD FIRE 10: Provide local GRSG habitat maps to dispatch offices and extend attack incident commanders to prioritize wildfire suppression resources and design suppression tactics. Ensure GRSG habitat maps and suppression strategies are uploaded and updated in WFDSs.

MD FIRE 11: Assign a resource advisor with GRSG habitat expertise or with access to GRSG habitat expertise to all extended attack fires in or near ~~SFA,~~ PHMAs and GHMAs.

MD FIRE 12: In advance of critical fire weather, station additional federal fire suppression resources to optimize a quick and efficient response in ~~SFA,~~ PHMAs and GHMAs.

MD FIRE 13: During periods of multiple fires, ensure line officers prioritize decisions by coordinating with resource advisors.

MD FIRE 14: To the extent possible, locate wildfire suppression facilities (e.g., base camps, spike camps, drop points, staging areas, and helicopter bases) in areas to avoid disturbing PHMAs and GHMAs. These include disturbed areas, grasslands, roads and trails, or in other areas with existing disturbance or minimal sagebrush cover.

MD FIRE 15: Document fire operations (e.g., disturbance) in PHMAs and GHMAs for potential follow-up coordination and restoration.

MD FIRE 16: Use indirect attack tactics (including burn-out operations) when:

- Direct attack is not effective in stopping fires with the potential of becoming significantly larger due to fuel loading, weather conditions, and fire behavior.
- If firefighter and public safety will be threatened or compromised.

MD FIRE 17: Use retardant, mechanized equipment, and other available resources to minimize burned acreage during initial attack. As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.

MD FIRE 18: Minimize unnecessary cross-country vehicle travel during fire operations in GRSG habitat.

Fuels Management

Objective FIRE 5: Protect and enhance PHMAs and GHMAs and areas of connectivity that support GRSG populations, including large contiguous blocks of sagebrush, through fuels management and incorporation of the FIAT assessment (**Appendix H**).

Management Decisions (MD)

MD FIRE 19: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD FIRE 20: In PHMAs and GHMAs, apply fuels treatments on a landscape level to modify fire behavior, intensity, complexity (fire patchiness), size, and effects in which fire management efforts are enhanced.

MD FIRE 21: Establish and maintain fuel breaks to protect GRSG and its habitat to limit fire size and mitigate fire behavior to increase suppression effectiveness. When possible, establish fuel breaks next to roads or other previously disturbed areas.

MD FIRE 22: Use a full range of fuels management strategies and tactics within acceptable risk levels across the range of GRSG habitat consistent with land use plan direction.

MD FIRE 23: If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plan will address:

- Why alternative techniques were not selected as a viable option;
- How GRSG goals and objectives will be met by its use;
- How the COT report objectives will be addressed and met;
- A risk assessment to address how potential threats to GRSG habitat will be minimized.

Allow prescribed fire as a vegetation or fuels treatment, and it shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire can be used to meet specific fuels objectives that will protect GRSG habitat in PHMAs (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities).

Allow prescribed fire in known winter range, and it shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.

MD FIRE 24: In coordination with the USFWS and relevant state agencies and in accordance with FIAT (see **Appendix H**), develop a fuels management strategy for the BLM with large blocks of GRSG habitat. The strategy shall include an up-to-date fuels profile, land use plan direction, current and potential habitat fragmentation, sagebrush and GRSG ecological factors, and active vegetation management steps to provide critical breaks in fuel continuity. When developing this strategy, consider the risk of increased habitat fragmentation from a proposed action versus the risk of large-scale fragmentation posed by wildfires if the action were not taken.

MD FIRE 25: Design fuels treatments through an interdisciplinary team process to expand, enhance, maintain, and protect PHMAs and GHMAs. Fuel reduction techniques, such as prescribed fire and chemical, biological (including targeted grazing), and mechanical treatments, are acceptable. Use green strips and fuel breaks, where appropriate, to protect seeding from subsequent fires.

MD FIRE 26: In coordination with the USFWS and relevant state agencies and in accordance with FIAT (see **Appendix H**), BLM will identify treatment needs for wildfire and invasive species management. Ongoing treatment needs will be coordinated on state and regional scales and across jurisdictional boundaries for long-term conservation of GRSG and its habitat.

MD FIRE 27: On project completion, monitor and manage fuels projects to ensure long-term success, including persistence of seeded species and other treatment components. Control invasive vegetation post-treatment.

MD FIRE 28: Design fuels treatments to protect sagebrush ecosystems, modify fire behavior, restore ecological function, and create landscape patterns that most benefit PHMAs and GHMAs and promote use by GRSG.

MD FIRE 29: Train fuels treatment personnel on GRSG biology, habitat requirements, and identification of areas used locally.

MD FIRE 30: Use burning prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize killing desirable perennial plant species and reduce risk of annual grass invasion) and incorporate FIAT assessment (Chambers et. al 2014) in PHMAs and GHMAs.

MD FIRE 31: Ensure proposed sagebrush treatments are planned with interdisciplinary input from the BLM and coordinated with USFWS and state fish and wildlife agencies to meet GRSG habitat objectives (**Table 2-2**).

MD FIRE 32: Design vegetation treatments in areas of high fire frequency to facilitate firefighter safety, reduce the potential acres burned, and reduce the fire risk to GRSG habitat.

MD FIRE 33a: For Nevada BLM-administered lands, before implementation, establish project monitoring sites where fuels management projects are planned. Monitor treatment areas both pre- and post-treatment on a multiple-year basis to ensure that project objectives are achieved.

MD FIRE 33b: For California BLM-managed lands, before implementation, establish project monitoring sites where fuels management projects are planned. Monitor treatment areas both pre- and post-treatment on a multiple-year basis to ensure that project objectives are achieved. Juniper treatments will be monitored in accordance with the Sage Steppe Ecosystem Restoration FEIS (BLM 2008).

Post Fire Management

Objective FIRE 6: Retain, protect, and improve intact unburned sagebrush communities in burned areas by incorporating the FIAT assessment (Chambers et. al 2014).

Management Decisions (MD)

MD FIRE 34: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD FIRE 35: Prioritize post-fire treatments in PHMAs and GHMAs to maximize benefits to GRSG and its habitat. Focus post-fire treatments on replacing or reestablishing burned sagebrush habitat with the appropriate cover and structure to support GRSG habitat objectives (**Table 2-2**).

MD FIRE 36: In post-fire rehabilitation plans in PHMAs and GHMAs, design revegetation projects to accomplish the following:

- Maintain and enhance unburned intact sagebrush communities when at risk from adjacent threats
- Stabilize soils
- Reestablish hydrologic function
- Maintain and enhance biological integrity
- Promote plant resiliency
- Limit expansion or dominance or invasive species
- Reestablish native species

MD FIRE 37: Implement post-fire treatments in PHMAs and GHMAs that emphasize stabilizing, rehabilitating, and restoring sagebrush ecosystems damaged by wildfires, including controlling invasive species.

MD FIRE 38: Increase post-fire treatment activities in PHMAs and GHMAs through the use of integrated funding opportunities with other resource programs and partners.

MD FIRE 39: Following post-fire treatments, monitor and implement management actions in PHMAs and GHMAs that promote healthy perennial grass, shrub and forb communities, and lentic (slow-moving freshwater) and lotic (rapid freshwater) riparian habitats so as to further restoration and ensure long-term persistence of seeded or pre-burn native plants, in accordance with GRSG habitat objectives (**Table 2-2**).

MD FIRE 40: Evaluate the potential for sagebrush island plantings based on ESDs in large burn areas that may lack sufficient sagebrush seed sources in order to ensure the reestablishment of sagebrush in GRSG habitat.

MD FIRE 41: Monitor post-fire rehabilitation treatments on a multiple-year basis to ensure that project objectives are achieved.

MD FIRE 42: Use GRSG habitat objectives (**Table 2-2**) and emphasize the use of native plant species in post-fire rehabilitation (e.g. reseeding), recognizing that nonnative species may be necessary, depending on the availability of native seed and prevailing site conditions. Selected species shall maintain site ecological function based on pre-burn conditions and anticipated threat of invasive and noxious weed establishment. Use ESDs and state and transition models if available.

2.1.4 Livestock Grazing (LG)

Objective LG 1: Manage permitted livestock grazing to maintain and/or enhance PHMAs and GHMAs to meet or make progress towards meeting all GRSG life-cycle requirements and habitat objectives (**Table 2-2**), based on site potential.

Management Decisions (MD) (see Appendix A; Figure 2-3)

MD LG 1: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperation and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation and consistent with 43 CFR 4160.1 and IM-2018-023. Potential modifications include, but are not limited to, changes in:

- Season or timing of use;
- Numbers of livestock;
- Distribution of livestock use;
- Duration and/or level of use;
- Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011);
- Grazing schedules (including rest or deferment);
- Class of livestock;
- Grazing schedules (including rest or deferment)
- Making allotment unavailable to grazing

*Not in priority order

MD LG 2: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in ~~SFA followed by~~ PHMAs ~~outside of the SFA~~. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting land health standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations.

MD LG 3: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within ~~SFA and~~ PHMAs will include specific management thresholds based on GRSG Habitat Objectives Table (**Table 2-2**), Land Health Standards (43 CFR, Part 4180.2) and ecological site potential,

and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.

MD LG 4: Complete land health assessments in PHMAs and GHMAs to identify whether or not GRSG habitat objectives (**Table 2-2**) are being met. The priority order for completing land health assessments in GRSG habitat is:

- ~~Allotments containing SFA that have never been evaluated;~~
- ~~Allotments containing SFA that have not been re-evaluated in 10 or more years;~~
- Allotments containing PHMAs that have never been evaluated;
- Allotments containing PHMAs that have not been re-evaluated in 10 or more years;
- Allotments containing GHMAs that have never been evaluated;
- Allotments containing GHMAs that have not been re-evaluated in 10 or more years.

MD LG 5: If results from a land health assessment indicate that GRSG habitat objectives (**Table 2-2**) are not met in ~~SFA,~~ PHMAs, or GHMAs and grazing is a causal factor, and until appropriate modifications (MD LG 1) are incorporated through the permit renewal process, then, consistent with applicable law and regulations, implement management strategies that may include, but are not limited to, the following:

- Provide periods of rest or deferment during critical growth periods of key vegetation species
- Limit grazing duration and intensity to allow plant growth sufficient to meet GRSG habitat objectives (**Table 2-2**)
- Employ herd management techniques to minimize impacts of livestock on breeding, nesting, and brood-rearing habitat during the breeding season (March 1 to June 30; Lek—March 1 to May 15, and Nesting—April 1 to June 30)
- Consider any temporary projects that can mitigate livestock impacts (e.g., temporary fencing or temporary water hauling locations;
- Work with permittees to avoid concentrated turn-out locations for livestock within 4 miles of active and pending leks from March 1 to June 30
- Avoid domestic sheep use and bedding areas and herder camps within 2 miles of active and pending leks from March 1 to June 30
- Utilizing land features and roads on maps provided to the permittee to help delineate livestock use avoidance areas
- Considering no grazing from May 15 – Sept. 15 in riparian areas and wet meadows.
- Removing livestock within 3-7 days for the remainder of the grazing year once the allowable use levels are reached (BLM 1996, Burton et. al 2011, Cagney et. al, 2010, Connelly et. al 2000, France et. al 2008, Hagen et. al 2007, Holechek 1988, Platts 1990, and Tanaka et. al 2014):

    -In riparian areas and wet meadows the allowable percent utilization is 35% woody species, and a minimum stubble height of 4-6 inches (10-15 cm) for herbaceous riparian vegetation based on site.

    -In mountain big sage habitat, the allowable percent utilization is 40 % herbaceous key species and/or 35 % shrub key species.

    -In Wyoming Basin big sage habitat, the allowable percent utilization is 35% herbaceous key species and/or 35 % shrub key species.

-In black sage habitat, the allowable percent utilization is 35% herbaceous key species and/or 35 % shrub key species.

To the extent that the implementation of these strategies would be in conflict with the terms and conditions of any applicable livestock grazing permit or lease, then the BLM would complete a new decision-making process before implementing the strategies.

MD LG 6: Appropriate allowable utilization levels will be defined through the grazing permit renewal process. At least one alternative in the NEPA process will consider the utilization levels identified in MD LG 5.

MD LG 7: In pastures where post livestock removal use monitoring results in utilization levels that exceed allowable use levels and livestock are identified as a causal factor, reduce animal unit months (AUMs) grazed the following year in accordance with 43 CFR 4160.1 and IM 2018-023. AUMs cannot be applied to another pasture that is already being used by livestock or is being purposefully rested.

MD LG 8: Within PHMAs and GHMAs, incorporate terms and conditions into grazing permits to meet GRSG habitat objectives (**Table 2-2**), specific terms and conditions will be based on rangeland health assessments (and subsequent monitoring data).

MD LG 9: When a transfer application is received for preference on an allotment within GRSG habitat:

- Transfer of Preference: A transfer of preference will be approved unless the applicant does not meet qualifications (43 CFR, Part 4110.1 and 4110.2). A transfer will be approved to an unqualified applicant if 4110.2-3(e) applies.
- Issuing the permit: In accordance with Section 402(c)(2) of FLPMA, a new permit will be issued to the new preference holder with the same terms and conditions as the terminated permit unless:
- A NEPA analysis of alternative terms and conditions has been completed. If changes in terms and conditions are needed to meet GRSG habitat needs or otherwise make progress toward meeting land health standards, issue a decision offering a permit with the new terms and conditions
- If a new permit is issued as required by Section 402(c)(2) of FLPMA, then determine priority for completing land health evaluations, habitat assessments and NEPA analysis as described in MD LG 1.

MD LG 10: In any allotment where land health standards were not met and livestock grazing was found to be a significant causal factor, compliance monitoring will be conducted annually until GRSG habitat objectives (**Table 2-2**) are met or making progress towards meeting habitat objectives. If compliance monitoring finds that the implemented management strategies identified in MD LG 5 are not achieving the desired results, a change in action will be required in compliance with CFR 43 CFR 4160.1 and IM 2018-023.

MD LG 11: Allotments within ~~SFA, followed by those within~~ PHMAs, focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.

MD LG 12: Grazing management strategies for riparian areas and wet meadows will, at a minimum, maintain or achieve proper functioning condition (PFC) and promote GRSG brood-rearing habitat objectives (**Table 2-2**) within PHMAs and GHMAs.

MD LG 13: For range improvement projects, review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD LG 14: Build or modify livestock exclosures so that they are large enough to provide hiding cover to GRSG and other wildlife and to reduce the possibility of wildlife collisions with fences (Christiansen 2009; Stevens 2011; NRCS 2012).

MD LG 15: In accordance with state water law and subject to valid existing rights, remove or modify water developments that are negatively impacting GRSG habitats.

MD LG 16: Authorize new water developments for diversion from spring or seep source, in accordance with state water law and subject to valid existing rights when PHMAs and GHMAs will benefit from or not be negatively impacted by the new development. This includes developing new water sources for livestock as part of a grazing management plan to improve GRSG habitat.

MD LG 17: Modify water development projects to ensure riparian habitats in PHMAs and GHMAs are being maintained or improved in compliance with valid existing rights and in accordance with state water law.

MD LG 18: Locate salting and supplemental feeding locations, temporary or mobile watering, and new handling facilities (e.g., corrals and chutes) at least 1 mile from riparian areas, springs, and meadows. The distance can be greater based on site-specific conditions.

MD LG 19: In PHMAs and GHMAs, remove livestock ponds built in perennial channels that are negatively impacting riparian habitats, either directly or indirectly, unless riparian access is able to be controlled and negative impacts effectively mitigated (e.g., water gap fence to pond), and do not permit new ones to be built in these areas subject to valid existing rights. Prior to pond removal, offsite watering options will be examined and considered.

MD LG 20: In PHMA and GHMA, rest areas that have received vegetative treatments from livestock grazing until resource monitoring data verifies the treatment objectives are being met and an appropriate grazing regime has been developed. Any livestock grazing temporary suspended use or other management changes per 43 CFR, Part 4110.3-2a for the purpose of a vegetation treatment will be done through the grazing decision, prior to treatment.

MD LG 21: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized shall remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments and fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.

MD LG 22: After grazing rest associated with vegetation treatments in PHMAs and GHMAs, monitor annually for a minimum of 5 years to ensure project objectives are being maintained.

MD LG 23: Fences shall not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).

2.1.5 Wild Horses and Burros (WHB)

Management Decisions (MD)

MD WHB 1: For WHB management activities (e.g., gathers), review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD WHB 2: Manage herd management areas (HMAs) in GRSG habitat within established AML ranges to achieve and maintain GRSG habitat objectives (**Table 2-2**).

MD WHB 3: Complete rangeland health assessments for HMAs containing GRSG habitat using an interdisciplinary team of specialists (e.g., range, wildlife, and riparian). The priorities for conducting assessments are:

~~1. HMAs containing SFA;~~
2. HMAs containing PHMAs, which include riparian areas;
3. HMAs containing only GHMAs;
4. HMAs containing sagebrush habitat outside of PHMAs and GHMAs mapped habitat;
5. HMAs without GRSG habitat.

MD WHB 4: Prioritize gathers and population growth suppression techniques in HMAs in GRSG habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Place higher priority on herd areas not allocated as HMAs and occupied by wild horses and burros in ~~SFA, followed by~~ PHMAs.

MD WHB 5: In ~~SFA and~~ PHMAs ~~outside SFA~~, assess and adjust AMLs through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting rangeland health standards, even if current AML is not being exceeded.

MD WHB 6: In ~~SFA and~~ PHMAs ~~outside SFA~~, monitor the effects of WHB use in relation to GRSG habitat objectives (**Table 2-2**) on an annual basis to help determine future management actions.

MD WHB 7: Develop or amend herd management area plans (HMAPs) to incorporate GRSG habitat objectives (**Table 2-2**) and management considerations for all HMAs within GRSG habitat, with emphasis placed on ~~SFA and~~ PHMAs ~~outside SFA~~.

MD WHB 8: Consider removals or exclusion of WHB during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives (**Table 2-2**) where HMAs overlap with GRSG habitat.

MD WHB 9: When conducting NEPA analysis for wild horse/burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.

MD WHB 10: Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g., population growth suppression, inventory techniques, and telemetry) for implementing the WHB program.

2.1.6 Mineral Resources (MR)

Leasable Minerals

~~**Objective MR 1:** Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMAs and GHMAs, that are subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).~~

Objective MR 2: Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an application for permit to drill (APD) for the lease to avoid and minimize impacts on GRSG or its habitat and will ensure that the best information about GRSG and its habitat informs and helps to guide development of such federal leases.

Management Decisions (MD)

Unleased Fluid Minerals

MD MR 1: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

~~**MD MR 2:** Manage SFA as NSO without waivers, exceptions, or modifications (see **Appendix A; Figure 2-4**).~~

MD MR 3: In PHMAs, manage oil and gas with major constraints (no-surface occupancy) and timing limitations. See **MD SSS 5 (Allocation Exceptions)** and **Appendix E** regarding waivers, exceptions, and modifications for oil and gas lease stipulations. ~~In PHMAs outside of SFA, no waivers or modifications to an oil and gas lease no-surface-occupancy stipulation will be granted. In PHMAs, the Authorized Officer may grant an exception to an oil and gas lease no-surface-occupancy stipulation only where the proposed action:~~

~~i. Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or,~~

~~ii. Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG.~~

~~Exceptions based on conservation gain (ii) may only be considered in (a) PHMAs of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) Areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a~~

~~valid federal oil and gas lease existing as of the date of this RMP amendment. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts (see **Appendix G**).~~

~~Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publicly available at least quarterly.~~

MD MR 4a: In PHMAs, manage geothermal fluid minerals with major constraints (no-surface occupancy) and timing limitations. See **MD SSS 5 (Allocation Exceptions)** and **Appendix E** regarding waivers, exceptions, and modifications for oil and gas lease stipulations.

~~For BLM land in the state of Nevada only, in the portions of the PHMAs outside of SFA, geothermal projects may be considered for authorization if all of the following conditions are met:~~

- ~~A team comprised of BLM, FWS, and NDOW specialists advises the BLM State Director on appropriate mitigation measures for the project and its ancillary facilities, including lek buffer distances using the best available science;~~
- ~~Mitigation actions are consistent with this Plan's mitigation strategy such as the Nevada Conservation Credit System, and;~~
- ~~The footprint of the project is consistent with the disturbance management protocols identified in this plan (see MD SSS 2 and **Appendix E**)~~

~~**MD MR 4b:** For BLM lands in California only, manage geothermal leasing in PHMAs in accordance with MD MR 3 (see **Appendix G**).~~

MD MR 5: In GHMAs, manage oil and gas and geothermal fluid minerals with moderate constraints, timing limitations, and controlled surface use stipulations (see **Appendix A; Figure 2-4**).

MD MR 6: In PHMAs and GHMAs, allow only geophysical exploration that does not crush sagebrush or create new or additional surface disturbance. Examples of technologies that may meet this requirement are drilling methods using helicopters, articulated rubber-tired vehicles that leave no trace, and vibroseis geophysical operations on roads and bladed shoulders.

MD MR 7: Prohibit surface shot methods in PHMAs.

Leased Federal Fluid Mineral Estate Actions

MD MR 8: Review Objective SSS 4, and to the extent allowed by law, apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD MR 9: Use directional and horizontal drilling to reduce surface disturbance.

MD MR 10: On leased federal fluid mineral estate, where no APD or geothermal drilling permit (GDP) has been issued, apply RDFs consistent with applicable law and other conditions of approval (COAs) that conserve GRSG. Manage existing fluid mineral leases through COAs applied at the time APD or GDP is approved.

MD MR 11: On leased federal fluid mineral estate in PHMAs, complete master development plans for oil and gas in lieu of APD-by-APD, or operations/utilization plans for geothermal processing for all but exploration wells.

MD MR 12: On leased, federal, fluid mineral estate in PHMAs, require a full reclamation bond specific to the site. Ensure bonds are sufficient for reclamation costs for full restoration. Base the reclamation costs on the assumption that BLM contractors will perform the work.

MD MR 13: In PHMAs and GHMAs, place infrastructure in already disturbed locations to the extent feasible.

MD MR 14: Locate new compressor stations outside PHMAs and GHMAs and design them to reduce noise that may be directed toward PHMAs and GHMAs (see MDs SSS 2 and SSS 3 and **Appendix G**).

Locatable Minerals

MD MR 15: Review Objective SSS 4, and to the extent allowed by law, apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

~~**MD MR 16:** Recommend for withdrawal SFA under the General Mining Act of 1872, as amended, subject to valid existing rights (see **Appendix A; Figures 2-1** and **2-4**).~~

MD MR 17: On public lands, manage disturbances associated with notice-level activity in GRSG habitat on a landscape basis to avoid segmenting a project. Do this by encouraging operators and claimants to consolidate exploration into a plan of operations to reduce the proliferation of mining notices, in accordance with 43 CFR, Part 3809.21(b).

MD MR 18: Subject to valid existing rights and applicable law, authorize locatable mineral development activity, by approving plans of operation and apply mitigation and best management practices that minimize the loss of PHMAs and GHMAs or that enhance GRSG habitat by applying the mitigation strategy outlined in **MD MIT 1** ~~the "avoid, minimize and compensatory mitigation" process through an applicable mitigation system, such as the Nevada Conservation Credit System~~ and exemplified in the Barrick Nevada Sage-Grouse Bank Enabling Agreement (March 2015).

MD MR 19: Close or mitigate abandoned mine sites in PHMAs and GHMAs to reduce GRSG predation by eliminating physical structures that could provide nesting opportunities and perching sites for predators.

Salable Minerals

MD MR 20: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD MR 21: PHMAs are closed to new mineral material sales **(see Appendix A; Figure 2-6)**. However, these areas remain open to free use permits and the expansion of existing active pits, if requirements in

MD MR 20 are met and/or if the new mineral material sale meets one of the allocation exception criteria outlined in **MD SSS 5**.

MD MR 22: Manage GHMAs as open to existing and new mineral materials disposal sites (**see Appendix A; Figure 2-6)**.

MD MR 23: Provide reasonable access and development opportunity to Federal Highway Administration, Nevada Department of Transportation (NDOT), California Department of Transportation (Caltrans), counties, tribes and the public for existing mineral material pits in PHMAs and GHMAs.

Non-Energy Leasable Minerals

MD MR 24: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD MR 25: Manage PHMAs as closed to new non-energy leasable mineral leasing, unless the new non-energy leasable mineral lease meets one of the allocation exception criteria outlined in **MD SSS 5** (see **Appendix A; Figure 2-7**).

MD MR 26: Expansion of existing leases will be considered in PHMA for development.

MD MR 27: Manage GHMAs as open to new non-energy leasable mineral leasing (see **Appendix A; Figure 2-7**).

Mineral Split Estate

MD MR 28: Review Objective SSS 4, and to the extent allowed by law, apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat in split estate situations.

MD MR 29: Where the federal government owns the mineral estate in PHMAs and GHMAs, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval (COAs), and/or conservation measures and RDFs applied (consistent with applicable law) if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.

MD MR 30: Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMAs and GHMAs, apply appropriate surface use COAs, stipulations, and mineral RDFs (consistent with applicable law) through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.

2.1.7 Renewable Energy (Wind and Solar) (RE)

Management Decisions (MD)

Industrial Solar

MD RE 1: Manage PHMAs and GHMAs as ROW exclusion for utility-scale solar energy facilities (those that generate 20 megawatts or more), unless the utility-scale solar energy facility meets one of the

allocation exception criteria outlined in **MD SSS 5**, (see **Appendix A; Figure 2-9**) and in accordance with the Final Solar Energy Development Programmatic Environmental Impact Statement (BLM 2012).

MD RE 2: In PHMAs and GHMAs, consider approving solar facilities on existing industrial infrastructure (e.g., a mine site) to generate power on-site. Review Objective SSS 4 and apply MDs SSS 1 through SSS 3 when reviewing and analyzing projects and activities proposed in GRSG habitat. In OHMAs, apply Action SSS 4.

Wind Energy Development

MD RE 3: Manage PHMAs as ROW exclusion for utility-scale commercial wind energy facilities (those that generate 20 megawatts or more), unless the commercial wind energy facility meets one of the allocation exception criteria outlined in **MD SSS 5** (see **Appendix A; Figure 2-8**).

MD RE 4: Within PHMAs, wind facilities associated with existing industrial infrastructure (e.g., a mine site) to provide on-site power generation could be considered for approval, subject to ~~a net conservation gain~~ meeting one of the allocation exception criteria outlined in **MD SSS 5** (see **Appendix A; Figure 2-8**). Apply MDs SSS 1 through SSS 2 when reviewing and analyzing projects/activities proposed within GRSG habitat.

MD RE 5: Manage GHMAs as ROW avoidance for utility-scale commercial wind energy facilities (i.e., facilities that generate 20 megawatts or more), unless the commercial wind energy facility meets one of the allocation exception criteria outlined in **MD SSS 5** (see **Appendix A; Figure 2-8**). Review Objective SSS 4 and apply Actions SSS 1 through SSS 3 when reviewing and analyzing projects/activities proposed within GRSG habitat. In OHMAs apply Action SSS 4.

2.1.8 Lands and Realty (LR)

Objective LR 1: Manage land use authorizations, including ROWs, leases, permits, and tenure adjustments, to maintain or enhance PHMAs and GHMAs and connectivity.

Objective LR 2: Effects of infrastructure projects, including siting, will be minimized using the best available science, and updated as monitoring information on current infrastructure projects becomes available.

Management Decisions (MD)

Utility Corridors and Communication Sites

MD LR 1: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD LR 2: Only utility corridors identified in **Appendix A, Figure 2-10** remain as designated corridors in PHMAs and GHMAs. All previously designated corridors in PHMAs and GHMAs not shown on the map that were designated through past land use planning efforts have been evaluated and undesignated.

MD LR 3: On public lands, keep the designated corridors identified in **Appendix A**, **Figure 2-10** in PHMAs and GHMAs available to new uses, subject to a maximum corridor width of 3,500 feet, unless a

narrower width is specified in an existing plan, or a different width is specified for congressionally designated corridors.

MD LR 4: When issuing new communication site management plans or amending existing plans, include GRSG habitat objectives (**Table 2-2**). Current authorizations will then be amended to reflect the updated communication site management plans.

Land Use Authorizations

MD LR 5: PHMAs and GHMAs are designated as avoidance areas for high voltage transmission line ROWs (>100 kV) (see **Appendix A; Figure 2-11**), unless the high voltage transmission line meets one of the allocation exception criteria outlined in **MD SSS 5.** Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat. In OHMAs, apply MD SSS 4, ~~except for the transmission projects specifically identified below. All authorizations in these areas, other than the identified projects, must comply with the conservation measures outlined in this proposed plan amendment, including the all of the requirements presented in MDs SSS 1 – SSS 4. The BLM is currently processing an application for the TransWest Express transmission line and the NEPA review for this project is well underway. Conservation measures for GRSG are being analyzed through the project's NEPA review process, which should achieve a net conservation benefit for the GRSG.~~

MD LR 6: PHMAs and GHMAs are designated as major pipeline (≥24-inch diameter) ROW avoidance areas (see **Appendix A; Figure 2-11**), unless the major pipeline meets one of the allocation exception criteria outlined in **MD SSS 5.** Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat. In OHMAs, apply MD SSS 4.

MD LR 7: Issue ROWs only after documenting that they will not adversely affect or disrupt GRSG habitat (independent of disturbance cap), except where such limitation will make accessing valid existing rights impracticable in PHMAs and GHMAs.

MD LR 8: Manage PHMAs as avoidance areas for ROWs (including permits and leases) (see **Appendix A; Figure 2-11)**, unless the ROW meets one of the allocation exception criteria outlined in **MD SSS 5.** These ROWs do not include the wind, solar, or high-voltage transmission line and major pipeline ROW actions, above.

MD LR 9: Manage GHMAs as open to ROWs (including for permits and leases) (see **Appendix A; Figure 2-11**). These do not include the wind, solar, or high-voltage transmission line and major pipeline ROW actions, above.

MD LR 10: In PHMAs, bury new distribution power and communication lines in existing disturbed areas, unless it will not be technically feasible or the cost will prohibit the proponent from providing the service. Where burying transmission lines is not feasible, locate new transmission lines next to existing linear disturbances, when possible; additional mitigation will be required.

MD LR 11: When renewing or amending ROWs (including permits and leases), assess the impacts of ongoing use of the ROW on GRSG and its habitat and minimize such impacts to the extent allowed by law.

MD LR 12: When renewing or amending ROWs that are undeveloped, work with ROW holders to bury or relocate authorized but undeveloped lines to minimize impacts on PHMAs, unless this will not be technically feasible or will be contrary to policy. Where burying transmission lines is not feasible, locate new transmission lines next to existing linear disturbances, when possible.

MD LR 13: In PHMAs and GHMAs where existing ROWs, permits, or leases are no longer in use, coordinate with the authorized holder to relinquish the authorization and reclaim the site by removing the infrastructure.

MD LR 14: Stipulate site relinquishment and reclamation in all new, amended or renewed ROWs, permits, and leases.

MD LR 15: In PHMAs and GHMAs, site new linear features in designated corridors, as identified in **Appendix A, Figure 2-10**, or at a minimum, collocate with existing linear features. Construct new ROWs in designated corridors as close as technically feasible to existing linear ROW infrastructure to limit disturbance to the smallest footprint.

MD LR 16: Manage landfills and transfer stations on public lands to eliminate opportunities to attract and provide nesting, cover, or perches for predators.

MD LR 17: Within 4 miles of active and pending leks in GRSG habitat, require ROW, permit, and lease holders to retrofit those portions of power lines and other utility structures with nesting and perch-deterring devices. Do this during the renewal and amendment process if adverse effects, such as increased nest predation, on GRSG populations have been documented. This requirement shall be predicated on research and monitoring studies specific to power lines or other utility structures.

MD LR 18: In PHMAs and subject to valid existing rights, authorize new road ROWs only when necessary for public safety or administrative access, or if it will create no new surface disturbance.

MD LR 19: In PHMAs and GHMAs, address access to valid existing rights to provide the minimum access necessary to exercise the right and maintain or enhance PHMAs and GHMAs.

MD LR 20: Consider the likelihood of development of not-yet-constructed surface-disturbing activities as defined in Table 2 of the Monitoring Framework (**Appendix J**) under valid existing rights prior to authorizing new projects in PHMA.

Land Tenure

MD LR 21: Exceptions to non-disposal or exchange lands that are identified for retention in **Appendix A, Figure 2-12** could be considered if (a) they are identified for disposal through previous planning efforts or address a Congressional Act (e.g., the respective Lincoln and White Pine County Conservation, Recreation, and Development Acts), (b) the agency can demonstrate that the disposal, including land exchanges, will have no adverse direct, indirect or cumulative impacts on GRSG and its habitat, or (c) adverse impacts on GRSG or its habitat will be offset, through use of voluntary compensatory mitigation, consistent the State's mitigation policies and programs, such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of consistent with federal law). Also see allocation exception criteria in **MD SSS 5**.

~~Lands classified as PHMAs and GHMAs for GRSG will be retained in federal management, unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to GRSG or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the GRSG.~~

MD LR 22: Where significant conservation actions can be achieved in PHMAs and GHMAs, seek to acquire lands with intact subsurface mineral estate by donation, purchase, or exchange in order to best conserve, enhance, or restore GRSG habitat.

MD LR 23: Manage lands acquired by exchange, purchase or easement as either PHMAs or GHMAs, in consideration of surrounding habitat.

Withdrawals

~~**MD LR 24:** Recommend SFA for withdrawal from the General Mining Act of 1872, as amended; subject to valid existing rights (see **Appendix A; Figure 2-5**).~~

2.1.9 Recreation and Visitor Services (REC)

Management Decisions (MD)

MD REC 1: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when analyzing projects and activities proposed in GRSG habitat.

MD REC 2: Allow special recreation permits in PHMAs and GHMAs only if their effects on GRSG and its habitat are neutral or beneficial ~~result in a net conservation gain~~.

MD REC 3: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the facility meets one of the criteria outlined in **MD SSS 5** ~~the development will have a net conservation gain to GRSG and its habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.~~

MD REC 4: Develop trail mapping and educational campaigns in PHMAs and GHMAs to reduce recreational impacts on GRSG and their habitat, including the effects of cross-country travel.

2.1.10 Travel and Transportation (TTM)

Objective TTM 1: Prioritize and complete transportation planning in PHMAs and GHMAs that provides for reasonable access to public lands for administration and recreation and that minimizes proliferation of user-created routes (e.g., roads, primitive roads, and trails).

Management Decisions (MD)

MD TTM 1: Review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

MD TTM 2: In areas where travel planning has not been completed, limit off-highway vehicle (OHV) travel to existing routes in PHMAs and GHMAs (subject to valid existing rights, such as for a mine under a plan of operations) until subsequent implementation-level travel planning is completed and a designated

route system is established. In travel management plans that have been completed and are being implemented (e.g., northeastern California plans), continue to limit OHV travel to designated routes in PHMAs and GHMAs **(see Appendix A; Figure 2-13)**.

MD TTM 3: Allow the goals, objectives, and actions in relevant national OHV guidance to guide subsequent implementation-level travel planning efforts. In addition, the following guidelines will be considered when undertaking future implementation-level travel planning:

- Identify, prioritize, and update annually a timeline to complete travel planning in all relevant planning areas to accelerate data collection, route evaluation and selection, and on-the-ground implementation, including signing, monitoring, and rehabilitation.
- Consult with interested user groups, federal, state, county, and local agencies, local landowners, and other parties to provide an opportunity for the public to express itself and have its views considered. Consequently, incorporate a public outreach plan to fully engage all interested stakeholders into future travel management plans.
- Among other route evaluation criteria, incorporate criteria from 43 CFR, Part 8342.1, and specifically section (b), "areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats."
- Evaluate all routes to determine the purpose and need and the potential resource or user conflicts from motorized travel. Where resource or user conflicts outweigh the purpose and need for the route, consider closing the route or relocating it outside of PHMAs and GHMAs. Evaluate for administrative access only routes not required for public access or recreation against current administrative/agency purpose or need.
- Consider closing routes that are duplicative, parallel, or redundant.
- Consider seasonal restrictions (see MD SSS 2 and SSS 3) on motorized travel use PHMAs and GHMAs where motorized vehicle use is a threat. Consider limiting over snow vehicles (OSVs) designed for use on a track or tracks or a ski or skis, while in use to designated routes or consider seasonal closures in GRSG wintering areas from November 1 through February 28.
- Consider the need for restricting motorized vehicles, including their sound levels (Actions SSS 2 and SSS 3), speed and design (e.g., motorcycles, ATVs, and UTVs).
- Consider scheduling road maintenance to avoid disturbance during sensitive GRSG life-cycle periods to the extent practicable. Consider using time of day, seasonal, and noise restrictions (see MD SSS 2 and SSS 3) to reduce impacts on GRSG seasonal habitat.
- In PHMAs and GHMAs, close to motorized travel those roads, primitive roads, and trails not designated in travel management plans.
- In PHMAs and GHMAs, prioritize restoring routes not designated in a travel management plan. Obliterate and seed roads, primitive roads, and trails not designated in travel management plans, with appropriate seed mixes and transplanted sagebrush when applicable. Use fire-resistant species as fuel breaks where appropriate. Seed must be certified weed free.

MD TTM 4: In PHMAs and GHMAs, where new roads are necessary for public safety, administration, or public need, consider limiting route construction to realignments of existing routes where possible.

MD TTM 5: In PHMAs and GHMAs, work with local governments to minimize upgrading existing routes that will change route category (e.g., road, primitive road, or trail) or capacity, unless the upgrade will

maintain or enhance GRSG habitat, provide a fuel break to protect native vegetation, will be necessary for public safety, or will eliminate the need to construct a new road.

MD TTM 6: In PHMAs and GHMAs, temporary closures will be considered in accordance with 43 CFR, Subpart 8364 (Closures and Restrictions), 43 CFR, Subpart 8351 (Designated National Area), 43 CFR, Subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties), and 43 CFR, Subpart 8341 (Conditions of Use).

Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. where an authorized officer determines that off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence (43 CFR, Part 8341.2). A closure or restriction order shall be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders shall be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.

2.1.11 Cultural Resources (CUL)

Management Decisions (MD)

MD CUL 1: Do not restrict tribal access to view GRSG breeding behavior for a tribe's traditional lifeways.

MD CUL 2: Do not prohibit tribal access to traditional locations for cultural practices in PHMAs and GHMAs.

MD CUL 3: Do not prohibit tribal collection of seeds, vegetation, or medicinal plants related to traditional cultural practices in PHMAs and GHMAs.

2.1.12 Mitigation (MI)

Management Decisions (MD)

MD MIT 1: When authorizing third-party actions in GRSG HMAs, the BLM will seek to achieve the planning-level GRSG management goals and objectives through implementation of mitigation and management actions, consistent with valid existing rights and applicable law. Management will be consistent with the GRSG goals and objectives, and in conformance with BLM Manual 6840, Special Status Species Management. In accordance with BLM Manual 6840, the BLM will undertake planning decisions, actions and authorizations "to minimize or eliminate threats affecting the status of [GRSG] or to improve the condition of [GRSG] habitat" across the planning area.

The BLM has determined that FLPMA does not explicitly mandate or authorize the BLM to require public land users to implement compensatory mitigation as a condition of obtaining authorization for the use of BLM-administered lands (IM 2019-018, Compensatory Mitigation, December 6, 2018). Consistent with that determination, compensatory mitigation must be voluntary unless required by other applicable laws, but the BLM recognizes that state authorities may also require compensatory mitigation.

To align this planning effort with the BLM's compensatory mitigation policy, IM 2019-018, the amended plans clarify that the BLM will consider compensatory mitigation only when offered voluntarily by a project proponent, when required by a law other than FLPMA; or as a component of compliance with a state mitigation plan, program, or authority, such as required by State of Nevada Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). In accordance with the State's goals for managing Greater Sage-Grouse, the plans modify the net conservation gain standard for compensatory mitigation to clarify that the BLM would pursue net benefit/net conservation gain as a broader planning goal and objective. This means that the BLM would continue to require avoidance, minimization, and other onsite mitigation to adequately conserve Greater Sage-Grouse and its habitat, while remaining committed to implementing beneficial habitat management actions to reduce the threats of fire and invasive species. In fiscal year 2018, the BLM funded approximately $29 million in sage-grouse management actions resulting in approximately 500,000 acres of treated sage-grouse habitat and expects to invest another $22.5 million of habitat management projects in fiscal year 2019 in the Great Basin Region.

The BLM would continue to apply the mitigation hierarchy as described in the CEQ regulations at 40 CFR 1508.20; however, the BLM would focus on avoiding, minimizing, rectifying, and reducing impacts over time. Compensation, which involves replacing or providing substitute resources for the impacts (including through payments to fund such work), would be considered only when voluntarily offered by a proponent, required by a law other than FLPMA, or to meet a State requirement. The BLM commits to cooperating with the State to analyze applicant-proposed or state-imposed compensatory mitigation to offset residual impacts. The BLM remains committed to achieving the planning-level management goals and objectives identified in this ROD and the 2015 ARMPA by ensuring Greater Sage-Grouse habitat impacts are addressed through implementing mitigating actions consistent with the governing RMP.

In all GRSG habitat, before authorizing third-party actions that result in habitat loss and degradation within the State of Nevada, the BLM will complete the following steps, in alignment with the State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended), including avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions:

1. Notify the State of Nevada's Sagebrush Ecosystem Technical Team to determine if the State requires or recommends any mitigation – including avoidance, minimization, or compensatory mitigation – under the States' regulations, policies, or programs, such as required by the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), related to the conservation of GRSG.
2. Incorporate the States' required or recommended mitigation into the BLM's NEPA decision-making process, if the State of Nevada's Sagebrush Ecosystem Technical Team determines that there are unacceptable residual impacts on GRSG or its habitat and compensatory mitigation is required as a part of the State's policy or authorization, such as required by the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), or if a proponent voluntarily offers mitigation.
3. Verify that the project proponent has coordinated with the State of Nevada's Sagebrush Ecosystem Technical Team to ensure it complies with the State of Nevada's Greater Sage-Grouse Conservation Plan (2014, as amended) and all applicable State requirements relating to its proposal.

The BLM will cooperate with the States to determine appropriate project design and alignment with the States' policies and requirements, including those regarding compensatory mitigation, such as the State of

Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law). When the BLM is considering compensatory mitigation as a component of the project proponent's submission or based on a requirement of or recommendation from the States, the BLM's NEPA analysis will evaluate the need to avoid or minimize impacts of the proposed project and achieve the goals and objectives of this Approved RMPA. With respect to any State compensatory mitigation requirements, the BLM will defer to the appropriate State authority to quantify habitat offsets, durability, and other aspects used to determine the recommended compensatory mitigation action.

The BLM will not deny a proposed authorization in GRSG habitat solely on the grounds that the proponent has not proposed or agreed to undertake voluntary compensatory mitigation, unless required by an existing States' authority such as the State of Nevada's Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law).

The BLM will ensure project design is aligned with the States' requirements—including compensatory mitigation—that may be necessary to comply with State's policies and programs for the conservation of GRSG. Where compensatory mitigation is required as part of a States' plan, program, or authority, such as Nevada State Executive Order 2018-32 (and any future regulations adopted by the State of Nevada regarding compensatory mitigation, consistent with federal law), the BLM will include the required mitigation in all of its action alternatives in a NEPA analysis.

~~In Nevada, coordinate with the SETT on the application of a compensatory mitigation program, such as the Nevada Conservation Credit System (CCS) (**Appendix N**) for mitigating activities that result in habitat loss and degradation of GRSG habitat in Nevada, where the application of compensatory mitigation will occur on or the credit will be applied to disturbance on BLM-administered lands.~~

MD MIT 2: On BLM-administered lands within Nevada and California, when authorizing third-party actions that will result in direct, indirect, or cumulative impacts on GRSG or their habitat, the BLM will defer to the State of Nevada's most current version of the Habitat Quantification Tool (HQT) to quantify those impacts to ensure consistency in tracking and reporting changes to GRSG habitat quality and quantity.

~~Identify compensatory mitigation areas in PHMAs and GHMAs with the potential to achieve GRSG habitat objectives (**Table 2-2**), in accordance with FIAT, the SFA prioritization, and the State of Nevada Strategic Action Plan.~~

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2.3 GLOSSARY

Adaptive Management. A type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. The results are used to modify management policy, strategies, and practices.

Amendment. The process for considering or making changes in the terms, conditions, and decisions of approved resource management plans or management framework plans. Usually only one or two issues are considered that involve only a portion of the planning area.

Anthropogenic Disturbance. The direct loss or fragmentation of habitat due to human development and increased human activity causing the displacement of individuals through avoidance behavior (Holloran 2005)

Avoidance/Avoidance Area. These terms usually address mitigation of some activity (i.e., resource use). Paraphrasing the CEQ Regulations (40 CFR 1508.20), avoidance means to circumvent, or bypass, an impact altogether by not taking a certain action, or parts of an action. Therefore, the term "avoidance" does not necessarily prohibit a proposed activity, but it may require the relocation of an action, or the total redesign of an action to eliminate any potential impacts resulting from it.

Best Management Practices (BMP). A suite of techniques that guide or may be applied to management actions to aide in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a planning decision unless the plans specify that they are mandatory.

Biologically Significant Unit (BSU). A geographical/spatial area within Greater Sage-Grouse habitat that contains relevant and important habitats that are used as the basis for comparative calculations to support evaluation of changes to habitat and populations. For adaptive management (A**ppendix D**) BSUs are defined as nested lek clusters with similar climate and vegetation conditions.

Breeding Habitat. Habitats utilized by Greater Sage-Grouse for leks, pre-laying, nesting, and early brood-rearing.

Compensatory Mitigation. Compensating for the residual impacts by replacing or providing substitute resources or environments (40 CFR 1508.20).

Connectivity. The degree to which habitats for a species are continuous or interrupted across a spatial extent. Habitats defined as continuous are within a prescribed distance over which a species can successfully conduct key activities (e.g., effective dispersal distances of seeds or juveniles and mean distances moved for foraging, nesting, and brood-rearing). Habitats defined as interrupted are outside the prescribed distance (Wisdom et al. 2003).

Controlled Surface Used (CSU). CSU areas are open to fluid mineral leasing, but the stipulation allows the BLM to require special operational constraints, or the activity can be shifted more than 200 meters (656 feet) to protect the specified resource or value.

Cooperating Agency. Assists the lead federal agency in developing an environmental assessment or environmental impact statement. These can be any agency with jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any tribe or federal, state, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Council on Environmental Quality (CEQ). An advisory council to the President of the US established by the National Environmental Policy Act of 1969. It reviews federal programs to analyze and interpret environmental trends and information.

Cumulative Effects. The direct and indirect effects of a proposed project alternative's incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action.

Decision Area. Public lands and mineral estate managed by the US Department of Interior, Bureau of Land Management that are within the planning area and are encompassed by all designated habitat.

Direct Impacts. Direct impacts are caused by an action or implementation of an alternative and occur at the same time and place.

Disturbance. Any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment (White and Pickett 1985). See also *Anthropogenic Disturbance.*

Early Brood-Rearing Habitat. Upland sagebrush sites relatively close to nest sites, typically characterized by high species richness, with an abundance of forbs and insects, where Greater Sage-Grouse hens raise chicks fewer than 21 days old (Connelly et al. 2000). Optimum early brood-rearing habitat consists of sagebrush stands and an herbaceous understory of grasses and forbs.

Ecological Site (ES). A conceptual division of the landscape that is defined as a distinctive kind of land, based on recurring soil, landform, geological, and climate characteristics. It differs from other kinds of land in its ability to produce distinctive kinds and amounts of vegetation and to respond similarly to management actions and natural disturbances (Caudle et al. 2013).

Ecological Site Descriptions (ESD). The documentation of the characteristics of an ecological site. It includes the data used to define the distinctive properties and characteristics of the ecological site; the biotic and abiotic characteristics that differentiate the site (i.e., climate, physiographic, and soil characteristics and plant communities); and the ecological dynamics of the site that describes how changes in disturbance processes and management can affect the site. An ESD also provides interpretations about the land uses and ecosystem services that a particular ecological site can support and management alternatives for achieving land management.

Ecological Site Potential. The plant community that can be supported in an area, given its edaphic[6] and climatic potential (Habich 2001).

[6] Of, produced by, or influenced by the soil.

Environmental Impact Statement (EIS). A detailed statement prepared by the responsible official in which a major federal action that significantly affects the quality of the human environment is described, alternatives to the proposed action are provided, and effects are analyzed.

Fluid Minerals. Oil, gas, coal bed natural gas, and geothermal resources.

General Habitat Management Area(s) (GHMA). An area that is likely to be occupied seasonally or year-round outside of a Priority Habitat Management Area and where management will apply to sustain the Greater Sage-Grouse populations. GHMA may include active leks, seasonal habitats, and fragmented or marginal habitat.

Geographic Information System (GIS). Computer hardware, software, data, people, and applications that capture, store, edit, analyze, and display a potentially wide array of geospatial information.

Habitat. An area with a combination of resources (such as space, food, cover, and water) and environmental conditions (such as temperature, precipitation, and the presence or absence of predators and competitors) that promotes occupancy by individuals of a given species and allows those individuals to survive and reproduce (Morrison et al. 1998).

Habitat Fragmentation. When connected natural areas are disjointed by habitat removal or converted to urban or agricultural land or physical barriers, such as fences and roadways, are constructed. Habitat fragmentation bisects the landscape and leaves smaller, more isolated land for wildlife, causing local and population level changes to native flora and fauna.

Habitat Management Area(s) (HMA). The spatial extent of Greater Sage-Grouse habitat management areas in Nevada and Northeastern California (specific to BLM-administered lands) in this Approved RMPA; includes Priority (PHMA), General (GHMA) and Other Habitat Management Area(s) (OHMA).

Habitat Suitability. The relative appropriateness of a certain ecological area for meeting the life requirements of an organism (i.e., space, food, cover, and water). Categories of habitat suitability include suitable, marginal, potential, unsuitable, and non-habitat. Definitions of categories are included in this glossary (Stiver et al. 2015).

Impact. The effect, influence, alteration, or imprint caused by an action.

Indirect Impacts. Indirect impacts result from implementing an action or alternative but usually occur later in time or are removed in distance and are reasonably certain to occur.

Landscape. A mosaic of landforms, vegetation, and land uses; a heterogeneous land area that is often hierarchically structured and varies in extent with the organisms being studied and the purpose for defining a landscape (Urban et al. 1987; Liu and Taylor 2002).

Late Brood-Rearing Habitat. Habitats characterized by succulent forbs next to or intermixed with sagebrush. Hens typically move their chicks to more mesic conditions, such as higher elevation sagebrush communities, wet meadow complexes, or agricultural fields. In general, a sagebrush ecosystem with a good understory of grasses and forbs and associated wet meadow areas, where succulent grasses and insects are available.

Leasable Minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. These include energy-related mineral resources such as oil, natural gas, coal and geothermal, and some non-energy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lease Stipulation. A modification of the terms and conditions on a standard lease form at the time of the lease sale.

Lek. A traditional display area where two or more male Greater Sage-Grouse have attended in 2 or more of the previous 5 years. The area is typically in an open site in or next to sagebrush-dominated habitats (Connelly et al. 2003). Generally, lek sites are traditional, with the same lek sites used year after year (Scott 1942; Batterson and Morse 1948; Wiley 1978; Autenrieth 1981). Taller sagebrush on the outskirts of the leks is necessary as a food source, escape cover, nesting cover for females, and loafing cover during the day (Patterson 1952; Gill 1965; Klebenow 1985). Lek status as defined by the NDOW and CDFW as follows:

Active Lek: Two or more male observed at least twice in the last five years
Pending Lek: Two or more males observed only once in the last five years
Inactive: Zero or one male observed during every visit (minimum two visits) in the last five years
Historic: Zero or one male observed during every visit (minimum five visits) in the last 30 years

Lek Cluster. A group of leks in the same vicinity, among which Greater Sage-Grouse may interchange over time, and representing a group of closely related individuals.

Long-Term Effect. The effect could occur for an extended period after implementation of the alternative. The effect could last several years or more.

Management Decision. A decision made by the BLM to manage public lands. Management decisions include both land use plan decisions and implementation decisions.

Marginal Habitat. An area that supports the species but has generally lower survival rates and reproductive success by comparison and may or may not have the potential to become suitable in the future (Cooperrider et al. 1986).

Minimization Mitigation. Minimizing impacts by limiting the degree or magnitude of the action and its implementation (40 CFR 1508.20 [b]).

Mitigation. Includes specific means, measures or practices that could reduce, avoid, or eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action, minimizing the impact by limiting the degree of magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitation, or restoring the affected environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and compensating for the impact by replacing or providing substitute resources or environments and have not been incorporated into a proposed action of an alternative (H-1790).

Modification. A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied.

No Surface Occupancy (NSO). A major constraint where use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Areas identified as NSO are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits will require horizontal drilling from outside the boundaries of the NSO area.

Non-habitat. An area in the historical distribution of Greater Sage-Grouse that is unoccupied, does not currently provide habitat, and does not have the potential to provide habitat in the foreseeable future (fewer than 100 years) (Stiver et al. 2015).

Other Habitat Management Area(s) (OHMA). Areas with appropriate environmental conditions for Greater Sage-Grouse that are less used by Greater Sage-Grouse or have marginal habitat suitability.

Planning Area. The geographical area for which resource management plans are developed and maintained regardless of jurisdiction.

Planning Criteria. The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamlines and simplifies the resource management planning actions.

Planning Issues. Concerns, conflicts, and problems with the existing management of public lands. Frequently, issues are based on how land uses affect resources. Some issues are concerned with how land uses can affect other land uses, or how the protection of resources affects land uses.

Policy. This is a statement of guiding principles, or procedures, designed and intended to influence planning decisions, operating actions, or other affairs of the BLM. Policies are established interpretations of legislation, executive orders, regulations, or other presidential, secretarial, or management directives.

Potential Habitat. An area that is currently unoccupied but has the potential for occupancy in the foreseeable future (fewer than 100 years) through succession or restoration (Stiver et al. 2015).

Priority Habitat Management Area(s) (PHMA). Areas that have been identified as having the highest conservation value to maintaining sustainable Greater Sage-Grouse populations. These areas are occupied seasonally or year-round and include breeding, late brood-rearing, and winter concentration areas.

Rectifying Mitigation. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment (40 CFR 1508.20)

Reducing Mitigation. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action (40 CFR 1508.20)

Resilience. Ability of a species or its habitat to recover from stresses and disturbances. Resilient ecosystems regain their fundamental structure, processes, and functioning when altered by stresses, such as increased carbon dioxide, nitrogen deposition, and drought, and to disturbances, such as land development and fire (Allen et al. 2005; Holling 1973).

Resistance. Capacity of an ecosystem to retain its fundamental structure, processes and functioning or to remain largely unchanged, despite stresses, disturbances, or invasive species (Folke et al. 2004).

Required Design Feature (RDF). Means, measures, or practices intended to reduce or avoid adverse environmental impacts. A suite of features that will establish the minimum specifications for certain activities (i.e., water developments, mineral development, and fire and fuels management) and mitigate adverse impacts. These design features will be required to provide a greater level of regulatory certainty than through implementation of best management practices. In general, the design features are accepted practices that are known to be effective when implemented properly at the project level.

Resource Management Plan (RMP). A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land-use allocations, coordination guidelines for multiple use, objectives, and actions to be achieved.

Short-Term effect. The effect occurs only during or immediately after implementation of the alternative.

State-and-Transition Model. A method to organize and communicate complex information about the relationships between vegetation, soil, animals, hydrology, disturbances (fire, lack of fire, grazing and browsing, drought, unusually wet periods, insects, and disease), and management actions on an ecological site (Caudle et al. 2013).

Stipulation (general). A term or condition in an agreement or contract.

Stipulation (oil and gas). A provision that modifies standard oil and gas lease terms and conditions in order to protect other resource values or land uses and is attached to and made a part of the lease. Typical lease stipulations include no surface occupancy, timing limitations, and controlled surface use. Lease stipulations are developed through the land use planning process.

Suitable Habitat. An area that provides environmental conditions necessary for successful survival and reproduction to sustain stable populations (Cooperrider et al. 1986; Morrison et al. 1998).

Unsuitable Habitat. An area that does not currently provide one or more of the life requisites and therefore does not provide habitat but may provide habitat sometime in the foreseeable future (fewer than 100 years) through succession or restoration (Stiver et al. 2015).

Winter Habitat. Characterized by highly variable sagebrush canopy cover. In general, winter movements are related to severity of winter weather, topography, and vegetation cover. Consists of sagebrush that is at least 10 to 12 inches above snow level in order to provide both food and cover for wintering Greater Sage-Grouse.