BLM

Record of Decision and Approved Utah Greater Sage-Grouse Resource Management Plan Amendment

Prepared by:
US Department of the Interior
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United States Department of the Interior

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MAR 1 4 2019

In Reply Refer To:
1610 /(UT-935)

Dear Reader:

Enclosed is the *Utah Greater Sage-Grouse Approved Resource Management Plan Amendment and Record of Decision* (2019 Approved RMPA and ROD). The Bureau of Land Management (BLM) prepared this document 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 BLM Vernal, Moab, Price, Richfield, Kanab, Cedar City, Fillmore, and Salt Lake Field Offices and the Grand Staircase-Escalante National Monument. The planning area covers approximately 48 million acres in 27 of Utah's 29 counties (all except Washington and San Juan). Within this area, approximately 2.5 million acres are mapped as containing Greater Sage-Grouse habitat administered by the BLM, as well as approximately 1.5 million acres of BLM-administered federal mineral estate beneath non-federal surface ownership or National Forest System lands. BLM Utah manages Greater Sage-Grouse habitat as part of its multiple use management in 14 Resource Management Plans across the State. In 2015, these plans were amended to include specific goals, objectives, allocations, and management actions within Habitat Management Areas to conserve, enhance and restore Greater Sage-Grouse habitat.

On October 11, 2017, following the direction in Secretary's Order 3353, *American Energy Independence,* 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 plans in alignment with the State of Utah's Conservation Plan for Greater Sage-Grouse and related conservation strategies. On May 4, 2018, the BLM 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 (the Preferred Alternative). The Draft RMPA/EIS was available for a 90-day public comment from May 4, 2018

to August 2, 2018. BLM Utah received 31,276 copies of form letters and 63 unique letters during the 90-day public comment period.

On December 7, 2018 the BLM Utah released the Proposed Resource Management Plan Amendment and Final Environmental Impact Statement (Proposed RMPA/Final EIS) for a 30-day protest period and a 60-day Governor's Consistency Review. The BLM received 8 protest letters.

With this ROD the BLM now completes the process by finalizing the 2019 Approved RMPA that will guide management of Greater Sage-Grouse habitat on BLM-administered lands in Utah. The 2019 Approved RMPA and ROD are available electronically on BLM's ePlanning website: hhttps://bit.ly/2TieTI9.

The BLM appreciates the public involvement and the participation of groups, organizations, cooperating agencies, other federal, state and local agencies, and Native American Tribes who contributed to the completion of this 2019 Approved RMPA. This participation informed and improved the planning process and the planning documents.

Your continued involvement is encouraged as the 2019 Approved RMPA is implemented and monitored as we move forward in managing the public lands together.

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

Sincerely,

Edwin L. Roberson
State Director
Bureau of Land Management

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TABLES

APPENDICES

The appendices below from the 2015 Approved RMPA have been modified in the 2019 Approved RMPA. Those appendices are included here with the same letters as the 2015 ARMPA/ROD.

Appendix C, Required Design Features, from the 2015 Approved RMPA has been modified to remove required design features for GHMA as GHMA is no longer designated in the 2019 Approved RMPA. Similarly, 2015 Approved RMPA Appendix D, Greater Sage-Grouse Monitoring Framework, would also be modified to remove reference to GHMA. Other appendices appearing absent from those listed in the 2015 Approved RMPA have not been modified.

ACCRONYMS AND ABBREVIATIONS

	Full Phrase
AML	Appropriate Management Level
BLM	Bureau of Land Management
BMP	best management practice
BSU	biologically significant unit
CEQ	Council on Environmental Quality
CSU	controlled surface use
DOI	US Department of the Interior
EIS	environmental impact statement
FLPMA	Federal Land Policy and Management Act
GHMA	General Habitat Management Area
GRSG	Greater Sage-Grouse
HMA	Herd Management Area
HMA	Habitat Management Area
LUPA	Land Use Plan Amendment
MZ	management zone
NEPA	National Environmental Policy Act
NSO	no surface occupancy
PHMA	Priority Habitat Management Area
RDF	required design feature
RNA	Resource Natural Area
RMP	resource management plan
RMPA	resource management plan amendment
ROD	record of decision
ROW	right of way
SO	Secretary's Order
SHPO	State Historic Preservation Officer
TL	timing limitation
UDWR	Utah Division of Wildlife Resources
USGS	US Geological Survey
USFWS	US Fish and Wildlife Service

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RECORD OF DECISION

1.1 INTRODUCTION

The Bureau of Land Management (BLM) manages Greater Sage-Grouse habitat as part of the agency's multiple use mission. Between 2014 and 2015, 71 resource management plans that guide conservation of sagebrush steppe habitat on BLM-administered public lands in ten Western states were amended or revised to include specific management allocations, resource objectives and management actions for designated Greater Sage-Grouse Habitat Management Areas to help ensure conservation, enhancement, and restoration of Greater Sage-Grouse habitat. In Utah, 14 resource management plans covering BLM-managed public lands in the state were amended to reach this objective.

The BLM has used these initial resource management plans 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 an increased number of acres of sagebrush habitat in every fiscal year since 2015 in coordination with the contributions of partners, accomplishing important goals for Greater Sage-Grouse conservation and other programs and activities, including fuels, riparian, and range management.

These habitat projects show that successful conservation of Greater Sage-Grouse 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 Greater Sage-Grouse 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 Greater Sage-Grouse and its habitatThese habitat projects show that successful conservation of Greater Sage-Grouse requires a shared stewardship vision among states, private citizens, landowners and federal land management agencies. 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, and state-led efforts to conserve Greater Sage-Grouse 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 Greater Sage-Grouse and its habitats across its range.

With the publication of these Records of Decision (RODs) and Approved Resource Management Plan Amendments (ARMPAs), the BLM is now concluding a planning effort focused on furthering cooperation with western states by ensuring greater consistency between individual state plans for managing the Greater Sage-Grouse 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 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 Greater Sage-Grouse 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 Greater Sage-Grouse, the BLM issued a Notice of Intent (NOI) to amend the 2015 Resource Management Plans (RMPs) guiding Greater Sage-Grouse habitat management, focused on bringing them into closer alignment with the individual states' species 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 Greater Sage-Grouse 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 Utah and six 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 Greater Sage-Grouse and the BLM's determination that greater flexibility was needed to ensure that each state can manage the habitat within its borders for the particular needs of its landscapes and communities.

On December 7, 2018 the BLM released the Proposed Resource Management Plan Amendments and Final Environmental Impact Statements (Proposed RMPA/Final EISs) 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 2014 and 2015 revisions and amendments to BLM RMPs, as well as 3 years of on-the-ground experience with what is working to conserve sage-grouse habitat on public lands in support of healthy populations managed and conserved by the states.

Together, the amended plans retain the identification of priority habitat management areas (PHMA) for 29 million acres of BLM-administered sagebrush habitat across the western states, where the management priority is to exclude or avoid disturbance to Greater Sage-Grouse and their habitat, and to minimize impacts to PHMA where they cannot be avoided. Another 23 million acres across the west (though none in Utah) retain identification 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 Utah include protections for 2.1 million acres of PHMA on BLM-managed surface and another 1.3 million acres of PHMA on BLM-administered federal mineral estate beneath non-federal surface ownership or National Forest System lands.

Including habitat in Montana, North Dakota, and South Dakota, a total of approximately 32 million surface acres will be managed as priority habitat across the Greater Sage-Grouse's range, while an approximate 25 million acres are designated general habitat (though none in Utah). The plans will also implement a shift in objectives specific to the states' needs. A monitoring schedule remains in place for BLM-managed habitat to indicate when adaptive management measures are needed to address population declines in designated habitat, and adjust those adaptive measures once the decline has stopped. The amended plans also consider and outline procedures to permit disturbance and density cap exceedances at the entire sage-grouse population level.

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 state 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 Greater Sage-Grouse populations. Further, the amended plans reflect the BLM's determination that greater flexibility for each state to manage Greater Sage-Grouse and sagebrush habitat will lead to improved outcomes for the species.

1.2 DECISION

The decision is hereby made to approve the attached changes, displayed in **Table 1** and the attached appendices, as the 2019 Approved Resource Management Plan Amendment (2019 Approved RMPA) for the specifically identified objectives and management actions from the 2015 Approved RMPA that are contained in the following land use plans:

- Box Elder RMP
- Cedar/Beaver/Garfield/Antimony RMP
- Grand Staircase-Escalante National Monument Management Plan
- House Range RMP
- Kanab RMP
- Park City Management Framework Plan (MFP)
- Pinyon MFP
- Pony Express RMP
- Price RMP
- Randolph MFP
- Richfield RMP
- Salt Lake District Isolated Tracts Planning Analysis
- Vernal RMP
- Warm Springs RMP

This ROD and the associated 2019 Approved RMPA was prepared under the BLM's planning regulations (43 CFR 1600) implementing the Federal Land Policy and Management Act (FLPMA) (43 United States Code [U.S.C.] 1701 et seq.) and other applicable laws. An EIS was prepared in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321-4347), as amended.

1.2.1 SUMMARY OF MANAGEMENT DECISIONS

The key management decisions in the 2019 Approved RMPA include:

- Removing GHMA and associated management actions (448,600 acres).
- Removing Sagebrush Focal Areas (SFA) and associated management actions (181,100 acres); these areas will be managed as the previously underlying habitat management area (e.g., PHMA).
- Adding exceptions to restrictions, including fluid mineral no surface occupancy stipulations, if a project is in non-habitat and won't have indirect impacts to adjacent seasonal habitats.
- Adjusting mitigation standard so developments and BLM habitat improvement projects collectively improve Greater Sage-Grouse habitat throughout the state.

- Modifying project-specific mitigation so compensatory mitigation would only be considered if required by State law, regulation, or policy, or when offered voluntarily by a project proponent.
- Allowing disturbance/density cap exceedances if site information and project design elements, including mitigation volunteered by proponents or required by the State, improves habitat.
- Modifying Greater Sage-Grouse habitat objectives to reflect the best available local science.
- Modifying travel management actions in two areas that were previously identified as GHMA and managed as limited to existing routes for OHV use; management would remain limited until cultural surveys demonstrated that there would be no adverse effects to cultural sites, at which point it would be changed to open.
- Requiring adaptive management responses be linked to causal factors, requiring a review of monitoring data, and reversing management changes if a population recovers.

This 2019 Approved RMPA does not make changes to all the allocations, objectives, and management actions in the 2015 Approved RMPA/ROD. **Table 1** in the 2019 Approved RMPA below, as well as the attached appendices, depict the objectives and management actions from the 2015 Approved RMPA that are changed as a result of this 2019 Approved RMPA/ROD.

This 2019 Approved RMPA and ROD become effective on the date the ROD is signed.

1.2.2 WHAT THE 2019 APPROVED RMPA PROVIDES

The changes resulting from the 2019 Approved RMPA build upon the actions contained in the 2015 Approved RMPA. This 2019 Approved RMPA focuses on changes that clarify and increase consistency with the State of Utah's Conservation Plan for Greater Sage-Grouse related to the following topics, as well as to clarify implementation of some management actions. These targeted changes have been made in response to the following issues raised by the public, cooperating agencies, and the State of Utah.

- SFA designations/withdrawal recommendation
- Administering disturbance/density caps
- Modifying mitigation strategy
- Modifying habitat objectives
- Waivers, exceptions, and modifications for no surface occupancy stipulations
- GHMA in Utah
- Considering exceptions to Greater Sage-Grouse restrictions in PHMA
- Adaptive management (focusing responses and reversing trends)
- Fluid mineral leasing objective
- Land disposal and exchanges
- Managing habitat to manage predation
- Burial of transmission lines
- Modifying habitat management area boundaries
- Clarifying application of lek buffers
- Clarifying grazing systems and prioritization of grazing permits
- Clarifying management of water developments for livestock
- Clarifying the role of the State of Utah and counties with respect to travel management planning
- Clarifying the role of the BLM, State of Utah, and counties with respect to predator control
- Clarifying management of surface coal mining
- Decisions that require analysis of specific alternatives during implementation

Additional detail on these issues is in Section 1.5 in the December 2018 Proposed RMPA/Final EIS. This 2019 Approved RMPA does not change all of the management actions from the 2015 Approved RMPA. Only those actions associated with the issues identified above are affected. Please see **Table 1** in the Approved RMPA for the complete list of changed objectives and management actions associated with BLM-administered surface and federal mineral estate in Greater Sage-Grouse habitat in Utah.

1.2.3 WHAT THE 2019 APPROVED RMPA DOES NOT PROVIDE

This 2019 Approved RMPA does not contain decisions for resources, uses, or public lands issues beyond those associated with management of Greater Sage-Grouse habitat, and specifically protection and improvement of PHMA. This 2019 Approved RMPA does not establish any management direction for lands not administered by the BLM.

This 2019 Approved RMPA neither diminishes valid existing rights nor does it contain management for mineral estates that are not administered by the BLM. The 2019 Approved RMPA management actions for surface estate only apply to lands administered by the BLM. In addition, many management actions are not appropriate at this level of planning and are therefore not included. 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 current or future national policy.
- Funding levels and budget allocations: These are determined annually at the national level and are beyond the control of BLM State, District, or Field Offices.

The 2019 Approved RMPA/ROD does not include implementation-level decisions. Such 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.

1.3 ALTERNATIVES CONSIDERED IN THE PROPOSED RMP AMENDMENT AND FINAL EIS

The BLM evaluated two alternatives in the 2018 Draft RMPA/EIS: the No Action Alternative and the Management Alignment Alternative[1]. In the 2018 Proposed RMPA/Final EIS, the BLM adjusted the Management Alignment Alternative to be the Proposed RMPA with changes from external and internal comments on the Draft EIS. Several other alternatives were considered but not analyzed in detail (see Section 2.2 of the Final EIS). Summaries of the detailed alternatives are provided below.

1.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the BLM would not change objectives or management actions from the 2015 Approved RMPA, meaning the objectives and management actions for BLM-administered lands and

[1] The BLM's DEIS and FEIS also incorporated by reference the range of alternatives evaluated by the EISs for the 2015 land use plan amendments and revisions addressing the conservation of Greater Sage-Grouse and its habitat.

federal mineral estate would remain the same. This alternative includes the identification of SFAs, PHMA, and GHMA, with corresponding management for each category.

1.3.2 MANAGEMENT ALIGNMENT ALTERNATIVE/PROPOSED RMPA

This alternative identified in the Draft EIS was developed in coordination with the State of Utah and cooperating agencies to increase alignment with the State of Utah's Conservation Plan for Greater Sage-Grouse and the State's other strategies to support management outcomes for Greater Sage-Grouse. As envisioned by SO 3353, the BLM continued to build upon the 2015 planning effort by collaborating with 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. The Management Alignment Alternative prioritized management in PHMA to protect the seasonal habitats that support over 95 percent of Greater Sage-Grouse populations in Utah, while removing the designation and management of both SFAs and GHMA. Additionally, PHMA management would be adjusted to maintain avoidance protections while allowing site-specific adjustments at the activity-level to account for the unique nature of habitat types and distribution throughout Utah.

1.3.3 ENVIRONMENTALLY PREFERRED ALTERNATIVE

This land use planning effort builds off of the BLM's 2015 plan revisions and amendments for the conservation of the Greater Sage-Grouse and its habitat. 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 expert State agency. 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 Greater Sage-Grouse or other resources in the planning area. As described in more detail below, the 2019 Approved RMPA will enhance cooperation and coordination with the State while reducing inconsistencies between the BLM's land use plans and the State's approach to protecting and conserving Greater Sage-Grouse. Harmonizing these efforts will improve the BLM's and the State's ability to marshal resources to conserve, enhance, and restore Greater Sage-Grouse 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 State while reducing inconsistencies between the BLM's land use plans and the State's approach.

1.4 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 BLM is issuing this ROD and others throughout the west to amend 71 resource management and land use plans for Greater Sage-Grouse habitat management on public lands. Through this Record of Decision and five others, the BLM is amending 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 DOI'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 sage-grouse 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 need for greater flexibility to ensure that habitat in each state is managed for the particular needs of its landscapes and communities. This 2019 Approved RMPA builds on the measures identified and incorporated into 2015 Approved RMPA to conserve, enhance, and restore Greater Sage-Grouse by addressing threats to the species and its habitat and providing for consistent management of Greater Sage-Grouse between the BLM and the State of Utah. The 2015 Approved RMPA provided a comprehensive, coordinated, and effective conservation strategy for addressing the threats to Greater Sage-Grouse. This more focused 2019 Approved RMPA improves the management coordination between the BLM and the State of Utah for Greater Sage-Grouse. The actions taken on BLM-managed lands will now more clearly compliment the State of Utah 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 Greater Sage-Grouse and may be similarly affected by development or disturbance threats that pose a risk to Greater Sage-Grouse 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 [Greater Sage-Grouse] or to improve the condition of [Greater Sage-Grouse] habitat" across the planning area.

1.5 MITIGATION MEASURES

All practicable measures to avoid and/or minimize environmental harm are encompassed in the applicable RMPs, within the BLM's mission to provide for the management of public lands under the principles of multiple use and sustained yield. Mitigation measures were identified sufficient to "provide food and habitat for…wildlife" (FLPMA Sec 102(a)(8)) while also providing management "which recognizes the Nation's need for domestic sources of minerals, food, timber and fiber from the public lands." FLPMA Sec 102(a)(12).

1.6 PLAN MONITORING

BLM planning regulations (43 CFR 1610.4-9) require the monitoring of RMPs on a continual basis with a formal evaluation done at periodic intervals. As the RMPs which this decision amends are 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 2019 Approved RMPA, the BLM will integrate the data through a process called plan maintenance, or if needed plan amendments. These processes include 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. CEQ regulations implementing NEPA state that agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases. See 40 CFR 1505.2(c).

Additionally, the plan monitoring commitments that were made in the 2015 Approved RMPA have been retained in this amendment. Plan monitoring will continue as explained in the 2015 Approved RMPA.

1.7 PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

The public involvement, consultation, and coordination processes conducted for the 2019 Approved RMPA are described in the Proposed RMPA/Final EIS Chapter 5. This section summarizes those efforts and updates consultation and protest activities that occurred following publication of the Final EIS.

1.7.1 PUBLIC INVOLVEMENT

Public involvement on this planning effort is described in Section 5.1 of the 2018 Proposed RMPA/Final EIS. To summarize, public involvement began on October 11, 2017 when the NOI to prepare an EIS was published in the Federal Register, initiating the public scoping period. Public scoping meetings were held throughout the west during the scoping period. Locally, meetings were held in Vernal, Cedar City, and Snowville, Utah on November 14, 15, and 16, 2017, respectively.

On May 4, 2018, the Notice of Availability (NOA) for the Draft RMPA/EIS was published in the Federal Register, initiating a 90-day public comment period. Locally, the BLM held public meetings in Cedar City, Vernal, and Randolph, Utah, on June 26, 27 and 28, 2018, respectively. Comments received on the Draft RMPA/EIS and BLM's responses are summarized in Appendix 2 of the Proposed RMPA/Final EIS.

On December 7, 2018, the NOA for the Proposed RMPA/Final EIS was published in the Federal Register initiating a 30-day protest period and a 60-day Governor's Consistency review period. Due to the lapse in government funding from December 22, 2018 to January 25, 2019, the protest period was extended for an additional 9 days and ended on January 15, 2019. The BLM received eight protest letters.

1.7.2 CONSULTATION AND COORDINATION

Cooperating Agencies

The BLM worked with numerous agencies, counties, and tribes throughout the preparation of this Approved RMPA. The BLM outreach efforts and collaboration with cooperating agencies are described in Chapter 5, Section 5.2 of the Proposed RMPA/Final EIS.

The BLM extended invitations to or received requests from 42 government entities, agencies and tribes to participate as cooperating agencies. Of these, 26 agencies participated in some or all of the following activities: scoping comments, input on preliminary drafts, comments on the Draft RMPA/EIS, and/or participation in briefings, meetings, or work sessions.

Governor's Consistency Review

The FLPMA and its implementing 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 Indian 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)) In accordance with this direction, the BLM was aware of and gave consideration to State, local, and tribal plans and provided for their involvement throughout the development of the 2019 Approved RMPA. Section 5.4 in the 2018 Proposed RMPA/Final EIS identifies areas where the 2015 Approved RMPA was inconsistent with the state, county, and tribal plans, and how the 2018 Proposed RMPA affected those inconsistencies.

The Governor's consistency review ran for 60 days from December 7, 2018 to February 5, 2019. On February 4, 2019, the Governor of Utah submitted a letter to BLM State Director that identified 1) Plan Components Consistent with the Utah Plan, and 2) Clarification of Ongoing Inconsistencies or Correction to Data and Language in BLM Plan. As a result, the following clarifications have been made:

- Recognition of the State of Utah's 2019 Conservation Plan for Greater Sage-Grouse: The State of Utah finalized the Utah Conservation Plan for Greater Sage-Grouse in January, 2019. Compared to the State's 2013 Conservation Plan, management in the State's 2019 plan affected some of the conclusions of consistency in Chapter 5 of the BLM's Proposed RMPA/Final EIS. Those conclusions are adjusted in the bullets below.
- Disturbance and density caps: The State's 2019 plan adjusts the disturbance cap to 3 percent. This aligns with the BLM's disturbance cap percentage. Combined with the BLM's 2019 Approved RMPA allowing exceedances to the 3 percent cap, the State and BLM disturbance caps are more closely aligned. While some differences remain between the State and BLM caps (e.g., baseline starting point, activities considered disturbance, extent of footprint considered), the Utah Plan seeks to work with the BLM, Forest Service, and affected stakeholders to determine the most appropriate methods to monitor and implement a disturbance cap.
- Habitat objectives: The State's 2019 plan adds a table with habitat objectives, eliminating an inconsistency identified in the 2018 Proposed RMPA/Final EIS Chapter 5. The State, BLM and local researchers coordinated to ensure that the habitat objective values for the State and BLM plans align with what local science and research identify Greater Sage-Grouse in Utah are using.
- Clarification of what actions and appendices are changed from the 2015 Approved RMPA: The Governor requested the 2019 Approved RMPA be clear which components of the 2015 Approved RMPA are no longer in effect to avoid confusion regarding what management to use moving forward. To this end, **Table 1** presents changes in a side-by-side format, clearly showing the 2015 action, the 2019 changes, and the resulting management moving forward. Similarly, the list of appendices shows which appendices have been modified by the 2019 Approved RMPA and which are carried forward from the 2015 Approved RMPA.

- Coordination of lek persistence: Language was added to Appendix B (Applying Lek Buffer Distances) clarifying that a determination of impacts affecting lek persistence would be made in coordination with the appropriate State of Utah agency. This is consistent with the State's lead role in managing game species and maintaining lek location and attendance data.

Through these changes, the 2019 Approved RMPA/ROD have further increased alignment between the BLM's management of Greater Sage-Grouse habitat and the State of Utah's Conservation Plan for Greater Sage-Grouse and associated policies.

Native American Consultation

Various federal laws require the BLM to consult with American Indian tribes during the planning/NEPA decision-making process. The BLM reached out to these potentially affected Native American tribes and organizations with interests in the planning area by mail early in the planning process requesting government-to-government consultation. Throughout the process BLM line managers and project specialists met with leadership from the Ute Indian Tribe, Paiute Indian Tribe of Utah, and the Confederated Tribe of the Goshute Reservation. In addition, representatives from the BLM and the Ute Indian Tribe and the Skull Valley Band of Goshute Indians reviewed alternatives and drafts of the EIS. Towards the end of the BLM's planning process, the BLM sent a final letter to all the Tribes again offering and requesting government-to-government consultation. Consultation efforts will continue during efforts to implement management contained in the 2019 Approved RMPA.

National Historic Preservation Act Section 106 Consultation

The BLM completed consultation with the Utah State Historic Preservation Officer (SHPO), in accordance with 36 CFR Part 800. Through consultation with the Utah SHPO on the 2019 Approved RMPA the BLM modified its travel management allocations for two areas that were previously identified as GHMA: 6,320 acres in the 5-Mile Pass area and 7,900 acres in the Little Sahara Recreation Area. In these areas, the limited allocation would remain in place until cultural surveys determine that reverting to cross-country OHV use, which was in place for approximately 30 years prior to the 2015 Approved RMPA, would have no adverse effects to historic properties.

The BLM submitted a letter to the Utah SHPO concluding that the 2019 Approved RMPA would not adversely affect cultural properties and seeking input and concurrence on those findings. The BLM received a concurrence letter from the Utah SHPO on March 6, 2019. This satisfies the requirements of Section 106 of the National Historic Preservation Act for this planning effort. Future implementation-level decisions, such as project proposals or implementation-level plans, will need to include adequate consultation with SHPOs, Tribal Historic Preservation Officers, Native American tribes, and other interested parties. This is consistent with the alternative procedures set forth in the National Programmatic Agreement and relevant State protocols and programmatic agreements, or where applicable, the Section 106 regulations.

Endangered Species Act Section 7 Consultation

In accordance with Section 7 of the ESA, as amended, the BLM started informal consultation with the US Fish and Wildlife Service (USFWS) on May 17, 2018. This process was to determine if the BLM's assessment that the 2018 Proposed RMPA would not change the effects determinations, environmental baseline, or analysis for species consulted on in the 2015 Biological Assessment and resulting Biological

Opinion identified in the 2015 Proposed RMPA/Final EIS was applicable to the 2018 Proposed RMPA/Final EIS. The BLM submitted a letter to the USFWS concluding that changes in the 2018 Proposed RMPA do no alter the effects analysis or determination from the 2015 Biological Opinion. On March 6, 2019, the USFWS provided a letter concurring that no additional effects beyond the 2015 Approved RMPA Biological Opinion were anticipated to occur as a result of the changes in the 2018Proposed RMPA. As such, Section 7 consultation was completed.

1.7.3 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 NOA of the 2018 Proposed RMPA/Final EIS was published in the Federal Register (December 7, 2018).

The Office of the BLM Director received eight timely protest submissions in regards to the 2018 Proposed RMPA/Final EIS. The BLM dismissed one protest letter due to lack of standing. The BLM dismissed three protest letters as they only raised comments and not any valid protest points, pursuant to 43 CFR 1610.5-2. The remaining four protest letters raised the protest issues that fell into the following categories:

- Endangered Species Act Consultation
- FLPMA – Areas of Critical Environmental Concern and Research Natural Areas
- FLPMA – Coordinating with States
- FLPMA – Analysis of the Management Situation
- FLPMA – Mitigation
- FLPMA – Special status species management (BLM Manual 6840)
- FLPMA – Undue and unnecessary degradation
- NEPA – Best available science
- NEPA – Cumulative effects analysis
- NEPA – Impacts analysis (general)
- NEPA – Impacts analysis (grazing)
- NEPA – Impacts analysis (Greater Sage-Grouse)
- NEPA – Impact analysis (oil and gas)
- NEPA – Impact analysis (recreation)
- NEPA – Impact analysis (other)
- NEPA – Mitigation
- NEPA – Public participation
- NEPA – Purpose and Need
- NEPA – Range of alternatives
- NEPA – Response to public comments
- NEPA – Supplemental EIS
- NEPA – Tiering / Incorporation by Reference
- Other Laws

The Office of the BLM Director concluded that the BLM had followed all applicable laws, regulations, and policies and had considered all relevant resource information and public input in developing the Utah Proposed RMPA/Final EIS. The Office of the BLM Director resolved the protests without making significant changes to the 2018 Proposed RMPA/Final EIS. The BLM's decisions on Utah's protests are summarized in the 2019 Protest Resolution Report for the Utah Greater Sage-Grouse Proposed RMPA/Final EIS, which is available on the BLM Protest Resolution Reports website: https://on.doi.gov/2GSPXKX.

1.8 Availability of the Approved RMPA

Copies of the 2019 Approved RMPA / ROD may be obtained by viewing or downloading the document from the project ePlanning website located at https://bit.ly/2TieTI9.

1.9 Approval

The Utah Greater Sage-Grouse Resource Management Plan Amendment is hereby approved by the following signatory:

Edwin L. Roberson, State Director

3-14-2019

Date

APPROVED RESOURCE MANAGEMENT PLAN AMENDMENT

1.1 INTRODUCTION

Greater Sage-Grouse is a state-managed species that depends on sagebrush ecosystems. These ecosystems are managed in partnership across its range by federal, state, tribal, local, and private authorities and input. State agencies responsible for fish and wildlife management possess broad responsibility for protecting and managing fish, wildlife, and plants within their borders, except where addressed by federal law. Similarly, the Department of the Interior (DOI) has broad responsibilities to manage federal lands and resources for the public's benefit. On reservations, Native American tribes manage wildlife and their associated habitat.

State agencies are at the forefront of efforts to maintain healthy fish and wildlife populations and to conserve at-risk species. State-led efforts to conserve Greater Sage-Grouse and its habitat date back to the 1950s. For the past two decades, state wildlife agencies, federal agencies, state governments, non-governmental organizations, and many others in the range of the species have been collaborating to conserve Greater Sage-Grouse and its habitat.

In 2010, the United States Fish and Wildlife Service (USFWS) determined that listing the Greater Sage-Grouse under the Endangered Species Act of 1973 was "warranted but precluded" due to higher listing priority species. In September 2015, the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) adopted the 2015 Approved Resource Management Plan Amendments (2015 Approved RMPAs) revising 98 BLM and Forest Service plans across ten western states. In September 2015, the USFWS determined that the Greater Sage-Grouse did not warrant listing under the Endangered Species Act.

On March 29, 2017, the Secretary of the Interior (Secretary) issued Secretary's Order (SO) 3349, *American Energy Independence*. It directed DOI 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 for the purpose of enhancing cooperation among 11 western states and the BLM in managing and conserving Greater Sage-Grouse. SO 3353 directed an Interior Review Team, consisting of the BLM, the USFWS, and United States Geological Survey (USGS), to coordinate with the Sage-Grouse Task Force, which comprises representatives of the governors of each of the 11 states. They also were directed to review the 2015 Greater Sage-Grouse plans and associated policies to identify provisions that may require modification to make the plans more consistent with the individual state plans and better balance the BLM's multiple-use mission as directed by SO 3349.

On August 4, 2017, the Interior Review Team submitted its Report in Response to SO 3353. In this report, the team recommended modifying the Greater Sage-Grouse plans and associated policies to better align with the individual state plans and to meet the purpose of SO 3353. On August 4, 2017, the Secretary

issued a memorandum to the Deputy Secretary directing the BLM to implement the recommendations found in the report.

On October 11, 2017, the BLM published the Notice of Intent to Amend Land Use Plans Regarding Greater Sage-Grouse Conservation and Prepare Associated Environment Impact Statements or Environmental Assessments in the Federal Register (82 Federal Register 47248). This 2019 Approved Resource Management Plan Amendment (2019 Approved RMPA) is the result of this planning effort.

1.2 Purpose Of And Need For Action

In the Federal Land Policy and Management Act (FLPMA), Congress provided the BLM with discretion and authority to manage public lands for multiple use and sustained yield and declared it the policy of the United States to, consistent with the laws governing the administration of the public lands, coordinate planning with the land use planning and management programs of other federal, state, tribal, and local governments. Further, FLPMA specifically provides that it neither enlarges nor diminishes the authority of the states in managing fish and wildlife. As the sovereign entities with the lead role in managing game species, including Greater Sage-Grouse, states (and on reservations, tribes) play a critical role in conserving the Greater Sage-Grouse and its habitat.

In addition to FLPMA's directive to provide for enhanced cooperation and greater consistency with state, tribal and local governments, since 2015 there have been additional Executive and Secretary's Orders that direct the DOI to prioritize energy independence and greater cooperation with the states specific to the management of Greater Sage-Grouse. In light of these more recent policies (summarized in the Introduction), the purpose and need for the 2019 Approved RMPA was to modify the approach to Greater Sage-Grouse management in existing land use plans through 1) enhancing cooperation and coordination with Utah and tribes where applicable, 2) aligning with DOI and BLM policy directives that have been issued since 2015, and 3) incorporating updated local science, research, and information to better align with Utah's Conservation Plan for Greater Sage-Grouse.

1.3 Planning Area and Decision Area

The planning area for the 2019 Approved RMPA includes all of the State of Utah, regardless of jurisdiction, except lands in Washington and San Juan Counties (see Figure 1-1, Utah Planning Area). This includes over 48 million total acres and more than 20 million acres of lands administered by the BLM (see 2018 Proposed RMPA / Final Environmental Impact Statement (Final EIS) Table 1-1, Land Management in the Utah Planning Area). However, the decision area (area to which the decision applies) is limited to areas within or near Greater Sage-Grouse habitat on BLM-administered lands, which is a small portion of the planning area. All decisions in the 2019 Approved RMPA apply only to BLM-administered lands, including split-estate lands, within Greater Sage-Grouse habitat.

The BLM's Greater Sage-Grouse habitat management areas represent the local ranges of one or more Greater Sage-Grouse populations. These areas are non-contiguous, meaning they are often separated by natural geographic features/barriers or human development. In the 2019 Approved RMPA the decision area is further divided into priority habitat management areas (PHMA) and Greater Sage-Grouse habitat outside of PHMA. PHMA is defined as follows:

PHMA—Areas prioritized for managing Greater Sage-Grouse populations (management is only applicable to actions on BLM-administered lands). These management areas include high-quality habitat, and may also include areas with poor quality, potential habitat, and non-habitat. PHMA largely coincides with the State of Utah's Sage-Grouse Management Areas (SGMAs). In the SGMA, the State identified areas of seasonal habitat, non-habitat, and opportunity areas, though management is focused on the habitat. PHMA are areas that include all the seasonal habitats for the corresponding Greater Sage-Grouse populations, including breeding, late brood-rearing, winter areas, and migration or connectivity corridors.

The 2019 Approved RMPA identifies approximately 2.1 million acres of BLM-administered surface estate as PHMA. PHMA also includes 1.3 million acres are BLM-administered federal mineral estate beneath non-federal surface ownership or National Forest System lands.

The 2015 Approved RMPA identified mapped occupied habitat outside of PHMA as General Habitat Management Areas (GHMA); the 2019 Approved RMPA includes no such category. The State of Utah's plan does not map occupied habitat outside their SGMAs. The 2019 Approved RMPA aligns with the State's plan in this regard.

It is important to note that the State of Utah's maps used for occupied habitat are broad in nature, and were developed to identify the general areas of potential habitat where Greater Sage-Grouse may be found. The State's general maps, and by extension the BLM's PHMA maps, were developed with the intent that as decision-making in the mapped areas moves from broad considerations to application at more specific areas, information that is correspondingly more detailed should be reviewed to determine if a given area actually includes occupied Greater Sage-Grouse habitat.

Refer to Sections 1.3 and 3.1 in the 2018 Final EIS for more information about the planning and analysis areas established in 2015 and the changes to this area in the 2019 Approved RMPA.

There are 14 land use plans in Utah being amended through this 2019 Approved RMPA:

- Vernal Resource Management Plan (2008)
- Price Resource Management Plan (2008)
- Richfield Resource Management Plan (2008)
- Kanab Resource Management Plan (2008)
- Grand Staircase-Escalante National Monument Management Plan (2000)
- Cedar/Beaver/Garfield/Antimony Resource Management Plan (1986)
- Pinyon Management Framework Plan (1978)
- Warm Springs Resource Management Plan (1987)
- House Range Resource Management Plan (1987)
- Pony Express Resource Management Plan (1990)
- Box Elder Resource Management Plan (1986)
- Randolph Management Framework Plan (1980)
- Park City Management Framework Plan (1975)
- Salt Lake District Isolated Tracts Planning Analysis (1985)

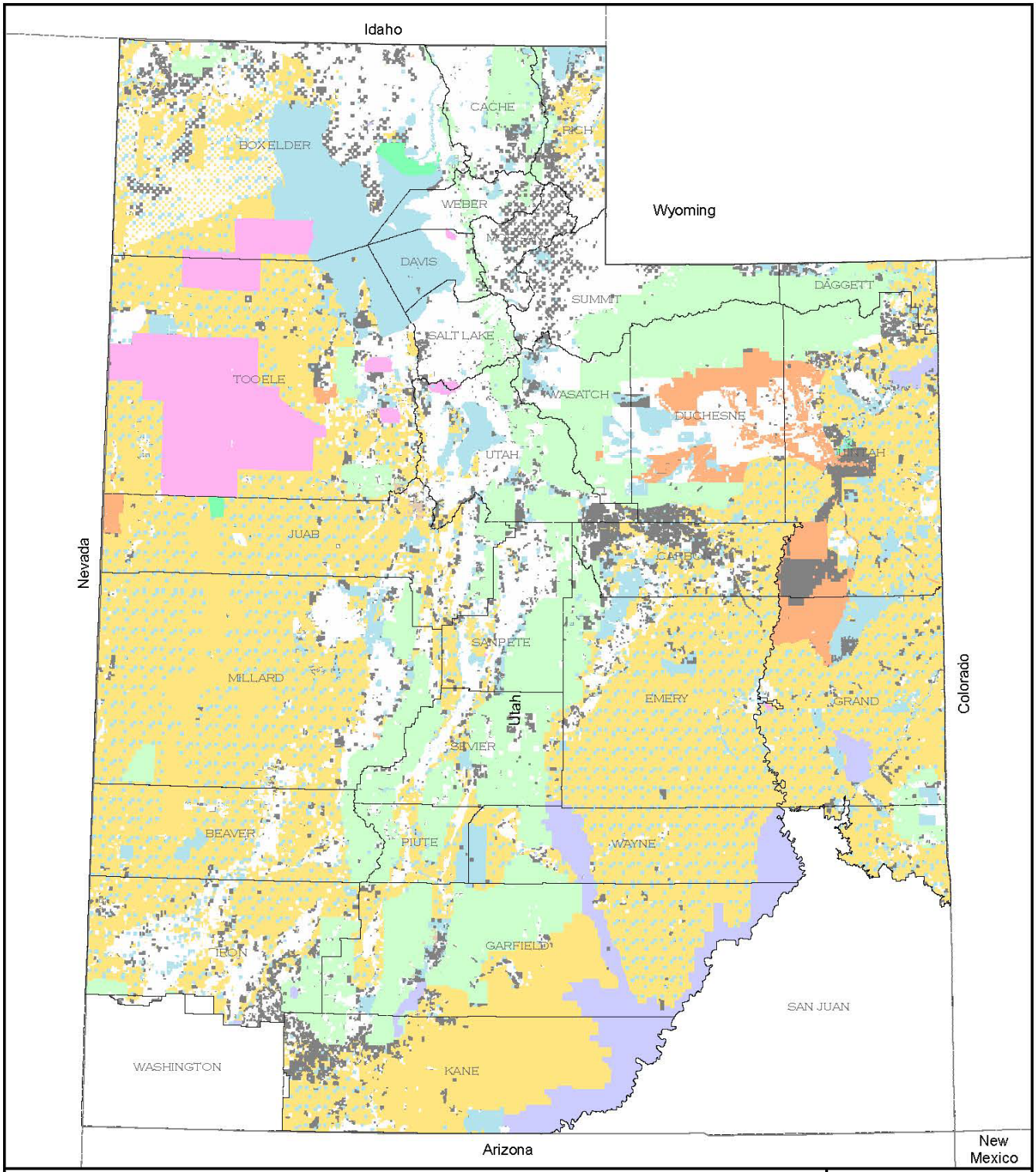

Figure 1-1: Utah Planning Area, Surface Management and Sub-Surface Estate

- Bureau of Land Management
- National Park Service
- US Forest Service
- Indian Reservation
- US Fish & Wildlife
- Department of Defense
- Other Federal
- State/Local
- Private/Other
- Non Federal Surface, Federal Sub-surface
- Planning Area Boundary
- State Boundary
- County Boundary

N W E S

0 20 40 Miles

Map Area

No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

1.4 SCOPING/ISSUES

When deciding which issues to address related to the purpose and need, the BLM considers points of disagreement, debate, or dispute regarding an anticipated outcome from a proposed action. Issues are based on anticipated environmental impacts; as such, they can help shape the proposal and alternatives.

The BLM used internal, agency, and public scoping to identify issues to consider in the environmental analysis. A summary of the scoping process is presented in Potential Amendments to Land Use Plans Regarding Greater Sage-Grouse Conservation Scoping Report (https://bit.ly/2IQCepW).

In this 2019 Approved RMPA, changes in management were limited to those that directly responded to an issue raised in scoping. Generally, those issues fell into the following categories:

- Issues retained for further consideration—These were issues raised during scoping for which alternatives were developed to address the issues.
- Clarification of decisions in the 2015 Approved RMPA—These were decisions or frameworks in the 2015 Approved RMPA that required clarification as to their application or implementation.
- Issues that were raised during scoping but were not carried forward for additional consideration or analysis.

Section 1.5 of the 2018 Proposed RMPA/Final EIS includes an enumeration of and details associated with the issues that drove the development of the 2019 Approved RMPA.

1.5 PLANNING CRITERIA

Planning criteria establish constraints, guidelines, and standards for the planning process and help the BLM define the scope of planning and analysis. The planning criteria associated with the 2019 Approved RMPA are located in section 1.4 of the 2018 Proposed RMPA/Final EIS.

1.6 RELATIONSHIP TO OTHER POLICIES, PLANS, AND PROGRAMS

The BLM recognizes the importance of state, tribal, and local plans. This is especially relevant in management of Greater Sage-Grouse, where in Utah the BLM only administers approximately half of the habitat. By law, regulation, and policy, the BLM will 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 Indian 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 following plans and strategies should be considered through coordination with the applicable government agency during implementation of the 2019 Approved RMPA.

1.6.1 STATE PLANS/STRATEGIES

State plans and strategies considered during planning are the following:

- Utah Conservation Plan for Greater Sage-Grouse (2019)
- State of Utah Executive Order 2015/002 – Implementing the Utah Conservation Plan for Greater Sage-Grouse (2015)

- State of Utah Administrative Code – R-634-003 – Compensatory Mitigation Program (2018)
- Utah Wildlife Action Plan (2015)
- Governor's 10-year Strategic Energy Plan (2011)
- Uintah Basin Energy Zone (2015)
- Green River Energy Zone (2014)
- State of Utah Resource Management Plan (2018)

1.6.2 TRIBAL PLANS/STRATEGIES

The tribal plan and strategy considered during planning was the Uintah and Ouray Greater Sage-Grouse Conservation Ordinance (2013).

1.6.3 LOCAL PLANS

Local land use plans considered during planning are the following:

- Beaver County General Plan (1994) and Beaver County Resource Management Plan (RMP)(2017)
- Box Elder County General Plan (1998, as amended) and Box Elder County RMP (2017)
- Cache County Comprehensive Plan (1998) and Cache County RMP (2017)
- Carbon County Master Plan (1997) and Carbon County RMP (2017)
- Daggett County General Plan (2009) and Daggett County RMP (2017)
- Duchesne County General Plan and Duchesne County RMP (2017)
- Emery County General Plan (1996, as amended) and Emery County RMP (2017)
- Garfield County, Utah, General Plan (1995, as amended) and Garfield County RMP (2017)
- Grand County General Plan (2012) and Grand County RMP (2017)
- Iron County General Plan (1995, as amended) and the Iron County RMP (2017)
- Juab County General Plan and Juab County RMP (2017)
- Kane County, Utah, General Plan (1998, as amended) and Kane County RMP (2017)
- Millard County General Plan (2010) and Millard County RMP (2017)
- Morgan County General Plan (2010) and Morgan County RMP (2017)
- General Plan for Piute County (1994) and Piute County RMP (2017)
- Rich County Comprehensive Plan (1996) and Rich County RMP (2017)
- Sanpete County General Plan (2010, as amended) and Sanpete County RMP (2017)
- Sevier County General Plan (1998) and Sevier County RMP (2017)
- Eastern Summit County General Plan (2010) and Summit County RMP (2017)
- Tooele County General Plan (1995) and Tooele County RMP (2017)
- Uintah County Land Use Plan (2011) and Uintah County RMP (2017)
- Uinta County Comprehensive Plan (2011)
- Uinta County Conservation District Plan
- Utah County General Plan (2006) and Utah County RMP (2017)
- Wasatch County General Plan (2010) and Wasatch County RMP (2017)
- General Plan for Wayne County (1994) and Wayne County Public Lands RMP (2017)

1.6.4 LOCAL SAGE-GROUSE WORKING GROUP PLANS

- Castle Country Greater Sage-Grouse Local Conservation Plan (2006)
- West Box Elder Greater Sage-Grouse Local Working Group Conservation Plan (2007)
- Color Country Greater Sage-Grouse Local Conservation Plan (2008)
- Morgan-Summit Greater Sage-Grouse Local Conservation Plan (2006)
- Parker Mountain-Emery Greater Sage-Grouse Local Conservation Plan (2014)
- Rich County Coordinated Resource Management Greater Sage-Grouse Conservation Plan (2006)
- Southwest Desert Greater Sage-Grouse Local Conservation Plan (2007)
- Strawberry Valley Greater Sage-Grouse Local Conservation Plan (2006)
- Uinta Basin Greater Sage-Grouse Local Conservation Plan (2007)
- West Desert Greater Sage-Grouse Local Conservation Plan (2007)

1.7 Amended Objectives and Management Actions

This 2019 Approved RMPA was developed in coordination with the State of Utah, input from other cooperating agencies and public comments, and alignment with changes in BLM regulations, policy and guidance. **Table 1** below highlights the changes in Greater Sage-Grouse (GRSG) management actions from the 2015 Approved RMPA to the 2019 Approved RMPA.

Table 1: Changes in Management from the 2015 Approved RMPA to the 2019 Approved RMPA

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
Special Status Species (SSS)	***Special Status Species (SSS)***	***Special Status Species (SSS)***
GOAL:	**GOAL:**	**GOAL:**
Goal SSS-1: Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in collaboration with other conservation partners.	No changes made.	**Goal SSS-1:** Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in collaboration with other conservation partners.
Objectives:	**Objectives:**	**Objectives:**
Objective SSS-1: Designate PHMA that are large enough to stabilize populations in the short-term and enhance populations over the long-term. Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG. Enhance or improve GRSG habitat (e.g., through restoration or rehabilitation activities) within PHMA that has been impaired or altered.	No changes made.	**Objective SSS-1:** Designate PHMA that are large enough to stabilize populations in the short-term and enhance populations over the long-term. Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG. Enhance or improve GRSG habitat (e.g., through restoration or rehabilitation activities) within PHMA that has been impaired or altered.
Objective SSS-2: In all GRSG habitat, manage activities that result in habitat loss and degradation to provide a net conservation gain of GRSG habitat. Exceptions to net conservation gain for GRSG shall be made for vegetation treatments to benefit Utah prairie dog.	**Objective SSS-2:** In ~~all GRSG habitat~~ PHMA, manage activities that result in habitat loss and degradation to improve the condition ~~provide a net conservation gain~~ of GRSG habitat across the planning area. Exceptions to this mitigation standard ~~net conservation gain~~ for GRSG shall be made for vegetation treatments to benefit Utah prairie dog.	**Objective SSS-2:** In PHMA, manage activities that result in habitat loss and degradation to improve the condition of GRSG habitat across the planning area. Exceptions to this mitigation standard for GRSG shall be made for vegetation treatments to benefit Utah prairie dog.
Objective SSS-3: In all GRSG habitat, where sagebrush is the current or potential dominant vegetation type or is a primary species within the	**Objective SSS-3:** In ~~all GRSG habitat~~ PHMA, where sagebrush is the current or potential dominant vegetation type or is a primary species	**Objective SSS-3:** In PHMA, where sagebrush is the current or potential dominant vegetation type or is a primary species within the various states of

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
various states of the ecological site description, maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, and winter habitats. The habitat objectives for GRSG (**Table 2**) is 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 sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, 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 should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. In addition, areas where PHMA and GHMA overlap mapped Utah prairie dog habitat will be managed for both species; accomplishing this shall include coordination with species specific experts to develop conservation and recovery objectives that will benefit both species. The seasonal habitat descriptions in **Table 2** vary across the range of sage-grouse, 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 sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation	within the various states of the ecological site description, maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, and winter habitats. The habitat objectives for GRSG (**Table 3**) is 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 sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, 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 should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. In addition, areas where PHMA and GHMA overlap mapped Utah prairie dog habitat will be managed for both species; accomplishing this shall include coordination with species specific experts to develop conservation and recovery objectives that will benefit both species. The seasonal habitat descriptions in **Table 3** vary across the range of sage-grouse, 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 sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation	the ecological site description, maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, and winter habitats. The habitat objectives for GRSG (**Table 4**) is 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 sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, 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 should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. In addition, areas where PHMA and GHMA overlap mapped Utah prairie dog habitat will be managed for both species; accomplishing this shall include coordination with species specific experts to develop conservation and recovery objectives that will benefit both species. The seasonal habitat descriptions in **Table 4** vary across the range of sage-grouse, 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 sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sage-grouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should 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 land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered	structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sage-grouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should 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 land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered	characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sage-grouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should 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 land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
alongside land health standards, ecological potential and local information.	alongside land health standards, ecological potential and local information.	alongside land health standards, ecological potential and local information.

Table 2. Habitat Objectives for Greater Sage-Grouse

ATTRIBUTE	INDICATORS	DESIRED CONDITION
Breeding and Nesting (February 15-June 15)[1, 2, 3, 4, 5, 6]		
Lek Security	Proximity of trees	Trees absent or uncommon on shrub/grassland ecological sites within 1.8 miles (approx. 3 kilometers) of occupied leks. [6, 7, 8]
	Proximity of sagebrush to leks	Has adjacent sagebrush cover.[6]
Cover	% of seasonal habitat meeting desired conditions	>80% of the mapped nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).[8]
	Sagebrush cover	≥15%[6, 8, 9]
	Total shrub cover[6, 8, 9]	15-30%: Box Elder, Parker Mountain, Bald Hills, Hamlin Valley, Panguitch, Uintah south of Hwy 40 15-35%: Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40
	Sagebrush height[6, 8, 9]	>12 inches (30 cm): Box Elder, Bald Hills, Hamlin Valley, Sheeprocks, Ibapah >10 inches (25 cm): Rich, Carbon, Emery, Uintah north of Highway 40 >8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40
	Predominant sagebrush shape[10]	>50% in spreading (applicable to the specific sagebrush types prone to columnar vs. spreading shape e.g., Wyoming, not black sage)[6]
	Perennial grass cover (such as native bunchgrasses, rhizomatous grasses called for on applicable ecological site descriptions, or other perennial grasses that provide similar functionality)[6, 8, 9]	>10%: Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40 >5%:Parker Mountain, Panguitch, Uintah south of Highway 40
	Perennial grass and forb height (includes residual grasses)[6, 8, 9]	Provide overhead and lateral concealment from predators.[11]
	Perennial forb canopy cover[6, 8, 9]	>5%: Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40 >3%: Parker Mountain, Panguitch, Uintah south of Highway 40
Brood-Rearing/Summer (April 15-August 15)[1]		
Cover	% of Seasonal habitat meeting desired condition	>40% of the mapped brood-rearing/summer habitat meets recommended habitat characteristics where appropriate (relative to ecological site potential, etc.)[8]
	Sagebrush cover[6, 8, 9]	>10%
	Total shrub cover[6, 8, 9]	10-25%: Box Elder, Bald Hills, Hamlin Valley, Panguitch, Rich, Parker Mountain, Uintah 10-30%: Carbon, Emery, Sheeprocks, Ibapah,
	Sagebrush height[6, 8, 9]	>12 inches (30 cm): Box Elder, Bald Hills, Hamlin Valley, Sheeprocks, Ibapah >10 inches (25 cm): Rich, Carbon, Emery, Uintah north of Highway 40 >8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40

	Perennial grass cover and forbs[6, 8, 9]	>15% (Grass: >10%; Forb: >5%): Box Elder, Rich, Sheeprocks, Ibapah, Parker Mountain, Panguitch, Uintah, Carbon, Emery >15% (Grass: >8%; Forb: >7%): Bald Hills, Hamlin Valley,
	Riparian areas/mesic meadows	Proper Functioning Condition
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present[6, 12]
Winter (November 15-March 15)[1]		
Cover and Food	% of seasonal habitat meeting desired conditions	>80% of the mapped wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.). [8]
	Sagebrush cover above snow[6, 8,]	>10%
	Sagebrush height above snow[6, 8, 9, 13]	>10 inches (25 cm): Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40 >8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40

[1] Specific dates will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, and long and/or heavy winter), in coordination with the appropriate State of Utah agency.
[2] Utah Greater Sage-Grouse Working Group 2013
[3] Doherty 2008
[4] Doherty et al. 2010
[5] Holloran and Anderson 2005
[6] Stiver et al. 2015 *In Press*
[7] Baruch-Mordo et al. 2013
[8] Connelly et al. 2000
[9] Unpublished data, Utah Community-Based Conservation Program Greater Sage-Grouse Statewide Database, Utah State University, Logan, Utah and Brigham Young University, Provo, Utah. Summarization and analysis of nesting and brood-rearing habitat characteristics from data collected through Utah State University and Brigham Young University research efforts. Researchers located the nest and brood sites using radio-marked telemetry methods. Shortly after the site was used by the marked bird (after hatch or use by a brood), vegetation characteristics on the site were measured using the line intercept method for shrub canopy cover and Daubenmire frames for herbaceous cover. Researchers across the various study areas used methods that followed the guidelines identified in Connelly et al. (2003).
[10] Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. 2015 *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.
[11] Specific height requirements needed to meet the objective will be set at the time of watershed assessments.
[12] Preferred forbs are listed in Stiver et al. 2015 *In Press*. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.
[13] The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy, sagebrush stands.

Table 3. Habitat Objectives for Greater Sage-Grouse (see Figure 3-1 for the Low, Mid, and High Habitat Objective Zones)

ATTRIBUTE	INDICATORS	DESIRED CONDITION
Breeding and Nesting (February 15-June 15)[1, 2, 3, 4, 5, 6]		
Lek Security	Proximity ~~of trees~~ to conifers	~~Trees~~ Conifers are absent or uncommon on shrub/grassland ecological sites within 1.8 miles (approx. 3 kilometers) of occupied leks.[6, 7, 8]
	Proximity of sagebrush to leks	Has adjacent sagebrush cover.[6]
Cover	% of seasonal habitat meeting desired conditions	>80% of the mapped nesting habitat meets the recommended vegetation characteristics[8], where appropriate (relative to ecological site potential, etc.).[8]
	Sagebrush cover[9]	Low: >7% Mid: >18% High: >14% ~~>15%[6, 8, 9]~~
	Total shrub cover[6, 8, 9]	Low: >17% Mid: >22% High: >19% ~~15-30%: Box Elder, Parker Mountain, Bald Hills, Hamlin Valley, Panguitch, Uintah south of Hwy 40~~ ~~15-35%: Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40~~
	Sagebrush Composition[9]	Low: >36% Mid: >71% High: >83%
	~~Sagebrush~~ Shrub height[6, 8, 9]	Low: > 12 inches (30 cm) Mid: > 5.9 inches (15 cm) High: >9 inches (23 cm) ~~>12 inches (30 cm): Box Elder, Bald Hills, Hamlin Valley, Sheeprocks, Ibapah~~ ~~>10 inches (25 cm): Rich, Carbon, Emery, Uintah north of Highway 40~~ ~~>8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40~~
	~~Predominant sagebrush shape[10]~~	~~>50% in spreading (applicable to the specific sagebrush types prone to columnar vs. spreading shape e.g., Wyoming, not black sage)[6]~~
	Perennial grass cover (such as native bunchgrasses, rhizomatous grasses called for on applicable ecological site descriptions, or other perennial grasses that provide similar functionality)[6, 8, 9]	Low: >5% Mid: >4% High: >8% ~~>10%: Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40~~ ~~>5%:Parker Mountain, Panguitch, Uintah south of Highway 40~~
	Perennial grass and forb height (includes residual grasses)[6, 8, 9]	Provide overhead and lateral concealment from predators.[11]

	Perennial forb canopy cover[6, 8, 9]	Low: >2% Mid: >1% High: >4% ~~>5%: Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40~~ ~~>3%: Parker Mountain, Panguitch, Uintah south of Highway 40~~
Brood-Rearing/Summer (April 15-August 15)[1]		
Cover	% of Seasonal habitat meeting desired condition	>40% of the mapped brood-rearing/summer habitat meets recommended habitat characteristics[9] where appropriate (relative to ecological site potential, etc.)[9]
	Sagebrush cover[6, 8, 9]	Low: >4% Mid: >16% High: >17% ~~>10%~~
	Total shrub cover[6, 8, 9]	Low: >10% Mid: >19% High: >15% ~~10-25%: Box Elder, Bald Hills, Hamlin Valley, Panguitch, Rich, Parker Mountain, Uintah~~ ~~10-30%: Carbon, Emery, Sheeprocks, Ibapah,~~
	Sagebrush Composition[9]	Low: >28% Mid: >77% High: >77%
	~~Sagebrush~~ Shrub height[6, 8, 9]	Low: > 10.25 inches (26 cm) Mid: > 4.3 inches (11 cm) High: >8 inches (20 cm) ~~>12 inches (30 cm): Box Elder, Bald Hills, Hamlin Valley, Sheeprocks, Ibapah~~ ~~>10 inches (25 cm): Rich, Carbon, Emery, Uintah north of Highway 40~~ ~~>8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40~~
	Perennial grass cover ~~and forbs~~[6, 8, 9]	Low: >5% Mid: >6% High: >8% ~~>15% (Grass: >10%; Forb: >5%): Box Elder, Rich, Sheeprocks, Ibapah, Parker Mountain, Panguitch, Uintah, Carbon, Emery~~ ~~>15% (Grass: >8%; Forb: >7%): Bald Hills, Hamlin Valley,~~
	Perennial forb cover[9]	Low: >2% Mid: >2% High: >6%
	Riparian areas/mesic meadows	Proper Functioning Condition
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present[6, 12]

Winter (November 15-March 15)[1]		
Cover and Food	% of seasonal habitat meeting desired conditions	>80% of the mapped wintering habitat meets winter habitat characteristics[8] ~~[8]~~ where appropriate (relative to ecological site, etc.). ~~[8]~~
	Sagebrush cover above snow[6, 8,]	>10%
	~~Sagebrush~~ Shrub height ~~above snow~~[6, 8, 9, 13]	Low: > 12 inches (30 cm) Mid: > 5.9 inches (15 cm) High: >9 inches (23 cm) ~~>10 inches (25 cm): Box Elder, Bald Hills, Hamlin Valley, Rich, Carbon, Emery, Sheeprocks, Ibapah, Uintah north of Highway 40~~ ~~>8 inches (20 cm): Parker Mountain, Panguitch, Uintah south of Highway 40~~

[1] Specific dates will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, and long and/or heavy winter), in coordination with the appropriate State of Utah agency.
[2] Utah Greater Sage-Grouse Working Group 2013
[3] Doherty 2008
[4] Doherty et al. 2010
[5] Holloran and Anderson 2005
[6] Stiver et al. 2015 ~~*In Press*~~
[7] Baruch-Mordo et al. 2013
[8] Connelly et al. 2000
[9] Dahlgren, D., T. A. Messmer, B. A. Crabb, M. T. Kohl, S. N. Frey, E. Thacker, R. T. Larsen, and R. J. Baxter. (In Review). An empirical approach to refining Greater Sage-Grouse (Centrocercus urophasianus) breeding habitat guidelines. Ecosphere. ~~Unpublished data, Utah Community-Based Conservation Program Greater Sage-grouse Statewide Database, Utah State University, Logan, Utah and Brigham Young University, Provo, Utah. Summarization and analysis of nesting and brood-rearing habitat characteristics from data collected through Utah State University and Brigham Young University research efforts. Researchers located the nest and brood sites using radio-marked telemetry methods. Shortly after the site was used by the marked bird (after hatch or use by a brood), vegetation characteristics on the site were measured using the line intercept method for shrub canopy cover and Daubenmire frames for herbaceous cover. Researchers across the various study areas used methods that followed the guidelines identified in Connelly et al. (2003).~~
~~[10] Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. 2015 *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.~~
[11] Specific height requirements needed to meet the objective will be set at the time of watershed assessments.
[12] Preferred forbs are listed in Stiver et al. 2015 ~~*In Press*~~. Overall total forb cover may be greater than that of preferred forb cover, since not all forb species are listed as preferred.
~~[13] The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy, sagebrush stands.~~

Table 4. Habitat Objectives for Greater Sage-Grouse (see Figure 3-1 for the Low, Mid, and High Habitat Objective Zones)

ATTRIBUTE	INDICATORS	DESIRED CONDITION
Breeding and Nesting (February 15-June 15)[1, 2, 3, 4, 5, 6]		
Lek Security	Proximity to conifers	Conifers are absent or uncommon on shrub/grassland ecological sites within 1.8 miles (approx. 3 kilometers) of occupied leks.[6, 7, 8]
	Proximity of sagebrush to leks	Has adjacent sagebrush cover.[6]
Cover	% of seasonal habitat meeting desired conditions	>80% of the mapped nesting habitat meets the recommended vegetation characteristics[8], where appropriate (relative to ecological site potential, etc.).
	Sagebrush cover[9]	Low: ≥ 7% Mid: ≥ 18% High: ≥ 14%
	Total shrub cover[6, 8, 9]	Low: ≥ 17% Mid: ≥ 22% High: ≥ 19%
	Sagebrush Composition[9]	Low: ≥ 36% Mid: ≥ 71% High: ≥ 83%
	Shrub height[6, 8, 9]	Low: ≥ 12 inches (30 cm) Mid: ≥ 5.9 inches (15 cm) High: ≥ 9 inches (23 cm)
	Perennial grass cover (such as native bunchgrasses, rhizomatous grasses called for on applicable ecological site descriptions, or other perennial grasses that provide similar functionality)[6, 8, 9]	Low: ≥ 5% Mid: ≥ 4% High: ≥ 8%
	Perennial grass and forb height (includes residual grasses)[6, 8, 9]	Provide overhead and lateral concealment from predators.[11]
	Perennial forb canopy cover[6, 8, 9]	Low: ≥ 2% Mid: ≥ 1% High: ≥ 4%
Brood-Rearing/Summer (April 15-August 15)[1]		
Cover	% of Seasonal habitat meeting desired condition	>40% of the mapped brood-rearing/summer habitat meets recommended habitat characteristics[8] where appropriate (relative to ecological site potential, etc.)

	Sagebrush cover[6, 8, 9]	Low: ≥ 4% Mid: ≥ 16% High: ≥ 17%
	Total shrub cover[6, 8, 9]	Low: ≥ 10% Mid: ≥ 19% High: ≥ 15%
	Sagebrush Composition[9]	Low: ≥ 28% Mid: ≥ 77% High: ≥ 77%
	Shrub height[6, 8, 9]	Low: ≥ 10.25 inches (26 cm) Mid: ≥ 4.3 inches (11 cm) High: ≥ 8 inches (20 cm)
	Perennial grass cover[9]	Low: ≥ 5% Mid: ≥ 6% High: ≥ 8%
	Perennial forb cover[9]	Low: ≥ 2% Mid: ≥ 2% High: ≥ 6%
	Riparian areas/mesic meadows	Proper Functioning Condition
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present[6, 12]
Winter (November 15-March 15)[1]		
Cover and Food	% of seasonal habitat meeting desired conditions	>80% of the mapped wintering habitat meets winter habitat characteristics[8] where appropriate (relative to ecological site, etc.).
	Sagebrush cover above snow[6, 8,]	≥10%
	Shrub height[9]	Low: ≥ 12 inches (30 cm) Mid: ≥ 5.9 inches (15 cm) High: ≥ 9 inches (23 cm)

[1] Specific dates will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, and long and/or heavy winter), in coordination with the appropriate State of Utah agency.
[2] Utah Greater Sage-Grouse Working Group 2013
[3] Doherty 2008
[4] Doherty et al. 2010
[5] Holloran and Anderson 2005
[6] Stiver et al. 2015
[7] Baruch-Mordo et al. 2013
[8] Connelly et al. 2000
[9] Dahlgren, D., T. A. Messmer, B. A. Crabb, M. T. Kohl, S. N. Frey, E. Thacker, R. T. Larsen, and R. J. Baxter. (In Review). An empirical approach to refining Greater Sage-Grouse (Centrocercus urophasianus) breeding habitat guidelines. Ecosphere.
[11] Specific height requirements needed to meet the objective will be set at the time of watershed assessments.
[12] Preferred forbs are listed in Stiver et al. 2015. Overall total forb cover may be greater than that of preferred forb cover, since not all forb species are listed as preferred.

Table 1 (continued)

Changes in Management Decisions from the 2015 Approved RMPA to the 2019 Approved RMPA

2015 BLM GRSG Approved RMP Amendment

Objective SSS-4: Within PHMA, increase the amount and functionality of seasonal habitats by:

- Maintaining or increasing sagebrush in perennial grasslands, where needed to meet the Habitat Objectives for Greater Sage-Grouse (**Table 2**), unless there is a conflict with Utah prairie dog.
- Reducing conifer (e.g., pinyon/juniper) from areas that are most likely to support GRSG at a rate that is at least equal to the rate of encroachment.
- Reducing the extent of annual grasslands.
- Maintaining or improving corridors for migration or movement between seasonal habitats, as well as for long-term genetic connections between populations.
- Maintaining or improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
- Conducting vegetation treatments based on the following 10-year (decadal) acreage objectives:

Table 5. Vegetation Treatments per 10-year (decadal) Acreage Objectives (2015)

Population Areas	Mechanical Treatment1	Annual Grass Treatment1
Box Elder	9,300	17,800
Ibapah; Hamlin Valley	17,900	2,100
Rich; Uintah	40,700	6,800
Carbon	2,600	200
Bald Hills; Panguitch	43,900	8,900
Parker Mountain	32,800	2,200

Changes between 2015 and 2019 GRSG Management

Objective SSS-4: Within PHMA, increase the amount and functionality of seasonal habitats by:

- Maintaining or increasing sagebrush in perennial grasslands, where needed to meet the Habitat Objectives for Greater Sage-Grouse (**Table 3**), unless there is a conflict with Utah prairie dog.
- Reducing conifer (e.g., pinyon/juniper) from areas that are most likely to support GRSG at a rate that is at least equal to the rate of encroachment.
- Reducing the extent of invasive annual grasslands.
- Maintaining or improving corridors for migration or movement between seasonal habitats, as well as for long-term genetic connections between populations.
- Maintaining or improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
- Conducting vegetation treatments based on the following 10-year (decadal) acreage objectives:

Table 6. Vegetation Treatments per 10-year (decadal) Acreage Objectives (2015 to 2019)

Population Areas	Mechanical Treatment[1]	Annual Grass Treatment[1]
Box Elder	9,300	17,800
Ibapah; Hamlin Valley	17,900	2,100
Rich; Uintah	40,700	6,800
Carbon	2,600	200
Bald Hills; Panguitch	43,900	8,900

2019 BLM GRSG Approved RMP Amendment

Objective SSS-4: Within PHMA, increase the amount and functionality of seasonal habitats by:

- Maintaining or increasing sagebrush in perennial grasslands, where needed to meet the Habitat Objectives for Greater Sage-Grouse (**Table 4**), unless there is a conflict with Utah prairie dog.
- Reducing conifer (e.g., pinyon/juniper) from areas that are most likely to support GRSG at a rate that is at least equal to the rate of encroachment.
- Reducing the extent of invasive annual grasslands.
- Maintaining or improving corridors for migration or movement between seasonal habitats, as well as for long-term genetic connections between populations.
- Maintaining or improving understory (grass, forb) and/or riparian condition within breeding and late brood-rearing habitats.
- Conducting vegetation treatments based on the following 10-year (decadal) acreage objectives:

Table 7. Vegetation Treatments per 10-year (decadal) Acreage Objectives (2019)

Population Areas	Mechanical Treatment[1]	Annual Grass Treatment[1]
Box Elder	9,300	17,800
Ibapah; Hamlin Valley	17,900	2,100
Rich; Uintah	40,700	6,800
Carbon	2,600	200
Bald Hills; Panguitch	43,900	8,900

2015 BLM GRSG Approved RMP Amendment			Changes between 2015 and 2019 GRSG Management			2019 BLM GRSG Approved RMP Amendment		
Sheeprocks	33,700	10,000	Parker Mountain	32,800	2,200	Parker Mountain	32,800	2,200
Statewide	*180,900*	*48,000*	Sheeprocks	33,700	10,000	Sheeprocks	33,700	10,000
			Statewide	*180,900*	*48,000*	*Statewide*	*180,900*	*48,000*
[1] These acreage figures, based on Vegetation Dynamics Development Tool modeling, represent an objective for treatment on BLM-administered lands over a 10-year (decadal) time frame to support achievement or progress toward GRSG habitat objectives (see Final EIS Appendix V, Great Basin Vegetation Modeling using Vegetation Dynamics Development Tool). This accounts for variations in yearly funding availability and does not reflect a maximum or minimum acreage for any one treatment type or total treatment acreage, should funding and site specific conditions allow for more or less treatment acreage than described in order to meet habitat objectives.			[1] These acreage figures, based on Vegetation Dynamics Development Tool modeling, represent an objective for treatment on BLM-administered lands over a 10-year (decadal) time frame to support achievement or progress toward GRSG habitat objectives (see Final EIS Appendix V, Great Basin Vegetation Modeling using Vegetation Dynamics Development Tool). This accounts for variations in yearly funding availability and does not reflect a maximum or minimum acreage for any one treatment type or total treatment acreage, should funding and site specific conditions allow for more or less treatment acreage than described in order to meet habitat objectives.			[1] These acreage figures, based on Vegetation Dynamics Development Tool modeling, represent an objective for treatment on BLM-administered lands over a 10-year (decadal) time frame to support achievement or progress toward GRSG habitat objectives (see Final EIS Appendix V, Great Basin Vegetation Modeling using Vegetation Dynamics Development Tool). This accounts for variations in yearly funding availability and does not reflect a maximum or minimum acreage for any one treatment type or total treatment acreage, should funding and site specific conditions allow for more or less treatment acreage than described in order to meet habitat objectives.		
Outside PHMA (in adjacent opportunity areas) improve and restore historical GRSG habitat to support GRSG populations and to maintain or enhance connectivity. Statewide, complete a decadal average of 170,200 acres of mechanical treatments and 33,000 acres of annual grass treatments. Prioritization is for completion of treatments within PHMA before treating areas outside.			Outside PHMA (in adjacent opportunity areas) improve and restore historical GRSG habitat to support GRSG populations and to maintain or enhance connectivity. Statewide, complete a decadal average of 170,200 acres of mechanical treatments and 33,000 acres of annual grass treatments. Prioritization is for completion of treatments within PHMA before treating areas outside.			Outside PHMA (in adjacent opportunity areas) improve and restore historical GRSG habitat to support GRSG populations and to maintain or enhance connectivity. Statewide, complete a decadal average of 170,200 acres of mechanical treatments and 33,000 acres of annual grass treatments. Prioritization is for completion of treatments within PHMA before treating areas outside.		
Objective SSS-5: Participate in local GRSG conservation efforts (e.g., the appropriate State of Utah agency, Natural Resources Conservation Service (NRCS), and local working groups) to implement landscape-scale habitat conservation, to implement consistent management to benefit GRSG, and to gather and use local research and monitoring to promote the conservation of GRSG.			No changes made.			**Objective SSS-5:** Participate in local GRSG conservation efforts (e.g., the appropriate State of Utah agency, Natural Resources Conservation Service (NRCS), and local working groups) to implement landscape-scale habitat conservation, to implement consistent management to benefit GRSG, and to gather and use local research and monitoring to promote the conservation of GRSG.		
Management Actions (MA):			**Management Actions (MA):**			**Management Actions (MA):**		
MA-SSS-1: Identify PHMA and GHMA as identified in **Table 8** below (Figure 2-1, Habitat Management Areas [Appendix A, Approved RMP Amendment Maps]):			**MA-SSS-1**: Identify PHMA ~~and GHMA~~ as follows in **Table 9** below (Figure 2-1, Habitat Management Areas [Appendix A, Approved RMP Amendment Maps]):			Identify PHMA as follows in **Table 10** below (Figure 2-1, Habitat Management Areas [Appendix A, 2015 ROD/ Approved RMPA Maps]):		

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
The BLM will apply these the goals, objectives, and management actions where the agency has discretion to implement them; the actions do not apply in areas where the BLM does not administer the surface or mineral estate. Minor adjustments to PHMA/GHMA external boundaries can be made if BLM biologists, in coordination with the appropriate State of Utah agency, determine site-specific conditions warrant such changes to more accurately depict existing or potential GRSG habitat. The appropriate planning process (i.e., plan maintenance or plan amendment) will be used, as determined on a case-by-case basis considering site-specific issues. See additional information and protocol on adjusting occupied habitat and PHMA/GHMA boundaries in Appendix K, Greater Sage-Grouse Habitat Baseline and Habitat Update Protocol. The PHMA and GHMA objectives and management actions would apply to existing sagebrush areas and areas with ecological sagebrush potential within the respective PHMA and GHMA polygons. In the mapped PHMA and GHMA there may be areas that lack the principle habitat components necessary for GRSG, including but not limited to rock outcrops, alkaline flats, and pinyon-juniper ecological sites. These are areas that do not have existing sagebrush or ecological potential to contain sagebrush. These areas of non-habitat may be identified during site-specific project review by agency biologists, in discussion with the appropriate State of Utah agency. Because of the importance of PHMA to conserve, enhance and restore GRSG and its habitat, objectives and management actions will apply to all	The BLM will apply these the goals, objectives, and management actions where the agency has discretion to implement them; the actions do not apply in areas where the BLM does not administer the surface or mineral estate. The PHMA boundaries are not intended to represent a survey-grade boundary and are not expected to be used exclusively at a project-level. In accordance with the adaptive management framework and existing law, regulation and policy, inventories will continue to be conducted to provide information on GRSG habitat and distribution (FLPMA, 43 USC 1701 Sec. 201 (a), BLM Manual 6840 .04 D 3; BLM-M-6840 .04 E 2). Prior to considering proposed actions within PHMA, a field investigation should be conducted by a qualified biologist in collaboration with federal and state biologists. To this end, additional site-specific information associated with local surveys could result in a more precise delineation of habitat management areas. If in the review of a proposed action, there are discrepancies between the PHMA maps and the on-the-ground conditions, the on-the-ground information should be used to determine where the management would be applied. Minor adjustments to PHMA~~/GHMA~~ external boundaries (increases or decreases) can be made if BLM biologists, in coordination with the appropriate State of Utah agency, determine site-specific conditions warrant such changes to more accurately depict existing or potential GRSG habitat. The appropriate planning process (i.e., plan maintenance or plan amendment) will be used, as determined on a case-by-case basis considering site-specific issues. See additional information and	The BLM will apply these the goals, objectives, and management actions where the agency has discretion to implement them; the actions do not apply in areas where the BLM does not administer the surface or mineral estate. The PHMA boundaries are not intended to represent a survey-grade boundary and are not expected to be used exclusively at a project-level. In accordance with the adaptive management framework and existing law, regulation and policy, inventories will continue to be conducted to provide information on GRSG habitat and distribution (FLPMA, 43 USC 1701 Sec. 201 (a), BLM Manual 6840 .04 D 3; BLM-M-6840 .04 E 2). Prior to considering proposed actions within PHMA, a field investigation should be conducted by a qualified biologist in collaboration with federal and state biologists. To this end, additional site-specific information associated with local surveys could result in a more precise delineation of habitat management areas. If in the review of a proposed action, there are discrepancies between the PHMA maps and the on-the-ground conditions, the on-the-ground information should be used to determine where the management would be applied. Minor adjustments to PHMA external boundaries (increases or decreases) can be made if BLM biologists, in coordination with the appropriate State of Utah agency, determine site-specific conditions warrant such changes to more accurately depict existing or potential GRSG habitat. The appropriate planning process (i.e., plan maintenance or plan amendment) will be used, as determined on a case-by-case basis considering site-specific issues. See additional information and

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
the areas within the respective PHMA polygons. The GHMA objectives and management actions will apply to the areas of identified non-habitat within the GHMA polygons unless **all** the following conditions are met: • the non-habitat does not provide important connectivity between areas with existing or potential habitat; • all direct and indirect impacts that impair the function of adjacent seasonal habitats or the life-history or behavioral needs of the GRSG population are eliminated through project design (e.g., minimize sound, preclude tall structures, require perch deterrents), as demonstrated in the project's NEPA document. Exceptions in non-habitat may be approved by the Authorized Officer, but only with the concurrence of one level of delegated authority above the Authorized Officer. Any exception granted based on the above criteria would only apply to the specific project-level authorization. Proposed projects in the same area would need to undergo individual analysis to confirm the criteria are met prior to subsequent authorizations. Excepting a site-specific project from compliance with GRSG management in an area of non-habitat would not change the boundaries of PHMA or GHMA.	protocol on adjusting seasonal ~~occupied~~ habitat and PHMA~~/GHMA~~ boundaries in Appendix K, Greater Sage-Grouse Habitat Baseline and Habitat Update Protocol. The PHMA ~~and GHMA~~ objectives and management actions ~~would~~ apply to ecological sites that currently provide GRSG habitat ~~existing sagebrush areas and areas with ecological sagebrush potential~~ within the respective PHMA ~~and GHMA~~ polygons, as well as areas with ecological potential for GRSG habitat that have not cross an ecological threshold to a different stable non-GRSG habitat vegetation community. ~~In the mapped~~ Mapped PHMA ~~and GHMA there~~ may also include ~~be~~ areas that lack the principle habitat components necessary for GRSG, including but not limited to rock outcrops, alkaline flats, ~~and~~ pinyon-juniper ecological sites, and areas that have crossed an ecological threshold to a different stable non-GRSG habitat vegetation community, such as cheatgrass monocultures or pinyon/juniper woodlands (phase 3, absent sagebrush understory) (Chambers et al. 2014; Bestelmeyer et al. 2010; Bestelmeyer, et al. 2011). These are areas that do not contain ~~have existing~~ sagebrush or other vegetation necessary for the various GRSG seasonal habitats ~~ecological potential to contain sagebrush~~. These areas of non-habitat may be identified during site-specific project review by agency biologists, in discussion with the appropriate State of Utah agency. ~~Because of the importance of PHMA to conserve, enhance and restore GRSG and its habitat, objectives and management actions will apply to all the areas within the respective PHMA polygons.~~	protocol on adjusting seasonal habitat and PHMA boundaries in Appendix K, Greater Sage-Grouse Habitat Baseline and Habitat Update Protocol. The PHMA objectives and management actions apply to ecological sites that currently provide GRSG habitat within the respective PHMA polygons, as well as areas with ecological potential for GRSG habitat that have not cross an ecological threshold to a different stable non-GRSG habitat vegetation community. Mapped PHMA may also include areas that lack the principle habitat components necessary for GRSG, including but not limited to rock outcrops, alkaline flats, pinyon-juniper ecological sites, and areas that have crossed an ecological threshold to a different stable non-GRSG habitat vegetation community, such as cheatgrass monocultures or pinyon/juniper woodlands (phase 3, absent sagebrush understory) (Chambers et al. 2014; Bestelmeyer et al. 2010; Bestelmeyer, et al. 2011). These are areas that do not contain sagebrush or other vegetation necessary for the various GRSG seasonal habitats. These areas of non-habitat may be identified during site-specific project review by agency biologists, in discussion with the appropriate State of Utah agency. The PHMA objectives and management actions will apply to the areas identified as habitat, as well as non-habitat within the PHMA polygons unless **both** of the following conditions are met: • the non-habitat does not provide important connectivity between seasonal habitats; and • direct and indirect impacts on adjacent seasonal habitats (disturbance to or disruption of) that would impair their biological function

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	The PHMA ~~GHMA~~ objectives and management actions will apply to the areas ~~of~~ identified as habitat, as well as non-habitat within the PHMA ~~GHMA~~ polygons unless **both ~~all~~** of the following conditions are met: • the non-habitat does not provide important connectivity between ~~areas with existing or potential~~ seasonal habitats; and • ~~all~~ direct and indirect impacts on ~~that impair the function of~~ adjacent seasonal habitats (disturbance to or disruption of) that would impair their biological function of providing ~~or~~ the life-history or behavioral needs of the GRSG population are eliminated through project design (e.g., minimize sound, preclude tall structures, require perch deterrents), as demonstrated in the project's NEPA document. ~~Exceptions in non-habitat may be approved by the Authorized Officer, but only with the concurrence of one level of delegated authority above the Authorized Officer.~~ Any exception granted based on the above criteria would only apply to the specific project-level authorization. Proposed projects in the same area would need to undergo individual analysis to confirm the criteria are met prior to subsequent authorizations. Excepting a site-specific project from compliance with GRSG management in an area of non-habitat would not change the boundaries of PHMA ~~or GHMA~~.	of providing the life-history or behavioral needs of the GRSG population are eliminated through project design (e.g., minimize sound, preclude tall structures, require perch deterrents), as demonstrated in the project's NEPA document. Any exception granted based on the above criteria would only apply to the specific project-level authorization. Proposed projects in the same area would need to undergo individual analysis to confirm the criteria are met prior to subsequent authorizations. Excepting a site-specific project from compliance with GRSG management in an area of non-habitat would not change the boundaries of PHMA.

Table 8. PHMA and GHMA in the 2015 BLM GRSG Approved RMPA

Population Area	Acres					
	PHMA			GHMA		
	Total Surface[1]	BLM Surface[2]	Split Estate[3]	Total Surface[1]	BLM Surface[2]	Split Estate[3]
Uintah	566,800	263,200	140,800	991,500	294,200	81,700
Carbon[4]	260,100	43,500	124,200	198,700	82,800	19,200
Emery	85,500	100	84,000	11,400	0	9,700
Parker Mtn.	741,300	214,200	378,300	12,900	0	7,400
Panguitch	343,900	163,200	91,000	0	0	0
Bald Hills	326,400	259,400	5,200	21,200	8,300	1,200
Hamlin Valley	143,700	101,500	6,600	0	0	0
Sheeprocks	534,600	381,100	111,200	296,500	52,800	15,300
Ibapah	88,800	48,000	700	10,800	10,100	0
Box Elder	1,227,800	439,200	112,000	0	0	0
Rich	1,051,000	167,000	178,400	197,900	300	20,600
Lucerne	0	0	0	37,500	0	11,500
Strawberry	161,500	0	40,900	20,600	0	500
Statewide	*5,531,400*	*2,080,400*	*1,273,300*	*1,799,000*	*448,500*	*167,100*
% PHMA/ GHMA	*75%*	*80%*	*85%*	*25%*	*20%*	*15%*

[1] Acreage associated with total PHMA polygon, regardless of land ownership.
[2] Acreage within PHMA where the BLM has managerial authority on the surface estate.
[3] Acreage where the surface and mineral estates are owned or administered by separate entities. These acres show where the surface estate is not BLM (e.g., private, state, tribal, and Forest Service), but that have a federal mineral estate administered by the BLM. Most minerals decisions apply to the combination of the BLM surface and mineral estates.
[4] The 41,200 acres of National Forest System lands in the Anthro Mountain area would be managed as neither PHMA nor GHMA. These areas would be identified as "Anthro Mountain." In the BLM's RMPPA, these areas are considered split-estate, where the BLM administers the mineral estate.

Table 9. Changes in PHMA and GHMA Between the 2015 and 2019 GRSG Approved RMPAs

Population Area	Acres					
	PHMA			~~GHMA~~		
	Total Surface[1]	BLM Surface[2]	Split Estate[3]	~~Total Surface[1]~~	~~BLM Surface[2]~~	~~Split Estate[3]~~
Uintah	566,800	263,200	140,800	~~991,500~~	~~294,200~~	~~81,700~~
Carbon [4]	260,100	43,500	124,200	~~198,700~~	~~82,800~~	~~19,200~~
Emery	85,500	100	84,000	~~11,400~~	~~0~~	~~9,700~~
Parker Mtn.	741,300	214,200	378,300	~~12,900~~	~~0~~	~~7,400~~
Panguitch	343,900	163,200	91,000	~~0~~	~~0~~	~~0~~
Bald Hills	326,400	259,400	5,200	~~21,200~~	~~8,300~~	~~1,200~~
Hamlin Valley	143,700	101,500	6,600	~~0~~	~~0~~	~~0~~
Sheeprocks	534,600	381,100	111,200	~~296,500~~	~~52,800~~	~~15,300~~
Ibapah	88,800	48,000	700	~~10,800~~	~~10,100~~	~~0~~
Box Elder	1,227,800	439,200	~~112,000~~ 195,800	~~0~~	~~0~~	~~0~~
Rich	1,051,000	167,000	~~178,400~~ 153,700	~~197,900~~	~~300~~	~~20,600~~
Lucerne	0	0	0	~~37,500~~	~~0~~	~~11,500~~
Strawberry	161,500	0	40,900	~~20,600~~	~~0~~	~~500~~
~~WY-Uinta~~	~~1,100~~	~~0~~	~~1,100~~	~~20,900~~	~~0~~	~~20,900~~
~~WY-Blacks Fork~~	~~23,700~~	~~0~~	~~23,700~~	~~31,100~~	~~0~~	~~31,100~~
Statewide	~~*5,531,400*~~ *5,495,800*	*2,080,400*	~~*1,297,400*~~ *1,332,400*	~~*1,851,000*~~	~~*502,500*~~	~~*225,000*~~
~~*% PHMA/ GHMA*~~	~~*75%*~~	~~*80%*~~	~~*85%*~~	~~*25%*~~	~~*20%*~~	~~*15%*~~

[1] Acreage associated with total PHMA polygon, regardless of land ownership.
[2] Acreage within PHMA where the BLM has managerial authority on the surface estate.
[3] Acreage where the surface and mineral estates are owned or administered by separate entities. These acres show where the surface estate is not BLM (e.g., private, state, tribal, and Forest Service), but that have a federal mineral estate administered by the BLM. Most minerals decisions apply to the combination of the BLM surface and mineral estates.
[4] The 41,200 acres of National Forest System lands in the Anthro Mountain area would not be managed as ~~neither~~ PHMA ~~nor GHMA~~. These areas would be identified as "Anthro Mountain." In the BLM's RMPPA, these areas are considered split-estate, where the BLM administers the mineral estate.
[5] PHMA were mapped to exclude all incorporated towns/cities.

Table 10. PHMA in the 2019 BLM GRSG Approved RMPA

Population Area	Acres		
	PHMA		
	Total Surface[1]	BLM Surface[2]	Split Estate[3]
Uintah	566,800	263,200	140,800
Carbon [4]	260,100	43,500	124,200
Emery	85,500	100	84,000
Parker Mtn.	741,300	214,200	378,300
Panguitch	343,900	163,200	91,000
Bald Hills	326,400	259,400	5,200
Hamlin Valley	143,700	101,500	6,600
Sheeprocks	534,600	381,100	111,200
Ibapah	88,800	48,000	700
Box Elder	1,227,800	439,200	195,800
Rich	1,015,400	167,000	153,700
Lucerne	0	0	0
Strawberry	161,500	0	40,900
Statewide[5]	*5,495,800*	*2,080,400*	*1,332,400*

[1] Acreage associated with total PHMA polygon, regardless of land ownership.
[2] Acreage within PHMA where the BLM has managerial authority on the surface estate.
[3] Acreage where the surface and mineral estates are owned or administered by separate entities. These acres show where the surface estate is not BLM (e.g., private, state, tribal, and Forest Service), but that have a federal mineral estate administered by the BLM. Most minerals decisions apply to the combination of the BLM surface and mineral estates.
[4] The 41,200 acres of National Forest System lands in the Anthro Mountain area would not be managed PHMA. These areas would be identified as "Anthro Mountain." In the BLM's RMPPA, these areas are considered split-estate, where the BLM administers the mineral estate.
[5] PHMA were mapped to exclude all incorporated towns/cities.

Table 1 (continued)

Changes in Management Decisions from the 2015 Approved RMPA to the 2019 Approved RMPA

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
MA-SSS-2: Designate SFA as shown on Figure 2-1 (181,100 acres of BLM surface estate; 52,200 acres split-estate federal minerals). SFA will be managed as PHMA, with the following additional management: • Recommended for withdrawal from the Mining Law of 1872 (as amended), 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).	~~**MA-SSS-2**: Designate SFA as shown on Figure 2-1 (181,100 acres of BLM surface estate; 52,200 acres split-estate federal minerals). SFA will be managed as PHMA, with the following additional management:~~ • ~~Recommended for withdrawal from the Mining Law of 1872 (as amended), 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).~~	No similar action.
MA-SSS-3: In PHMA, apply the following management to discretionary disturbances or activities that are not otherwise excluded or closed to minimize and mitigate effects on GRSG and its habitat from the project/activity: A- Net Conservation Gain: In all GRSG habitat, 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. This will be achieved by avoiding,	**MA-SSS-3:** In PHMA, apply the following management to discretionary disturbances or activities that are not otherwise excluded or closed to minimize and mitigate effects on GRSG and its habitat from the project/activity: A- ~~Net Conservation Gain~~ Mitigation Strategy: In ~~all GRSG habitat, in~~ PHMA, when undertaking BLM management actions, and, consistent with valid existing rights and applicable law, ~~in~~ when authorizing third-party actions that result in habitat loss and degradation, the BLM will achieve the planning-level GRSG management goals and objectives through implementation of mitigation and management actions. Under this Proposed Plan Amendment, management would be consistent	**MA-SSS-3:** In PHMA, apply the following management to discretionary disturbances or activities that are not otherwise excluded or closed to minimize and mitigate effects on GRSG and its habitat from the project/activity: A- Mitigation Strategy: In PHMA, when undertaking BLM management actions, and, consistent with valid existing rights and applicable law, when authorizing third-party actions that result in habitat loss and degradation, the BLM will achieve the planning-level GRSG management goals and objectives through implementation of mitigation and management actions. Under this Proposed Plan Amendment, management would be consistent with the GRSG

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
minimizing, and compensating for impacts by applying beneficial mitigation actions. Exceptions to net conservation gain for GRSG shall be made for vegetation treatments to benefit Utah prairie dog. Mitigation will be conducted according to the mitigation framework contained in Appendix F, Mitigation Strategy: Utah Greater Sage-Grouse RMPA. Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table D.2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA. B- Disturbance Cap In PHMA, manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3 percent of 1) PHMA associated with a GRSG population area and 2) within a proposed project analysis area. See Appendix E, Greater Sage-Grouse 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. If the 3 percent anthropogenic disturbance cap is exceeded on all lands (regardless of land ownership) within GRSG PHMA in any given population area (BSU), then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.) will be permitted by the BLM within GRSG PHMA in any given population area (BSU) until the disturbance has been reduced to less than the cap.	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 ~~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. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions~~. Exceptions to this mitigation strategy ~~net conservation gain~~ for GRSG shall be made for vegetation treatments to benefit Utah prairie dog. 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 recommendation or requirement. Therefore, consistent with valid existing rights and applicable law, when considering third-party actions that result in habitat loss and degradation, the BLM will consider compensatory mitigation actions only as a component of compliance with a State mitigation plan, program, or authority; when required by a federal law other than FLPMA; or when offered voluntarily by a project proponent. Accordingly, before authorizing third-party actions that result in habitat loss and degradation in PHMA or State of Utah SGMAs, the BLM will complete the following steps: 1) Notify the appropriate State of Utah agency to determine if the State of Utah requires or	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. Exceptions to this mitigation strategy for GRSG shall be made for vegetation treatments to benefit Utah prairie dog. 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 recommendation or requirement. Therefore, consistent with valid existing rights and applicable law, when considering third-party actions that result in habitat loss and degradation, the BLM will consider compensatory mitigation actions only as a component of compliance with a State mitigation plan, program, or authority; when required by a federal law other than FLPMA; or when offered voluntarily by a project proponent. Accordingly, before authorizing third-party actions that result in habitat loss and degradation in PHMA or State of Utah SGMAs, the BLM will complete the following steps: 1) Notify the appropriate State of Utah agency to determine if the State of Utah requires or recommends any additional mitigation – including compensatory mitigation – under State regulations, policies, or programs related to the conservation of GRSG; 2) Recommend to the project proponent that it coordinate with the appropriate State of Utah

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
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 Mining Law of 1872 [as amended], valid existing rights, etc.). Within designated utility corridors, the 3 percent disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. An area with disturbance is not excluded from the 3 percent until it has been restored to provide GRSG habitat. The objective of successful restoration is to provide for the needs of GRSG, as evidenced by one of the following: • Vegetative cover is consistent with the GRSG habitat objectives and the ecological site description (Objective SSS-3), or • Monitoring indicates the area is regularly used by GRSG to sustain one or more seasonal habitat requirements (nesting, brood-rearing, winter). Final restoration success and approval for abandonment for disturbances will be subject to an interdisciplinary review of available monitoring data and final monitoring reports.	recommends any additional mitigation – including compensatory mitigation – under State regulations, policies, or programs related to the conservation of GRSG; 2) Recommend to the project proponent that it coordinate with the appropriate State of Utah agency to ensure it complies with all applicable State requirements relating to its proposal; 3) Consider the State's recommendations – if the State of Utah 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, or if a proponent voluntarily offers mitigation, the BLM will incorporate that mitigation into the BLM's NEPA and decision-making process; 4) The BLM will ensure mitigation outcomes are consistent with the State of Utah's mitigation strategy and principles outlined in the State's Conservation Plan for Greater Sage-Grouse, including, but not limited to: a) Creating, restoring and/or protecting functional habitat or habitat corridors to offset the impacts of unavoidable disturbance to GRSG habitat, b) In most cases, compensatory mitigation projects should be completed before the project triggering mitigation occurs, c) Compensatory mitigation projects should account for the risk that the mitigation may fail or not persist for the full duration of the project it is intended to offset, d) Compensatory mitigation projects should provide habitat that is in place for at least the duration of the project it is intended to offset.	agency to ensure it complies with all applicable State requirements relating to its proposal; 3) Consider the State's recommendations – if the State of Utah 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, or if a proponent voluntarily offers mitigation, the BLM will incorporate that mitigation into the BLM's NEPA and decision-making process; 4) The BLM will ensure mitigation outcomes are consistent with the State of Utah's mitigation strategy and principles outlined in the State's Conservation Plan for Greater Sage-Grouse, including, but not limited to: a) Creating, restoring and/or protecting functional habitat or habitat corridors to offset the impacts of unavoidable disturbance to GRSG habitat, b) In most cases, compensatory mitigation projects should be completed before the project triggering mitigation occurs, c) Compensatory mitigation projects should account for the risk that the mitigation may fail or not persist for the full duration of the project it is intended to offset, d) Compensatory mitigation projects should provide habitat that is in place for at least the duration of the project it is intended to offset. Project-specific analysis will be necessary to determine how a compensatory mitigation proposal addresses impacts from a proposed action. The BLM will cooperate with the State to determine appropriate project design and alignment with State policies and requirements, including those regarding compensatory mitigation.

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C- Density of Energy/Mining Facilities 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 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 collocated into an existing disturbed area (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.). Energy and mining facilities to which this action applies are: • Oil and gas wells and development facilities, • Coal mines, • Wind towers, • Solar fields, • Geothermal wells/developments, and • Active locatable, leasable, and saleable developments. D- Predation In PHMA, eliminate or minimize external food sources for corvids, particularly dumps, or waste transfer facilities. Apply best management practices (BMP) to development activities to reduce opportunities for GRSG predators (e.g., limiting food sources, nest/perches deterrents, and road kill). Apply habitat management practices (e.g. grazing management and vegetation treatments) that decrease the effectiveness of predators.	Project-specific analysis will be necessary to determine how a compensatory mitigation proposal addresses impacts from a proposed action. The BLM will cooperate with the State to determine appropriate project design and alignment with State policies and requirements, including those regarding compensatory mitigation. 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. In cases where waivers, exceptions, or modification may be granted for projects with a residual impact, voluntary compensatory mitigation consistent with the State's management goals can be one mechanism by which a proponent achieves the RMPA goals, objectives, and waiver, exception, or modification criteria. When a proponent volunteers compensatory mitigation as their chosen approach to address residual impacts, the BLM can incorporate those actions into the rationale used to grant a waiver, exception, or modification. The 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. ~~Mitigation will be conducted according to the mitigation framework contained in Appendix F, Mitigation Strategy: Utah Greater Sage-Grouse RMPA.~~	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. In cases where waivers, exceptions, or modification may be granted for projects with a residual impact, voluntary compensatory mitigation consistent with the State's management goals can be one mechanism by which a proponent achieves the RMPA goals, objectives, and waiver, exception, or modification criteria. When a proponent volunteers compensatory mitigation as their chosen approach to address residual impacts, the BLM can incorporate those actions into the rationale used to grant a waiver, exception, or modification. The 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. In short, 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 would be considered only when voluntarily offered by a proponent, required by a law other than FLPMA, or to meet a State recommendation or requirement. The BLM commits to cooperating with the State to analyze applicant-proposed, state-recommended, or state-imposed compensatory mitigation to offset residual impacts. The BLM remains committed to achieving the planning-level

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Collaborate with applicable government entities to implement programs to control predator populations of GRSG (e.g., ravens, red fox, badgers, and raccoons). E- Noise Restrictions: In PHMA, limit noise from discrete anthropogenic disturbances, whether during construction, operation, or maintenance, to not exceed 10 decibels above ambient sound levels (as available at the signing of the GRSG RMPA ROD or as first measured thereafter) at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during breeding season (e.g., while males are strutting). Support the establishment of ambient baseline noise levels for PHMA habitat area leks. Limit project related noise in other PHMA habitats and seasons where it will be expected to reduce functionality of habitats that support associated GRSG populations. As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate measures will be implemented where necessary to minimize potential for noise impacts on PHMA GRSG population behavioral cycles. F- Tall Structure Restrictions: In PHMA, limit the placement of permanent tall structures within GRSG breeding and nesting habitats. For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g.,	~~Consider the likelihood of development of not yet constructed surface disturbing activities – as defined in Table D.2 of the Monitoring Framework (Appendix D) under valid existing rights prior to authorizing new projects in PHMA.~~ In short, 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 would be considered only when voluntarily offered by a proponent, required by a law other than FLPMA, or to meet a State recommendation or requirement. The BLM commits to cooperating with the State 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 ARMPA by ensuring GRSG habitat impacts are addressed through implementing mitigating actions consistent with the governing RMP. B- Disturbance Cap In PHMA, manage discrete anthropogenic disturbances, ~~whether temporary or permanent,~~ so they cover less than 3 percent of 1) PHMA associated with a GRSG population area and 2) within a proposed project analysis area. See Appendix E, Greater Sage-Grouse 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.	management goals and objectives identified in this ROD and the 2015 ARMPA by ensuring GRSG habitat impacts are addressed through implementing mitigating actions consistent with the governing RMP. B- Disturbance Cap In PHMA, manage discrete anthropogenic disturbances so they cover less than 3 percent of 1) PHMA associated with a GRSG population area and 2) within a proposed project analysis area. See Appendix E, Greater Sage-Grouse 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. If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within GRSG PHMA in any given population area (BSU) or within a proposed project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.) will be permitted by the BLM within GRSG PHMA in any given population area (BSU) or the proposed project analysis area until the disturbance has been reduced to less than the cap. However, the 3 percent cap may be exceeded at either scale if a technical team determines that site-specific Greater Sage-Grouse habitat and population information, combined with project design elements indicates the project will improve the condition of Greater Sage-Grouse habitat within the proposed project analysis area or within the PHMA in the population area where the project is located.

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raptors and ravens) that are naturally absent, or that decreases the use of an area by GRSG. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography. G- Seasonal Restrictions: In PHMA, in coordination with the appropriate State of Utah agency, apply seasonal restrictions during the period specified below to manage discretionary discrete anthropogenic disturbances and uses on public lands to prevent disturbance to GRSG populations and habitat during seasonal life cycle periods as follows: • In breeding (leks), nesting and early brood-rearing habitat from Feb 15 – Jun 15 • In brood rearing habitat from Apr 15 – Aug 15 • In winter habitat from Nov 15 – Mar 15 Specific time and distance determinations will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring and long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency. H- Buffers: 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 US Geological Survey Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239; Manier	If the 3 percent ~~anthropogenic~~ disturbance cap is exceeded on all lands (regardless of land ownership) within GRSG PHMA in any given population area (BSU) or within a proposed project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.) will be permitted by the BLM within GRSG PHMA in any given population area (BSU) or the proposed project analysis area until the disturbance has been reduced to less than the cap. However, the 3 percent cap may be exceeded at either scale if a technical team determines that site-specific Greater Sage-Grouse habitat and population information, combined with project design elements indicates the project will improve the condition of Greater Sage-Grouse habitat within the proposed project analysis area or within the PHMA in the population area where the project is located. Factors considered by the team will include Greater Sage-Grouse abundance and trends, movement patterns, habitat amount and quality, extent and alignment of project disturbance, location and density of existing disturbance, project design options and other biological factors. Such exceptions to the 3 percent disturbance cap may only be approved by the BLM Authorized Officer with the concurrence of the State Director. The finding and recommendation shall be made by the technical team, which should consist of, at least, a BLM field biologist, other local Greater Sage-Grouse experts, and biologists and other	Factors considered by the team will include Greater Sage-Grouse abundance and trends, movement patterns, habitat amount and quality, extent and alignment of project disturbance, location and density of existing disturbance, project design options and other biological factors. Such exceptions to the 3 percent disturbance cap may only be approved by the BLM Authorized Officer with the concurrence of the State Director. The finding and recommendation shall be made by the technical team, which should consist of, at least, a BLM field biologist, other local Greater Sage-Grouse experts, and biologists and other representatives from the appropriate State of Utah agency. Within designated utility corridors, the 3 percent disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that doing so will improve the condition of Greater Sage-Grouse habitat in comparison to siting a project outside the designated corridor. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. An area with disturbance within GRSG habitat is not excluded from the 3 percent cap until it provides GRSG habitat. The objective of successful restoration of disturbed GRSG seasonal habitats is to provide for the needs of GRSG, which could be evidenced by one of the following:

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et al. 2014) in accordance with Appendix B, Applying Lek-Buffer Distances. I- Required Design Features/Best Management Practices: In PHMA, apply the RDFs from the applicable sections identified in Appendix C, Required Design Features, when authorizing/permitting site-specific activities/projects for wildland fire management actions, travel and transportation, lands and realty, fluid minerals, nonenergy leasable minerals, coal, mineral materials, and locatable minerals (consistent with applicable law). The applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects and/or may require slight variations. All variations in RDFs will require that at least one of the following 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 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, state-implemented conservation measure, or plan-level protection 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.	representatives from the appropriate State of Utah agency. ~~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 Mining Law of 1872 [as amended], valid existing rights, etc.).~~ Within designated utility corridors, the 3 percent disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that ~~a net conservation gain to the species will be achieved~~ doing so will improve the condition of Greater Sage-Grouse habitat in comparison to siting a project outside the designated corridor. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. An area with disturbance within GRSG habitat is not excluded from the 3 percent cap until it ~~has been restored to~~ provides GRSG habitat. The objective of successful restoration of disturbed GRSG seasonal habitats is to provide for the needs of GRSG, which could be ~~as~~ evidenced by one of the following: • Vegetative cover is consistent with the GRSG habitat objectives and the ecological site description (Objective SSS-3), or • Monitoring indicates the area is regularly used by GRSG to sustain one or more seasonal	• Vegetative cover is consistent with the GRSG habitat objectives and the ecological site description (Objective SSS-3), or • Monitoring indicates the area is regularly used by GRSG to sustain one or more seasonal habitat requirements (nesting, brood-rearing, winter). Include a schedule in project authorizations for monitoring the status of restoration efforts (e.g., areas of disturbance that meet the restoration criteria). Areas where disturbance would exceed 3 percent after project construction should include annual assessments to prioritize restoration efforts and determine what areas have been restored. Areas of PHMA that were not Greater Sage-Grouse habitat at project initiation would be excluded from the 3 percent cap calculation upon project completion and reclamation, as outlined in the applicable lease or permit. Final restoration success and approval for abandonment for disturbances will be subject to an interdisciplinary review of available monitoring data and final monitoring reports. Consider the likelihood of development of not-yet-constructed surface-disturbing activities—as defined in Table D.2 of the Monitoring Framework (Appendix D of the 2015 ROD/ Approved RMPA)—under valid existing rights prior to authorizing new projects in PHMA. C- Density of Energy/Mining Facilities Subject to applicable laws, including the Mining Law of 1872, and applicable regulations, and valid existing rights , if the average density of one energy

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	habitat requirements (nesting, brood-rearing, winter). Include a schedule in project authorizations for monitoring the status of restoration efforts (e.g., areas of disturbance that meet the restoration criteria). Areas where disturbance would exceed 3 percent after project construction should include annual assessments to prioritize restoration efforts and determine what areas have been restored. Areas of PHMA that were not Greater Sage-Grouse habitat at project initiation would be excluded from the 3 percent cap calculation upon project completion and reclamation, as outlined in the applicable lease or permit. Final restoration success and approval for abandonment for disturbances will be subject to an interdisciplinary review of available monitoring data and final monitoring reports. Consider the likelihood of development of not-yet-constructed surface-disturbing activities—as defined in Table D.2 of the Monitoring Framework (Appendix D of the 2015 ROD/ Approved RMPA)—under valid existing rights prior to authorizing new projects in PHMA. C- Density of Energy/Mining Facilities Subject to applicable laws, including the Mining Law of 1872, applicable 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	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 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 collocated into an existing disturbed area (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.); however, the density cap may be exceeded if a project is on non-habitat (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA), or if the process identified in MA-SSS-3B determines the project will improve the condition of GRSG habitat at the proposed project analysis area or within the PHMA where the project is located through analysis of site-specific GRSG habitat and population information and project design elements. Energy and mining facilities to which this action applies are: • Oil and gas wells and development facilities, • Coal mines, • Wind towers, • Solar fields, • Geothermal wells/developments, and • Active locatable, leasable, and saleable developments. D- Predation In PHMA, eliminate or minimize external food sources for corvids, particularly dumps, or waste transfer facilities. Apply best management practices (BMP) to development activities to reduce opportunities for GRSG predators (e.g., limiting

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	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 collocated into an existing disturbed area (subject to applicable laws and regulations, such as the Mining Law of 1872 [as amended], valid existing rights, etc.); however, the density cap may be exceeded if a project is on non-habitat (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA), or if the process identified in MA-SSS-3B determines the project will improve the condition of GRSG habitat at the proposed project analysis area or within the PHMA where the project is located through analysis of site-specific GRSG habitat and population information and project design elements. Energy and mining facilities to which this action applies are: • Oil and gas wells and development facilities, • Coal mines, • Wind towers, • Solar fields, • Geothermal wells/developments, and • Active locatable, leasable, and saleable developments. D- Predation In PHMA, eliminate or minimize external food sources for corvids, particularly dumps, or waste transfer facilities. Apply best management practices (BMP) to development activities to reduce opportunities for GRSG predators (e.g., limiting food sources, nest/perches deterrents, and road kill).	food sources, nest/perches deterrents, and road kill). Apply habitat management practices (e.g. grazing management and vegetation treatments) that decrease the effectiveness of predators. When conducting habitat treatments, remove trees that have corvid nests that could impact PHMA nesting and brood-rearing habitat when in compliance with the Migratory Bird Treaty Act (e.g., when the nest is unoccupied and outside of migratory bird nesting season). Efforts by other agencies to minimize impacts from predators on the GRSG should be supported and encouraged where needs have been documented. Collaborate with applicable government entities to implement programs to control predator populations of GRSG (e.g., ravens, red fox, badgers, and raccoons). E- Noise Restrictions: In PHMA, limit noise from discrete anthropogenic disturbances, whether during construction, operation, or maintenance, to not exceed 10 decibels above ambient sound levels (as available at the signing of the GRSG RMPA ROD or as first measured thereafter) at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during breeding season (e.g., while males are strutting). Support the establishment of ambient baseline noise levels for PHMA habitat area leks. Limit project related noise in other PHMA habitats and seasons where it will be expected to reduce functionality of habitats that support associated GRSG populations.

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	Apply habitat management practices (e.g. grazing management and vegetation treatments) that decrease the effectiveness of predators. When conducting habitat treatments, remove trees that have corvid nests that could impact PHMA nesting and brood-rearing habitat when in compliance with the Migratory Bird Treaty Act (e.g., when the nest is unoccupied and outside of migratory bird nesting season). Efforts by other agencies to minimize impacts from predators on the GRSG should be supported and encouraged where needs have been documented. Collaborate with applicable government entities to implement programs to control predator populations of GRSG (e.g., ravens, red fox, badgers, and raccoons). E- Noise Restrictions: No changes made. F- Tall Structure Restrictions: No changes made. G- Seasonal Restrictions: No changes made. H- Buffers: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will assess and address impacts within ~~apply~~ the lek buffer-distances identified in the US Geological Survey Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239; Manier et al.	As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate measures will be implemented where necessary to minimize potential for noise impacts on PHMA GRSG population behavioral cycles. F- Tall Structure Restrictions: In PHMA, limit the placement of permanent tall structures within GRSG breeding and nesting habitats. For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors and ravens) that are naturally absent, or that decreases the use of an area by GRSG. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography. G- Seasonal Restrictions: In PHMA, in coordination with the appropriate State of Utah agency, apply seasonal restrictions during the period specified below to manage discretionary discrete anthropogenic disturbances and uses on public lands to prevent disturbance to GRSG populations and habitat during seasonal life cycle periods as follows: • In breeding (leks), nesting and early brood-rearing habitat from Feb 15 – Jun 15 • In brood rearing habitat from Apr 15 – Aug 15 • In winter habitat from Nov 15 – Mar 15

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	2014) in accordance with Appendix B, Applying Lek-Buffer Distances. <u>I- Required Design Features/Best Management Practices:</u> No changes made.	Specific time and distance determinations will be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring and long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency. <u>H- Buffers:</u> In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will assess and address impacts within the lek buffer-distances identified in the US Geological Survey 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, Applying Lek-Buffer Distances. <u>I- Required Design Features/Best Management Practices:</u> In PHMA, apply the RDFs from the applicable sections identified in Appendix C, Required Design Features, when authorizing/permitting site-specific activities/projects for wildland fire management actions, travel and transportation, lands and realty, fluid minerals, nonenergy leasable minerals, coal, mineral materials, and locatable minerals (consistent with applicable law). The applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects and/or may require slight variations. All variations in RDFs will require

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		that at least one of the following 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 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, state-implemented conservation measure, or plan-level protection 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.
MA-SSS-4: In PHMA and in adjacent opportunity areas, maintain, improve and restore GRSG habitat to support GRSG populations and to maintain or enhance connectivity. Vegetation treatments will be applied to meet GRSG habitat objectives and provide additional GRSG habitat, unless there is a conflict with Utah prairie dog, where the landscape will be managed for both species. PHMA boundaries may be adjusted to include additional restored GRSG habitat and habitat identified during survey or inventory work. Changes to maps and associated management will occur through the appropriate BLM planning processes (e.g., plan maintenance or plan amendment), as described in Appendix K.	No changes made.	**MA-SSS-4**: In PHMA and in adjacent opportunity areas, maintain, improve and restore GRSG habitat to support GRSG populations and to maintain or enhance connectivity. Vegetation treatments will be applied to meet GRSG habitat objectives and provide additional GRSG habitat, unless there is a conflict with Utah prairie dog, where the landscape will be managed for both species. PHMA boundaries may be adjusted to include additional restored GRSG habitat and habitat identified during survey or inventory work. Changes to maps and associated management will occur through the appropriate BLM planning processes (e.g., plan maintenance or plan amendment), as described in Appendix K.
MA-SSS-5: In GHMA, apply the following management to meet the objective of a net conservation gain for discretionary actions that can result in habitat loss and degradation:	~~**MA-SSS-5:** In GHMA, apply the following management to meet the objective of a net conservation gain for discretionary actions that can result in habitat loss and degradation:~~	No similar action.

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A- Existing Management: Implement GRSG management actions included in the existing RMPs and project-specific mitigation measures associated with existing decisions. B- Net Conservation Gain: In all GRSG habitat, 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. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Exceptions to net conservation gain for GRSG may be made for vegetation treatments to benefit Utah prairie dog. Mitigation will be conducted according to the mitigation framework contained in Appendix F. C- Buffers: 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 US Geological Survey 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- Required Design Features/Best Management Practices: In GHMA, apply the fluid mineral RDFs that are associated with GHMA identified in Appendix C	~~A- Existing Management:~~ ~~Implement GRSG management actions included in the existing RMPs and project-specific mitigation measures associated with existing decisions.~~ ~~B- Net Conservation Gain:~~ ~~In all GRSG habitat, 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. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Exceptions to net conservation gain for GRSG may be made for vegetation treatments to benefit Utah prairie dog.~~ ~~Mitigation will be conducted according to the mitigation framework contained in Appendix F.~~ ~~C- Buffers:~~ ~~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 US Geological Survey 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- Required Design Features/Best Management Practices:~~ ~~In GHMA, apply the fluid mineral RDFs that are associated with GHMA identified in Appendix C~~	

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when authorizing/permitting site-specific fluid mineral development activities/projects. The applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects and/or may require slight variations. All variations in RDFs will require that at least one of the following 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 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, state-implemented conservation measure, or plan-level protection 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.	~~when authorizing/permitting site-specific fluid mineral development activities/projects.~~ ~~The applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects and/or may require slight variations. All variations in RDFs will require that at least one of the following 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 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, state-implemented conservation measure, or plan-level protection 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.~~	
MA-SSS-6 Sage-Grouse Management Outside PHMA/GHMA Proposed projects within State of Utah Sage-Grouse Management Areas (SGMA) and USFWS priority areas for conservation (PAC), as well as adjacent to PHMA outside these areas, will consider impacts on GRSG and implement measures to mitigate impacts when preparing site-specific planning and environmental compliance documents.	**MA-SSS-6** Sage-Grouse Management Outside PHMA~~/GHMA~~ Outside PHMA, implement Greater Sage-Grouse management actions included in the RMPs and project-specific mitigation measures associated with decisions that pre-dated the 2015 amendments. Proposed projects within State of Utah Sage-Grouse Management Areas (SGMA) and USFWS priority areas for conservation (PAC), as well as adjacent to PHMA outside these areas, will	**MA-SSS-6** Sage-Grouse Management Outside PHMA Outside PHMA, implement Greater Sage-Grouse management actions included in the RMPs and project-specific mitigation measures associated with decisions that pre-dated the 2015 amendments. Proposed projects within State of Utah Sage-Grouse Management Areas (SGMA) and USFWS priority areas for conservation (PAC), as well as adjacent to PHMA outside these areas, will

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Outside of PHMA, prior to site-specific authorizations, the BLM will evaluate habitat conditions and may require surveys to determine if the project area contains GRSG habitat (FLPMA, 43 United States Code (USC) 1701 Sec. 201 (a); BLM Manual 6840.04 D3; BLM-M-6840.04 E2). Surveys will be required prior to authorizing discrete anthropogenic disturbances within 4 miles of an occupied lek that is located in PHMA, but only in existing sagebrush. If an area is determined to be GRSG habitat (e.g., nesting, brood-rearing, winter, transition), mitigation will be considered as part of the project level NEPA analysis and will be attached as conditions of approval to new discretionary actions, if deemed necessary to protect the habitat (BLM Manual 6840.04 D 5). Measures that may be considered include those identified in Appendix C. Outside of PHMA, but within SGMAs and PACs, avoid removal of sagebrush and minimize development that creates a physical barrier to GRSG movement; these areas may be used by GRSG to connect to other populations or seasonal habitat areas. Exceptions shall be made for vegetation treatments to benefit Utah prairie dog, where the landscape will be managed for both species. Outside of PHMA, but within SGMAs and PACs, consider noise and permanent structure stipulations around leks. Outside PHMA, portions of State of Utah opportunity areas (see Final EIS Map 2.4) within 4 miles of a lek that is located in PHMA will be managed with the following allocations:	consider impacts on GRSG and may implement measures to mitigate impacts on GRSG populations within adjacent PHMA when preparing site-specific planning and environmental compliance documents. ~~Outside of PHMA, prior to site-specific authorizations, the BLM will evaluate habitat conditions and may require surveys to determine if the project area contains GRSG habitat (FLPMA, 43 United States Code (USC) 1701 Sec. 201 (a); BLM Manual 6840.04 D3; BLM-M-6840.04 E2). Surveys will be required prior to authorizing discrete anthropogenic disturbances within 4 miles of an occupied lek that is located in PHMA, but only in existing sagebrush.~~ ~~If an area is determined to be GRSG habitat (e.g., nesting, brood-rearing, winter, transition), mitigation will be considered as part of the project level NEPA analysis and will be attached as conditions of approval to new discretionary actions, if deemed necessary to protect the habitat (BLM Manual 6840.04 D 5). Measures that may be considered include those identified in Appendix C.~~ Outside of PHMA, but within SGMAs and PACs, avoid removal of sagebrush and minimize development that creates a physical barrier to GRSG movement; these areas may be used by GRSG to connect to other populations or seasonal habitat areas. Exceptions shall be made for vegetation treatments to benefit Utah prairie dog, where the landscape will be managed for both species. Outside of PHMA, but within SGMAs and PACs, consider noise and permanent structure stipulations around leks.	consider impacts on GRSG and may implement measures to mitigate impacts on GRSG populations within adjacent PHMA when preparing site-specific planning and environmental compliance documents. Outside of PHMA, but within SGMAs and PACs, avoid removal of sagebrush and minimize development that creates a physical barrier to GRSG movement; these areas may be used by GRSG to connect to other populations or seasonal habitat areas. Exceptions shall be made for vegetation treatments to benefit Utah prairie dog, where the landscape will be managed for both species. Outside of PHMA, but within SGMAs and PACs, consider noise and permanent structure stipulations around leks. Outside PHMA, after analyzing the impacts using the buffer distances identified in Appendix B from a lek that is located in PHMA, portions of State of Utah opportunity areas will be managed with the following allocations: • Fluid minerals will be open for leasing with CSU stipulations (noise and tall structures). • Lands ROWs, permits, and leases will be avoided, applying avoidance criteria for noise and tall structures. Avoid siting wind energy development in opportunity areas within the buffer distances identified in Appendix B from occupied GRSG leks that are in PHMA, if the lek buffer analysis as identified in Appendix B shows that siting wind energy development in opportunities areas will impact lek persistence within PHMA.

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• Fluid minerals will be open for leasing with CSU stipulations (noise and tall structures). • Lands ROWs, permits, and leases will be avoided, applying avoidance criteria for noise and tall structures. Do not site wind energy development in opportunity areas within 5 miles from occupied GRSG leks that are in PHMA. Outside of PHMA, avoid and minimize effects from discrete anthropogenic disturbances in areas that have been treated with the intent of improving or creating new GRSG habitat. Evaluate conditions in the treated area to determine if it is providing habitat for GRSG and if additional measures are necessary to protect the habitat.	Outside PHMA, after analyzing the impacts using the buffer distances identified in Appendix B from a lek that is located in PHMA, portions of State of Utah opportunity areas ~~(see Final EIS Map 2.4) within 4 miles of a lek that is located in PHMA~~ will be managed with the following allocations: • Fluid minerals will be open for leasing with CSU stipulations (noise and tall structures). • Lands ROWs, permits, and leases will be avoided, applying avoidance criteria for noise and tall structures. Avoid siting ~~Do not site~~ wind energy development in opportunity areas within the buffer distances identified in Appendix B ~~5 miles~~ from occupied GRSG leks that are in PHMA, if the lek buffer analysis as identified in Appendix B shows that siting wind energy development in opportunities areas will impact lek persistence within PHMA. Outside of PHMA, avoid and minimize effects from discrete anthropogenic disturbances in areas that have been treated with the intent of improving or creating new GRSG habitat. Evaluate conditions in the treated area to determine if it is providing habitat for GRSG and if additional measures are necessary to protect the habitat. Outside of PHMA, provide that acres of GRSG seasonal habitat (based on best available maps, then confirmed to be regularly used by Greater Sage-Grouse to sustain one or more seasonal habitat requirements through coordination with the appropriate State of Utah agency and through on-the-ground information) that is lost to habitat degradation actions (Appendix C, Table C.2 of the 2015 ROD/Approved RMPA) are replaced by	Outside of PHMA, avoid and minimize effects from discrete anthropogenic disturbances in areas that have been treated with the intent of improving or creating new GRSG habitat. Evaluate conditions in the treated area to determine if it is providing habitat for GRSG and if additional measures are necessary to protect the habitat. Outside of PHMA, provide that acres of GRSG seasonal habitat (based on best available maps, then confirmed to be regularly used by Greater Sage-Grouse to sustain one or more seasonal habitat requirements through coordination with the appropriate State of Utah agency and through on-the-ground information) that is lost to habitat degradation actions (Appendix C, Table C.2 of the 2015 ROD/Approved RMPA) are replaced by creating/improving Greater Sage-Grouse habitat within PHMA.

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	creating/improving Greater Sage-Grouse habitat within PHMA.	
MA-SSS-7 Adaptive Management This plan establishes soft and hard triggers for both GRSG populations and habitat. The specific triggers and additional detail on the management responses are identified in Appendix I, Adaptive Management. 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. If monitoring indicates the soft-trigger is met, the BLM will determine if there is a specific cause or causes that are contributing to the decline. If it is determined that the decline is related to a natural population variation, no specific management actions will be required. However, if BLM management actions are determined to cause or contribute to the decline, the BLM manager will apply measures within their implementation-level discretion to mitigate the decline of populations and/or habitats to the area where the trigger has been met. These measures will apply more conservative or restrictive implementation conservation conditions, terms, or decisions within the agencies' discretion to mitigate the decline of populations and/or habitats. If monitoring indicates the hard trigger is met, a set of specific management actions from the BLM Proposed Plan will immediately be replaced with or adjusted by different management actions in the area where the trigger has been met. Table I.1 of Appendix I identifies the management actions from the BLM Proposed Plan, and the corresponding new management actions that will be immediately	**MA-SSS-7** Adaptive Management This plan establishes soft and hard triggers for both GRSG populations and habitat. The specific triggers and additional detail on the management responses are identified in Appendix I, Adaptive Management. 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~~. If monitoring indicates the soft-trigger is met, the BLM will review available and pertinent data, in coordination with GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFS, USFWS, and/or NRCS, to determine the causal factor(s) for the declines within 6 months of identifying that a trigger has been met ~~if there is a specific cause or causes that are contributing to the decline~~. If it is determined that the decline is related to a natural population variation, no specific management actions will be required; however, if BLM management actions are determined to cause or contribute to the decline, the BLM will work with the appropriate State of Utah agency and public land users to identify and apply management to slow down or stop the population decline. Such measures would be applied by the BLM manager ~~will apply measures~~ within their implementation-level discretion to mitigate the decline of populations and/or habitats to the area where the trigger has been met. These measures will apply more conservative or restrictive implementation conservation conditions, terms, or decisions within the agencies' discretion to mitigate the decline of populations and/or	**MA-SSS-7** Adaptive Management This plan establishes soft and hard triggers for both GRSG populations and habitat. The specific triggers and additional detail on the management responses are identified in Appendix I, Adaptive Management. The hard and soft trigger data will be analyzed annually. If monitoring indicates the soft-trigger is met, the BLM will review available and pertinent data, in coordination with GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFS, USFWS, and/or NRCS, to determine the causal factor(s) for the declines within 6 months of identifying that a trigger has been met. If it is determined that the decline is related to a natural population variation, no specific management actions will be required; however, if BLM management actions are determined to cause or contribute to the decline, the BLM will work with the appropriate State of Utah agency and public land users to identify and apply management to slow down or stop the population decline. Such measures would be applied by the BLM manager within their implementation-level discretion to mitigate the decline of populations and/or habitats to the area where the trigger has been met. These measures will apply more conservative or restrictive implementation conservation conditions, terms, or decisions within the agencies' discretion to mitigate the decline of populations and/or habitats. Such measures could also include other management actions which may require the need to amend the RMP to address the situation and modify management.

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implemented to the specific area in the event a hard trigger is met. In addition to these specific changes, the BLM will review available and pertinent data for the area, in coordination GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFWS, and NRCS, to determine the causal factor(s) and implement a corrective strategy. The final strategy associated with a hard trigger being met will be the changes identified in Table I.1 of Appendix I, and may also include the need to further amend or revise the RMP to address the situation and modify management accordingly, for the area where the trigger was met.	habitats. Such measures could also include other management actions which may require the need to amend the RMP to address the situation and modify management. If monitoring indicates the hard trigger is met, the BLM will review available and pertinent data, in coordination with GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFS, USFWS, and/or NRCS, to determine the causal factor(s) for the declines. The BLM and the team will also identify measures needed to address the causal factor(s) and develop a corrective strategy for the area where the trigger has been met. The corrective strategy would include the applicable changes identified in ~~a set of specific management actions from the BLM Proposed Plan will immediately be replaced with or adjusted by different management actions in the area where the trigger has been met.~~ Table I.1 of Appendix I that address the causal factor, and could also include other management actions, which may be require the need to amend the RMP to address the situation and modify management. If determining the causal factor and development of the corrective strategy is not completed within 6 months of documenting that the trigger has been met, all the plan level responses identified in Table I.1 will be applied until the causal factor analysis is complete. Upon completion of the causal factor analysis any responses that do not address the causal factor(s) would be removed. In developing a corrective strategy, managers may select changes in management that are identified in Table I.1, Specific Management Responses that have already been analyzed for implementation. This table also identifies which decision from the BLM RMPA would be changed. ~~identifies the management~~	If monitoring indicates the hard trigger is met, the BLM will review available and pertinent data, in coordination with GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFS, USFWS, and/or NRCS, to determine the causal factor(s) for the declines. The BLM and the team will also identify measures needed to address the causal factor(s) and develop a corrective strategy for the area where the trigger has been met. The corrective strategy would include the applicable changes identified in Table I.1 of Appendix I that address the causal factor, and could also include other management actions, which may be require the need to amend the RMP to address the situation and modify management. If determining the causal factor and development of the corrective strategy is not completed within 6 months of documenting that the trigger has been met, all the plan level responses identified in Table I.1 will be applied until the causal factor analysis is complete. Upon completion of the causal factor analysis any responses that do not address the causal factor(s) would be removed. In developing a corrective strategy, managers may select changes in management that are identified in Table I.1, Specific Management Responses that have already been analyzed for implementation. This table also identifies which decision from the BLM RMPA would be changed. The management identified in the corrective strategy would be implemented until ten-year population trends reflect natural fluctuations anticipated for the area. The BLM would determine the area reflects natural fluctuations in coordination with GRSG biologists from multiple agencies including Forest Service, UDWR, USFWS,

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	~~actions from the BLM Proposed Plan, and the corresponding new management actions that will be immediately implemented to the specific area in the event a hard trigger is met. In addition to these specific changes, the BLM will review available and pertinent data for the area, in coordination GRSG biologists from multiple agencies including the appropriate State of Utah agency, USFWS, and NRCS, to determine the causal factor(s) and implement a corrective strategy. The final strategy associated with a hard trigger being met will be the changes identified in Table I.1 of Appendix I, and may also include the need to further amend or revise the RMP to address the situation and modify management accordingly, for the area where the trigger was met.~~ The management identified in the corrective strategy would be implemented until ten-year population trends reflect natural fluctuations anticipated for the area. The BLM would determine the area reflects natural fluctuations in coordination with GRSG biologists from multiple agencies including Forest Service, UDWR, USFWS, and/or NRCS. Upon determination, the management would revert to the RMPA. If all the leks in an area that has met a hard trigger are not active for ten years, becoming unoccupied by definition, the PHMA designation and all its associated management would be removed since there is no longer a GRSG population for which management should be prioritized. For any area that has met a soft or hard trigger, the BLM, the appropriate State of Utah agency, and other members of the technical team will annually review monitoring data regarding population and	and/or NRCS. Upon determination, the management would revert to the RMPA. If all the leks in an area that has met a hard trigger are not active for ten years, becoming unoccupied by definition, the PHMA designation and all its associated management would be removed since there is no longer a GRSG population for which management should be prioritized. For any area that has met a soft or hard trigger, the BLM, the appropriate State of Utah agency, and other members of the technical team will annually review monitoring data regarding population and habitat trends to verify that management actions implemented to mitigate declines are being successful. If monitoring indicates continued declines, the causal factor analysis will be reviewed, updated if needed, and applicable additional management would be identified and implemented.

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	habitat trends to verify that management actions implemented to mitigate declines are being successful. If monitoring indicates continued declines, the causal factor analysis will be reviewed, updated if needed, and applicable additional management would be identified and implemented.	
VEGETATION (VEG)	***VEGETATION (VEG)***	***VEGETATION (VEG)***
Objectives:	**Objectives:**	**Objectives:**
Objective VEG-1: In SFA and PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70 percent) with a minimum of 15 percent sagebrush cover or as consistent with specific ecological site conditions; exceptions to this objective shall be made where GRSG habitat and Utah prairie dog occur on the same landscape, which will be managed for both species. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	**Objective VEG-1:** In ~~SFA and~~ PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70 percent) with a minimum of 15 percent sagebrush cover or as consistent with specific ecological site conditions; exceptions to this objective shall be made where GRSG habitat and Utah prairie dog occur on the same landscape, which will be managed for both species. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	**Objective VEG-1:** In PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70 percent) with a minimum of 15 percent sagebrush cover or as consistent with specific ecological site conditions; exceptions to this objective shall be made where GRSG habitat and Utah prairie dog occur on the same landscape, which will be managed for both species. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-VEG-1: In PHMA, where necessary to meet GRSG habitat objectives, treat areas to maintain and expand healthy GRSG habitat (e.g., conifer encroachment areas and annual grasslands). In PHMA, prioritize implementation of restoration/treatment projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (e.g., proximity to existing GRSG populations, ecological site potential, and resistance and resilience), documented in Appendix H, Fire and Invasives Assessment Tool.	**MA-VEG-1**: In PHMA, where necessary to meet GRSG habitat objectives, treat areas to maintain and expand healthy GRSG habitat (e.g., conifer encroachment areas and invasive annual grasslands). In PHMA, prioritize implementation of restoration/treatment projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (e.g., proximity to existing GRSG populations, ecological site potential, and resistance and resilience), documented in Appendix H, Fire and Invasives Assessment Tool.	**MA-VEG-1**: In PHMA, where necessary to meet GRSG habitat objectives, treat areas to maintain and expand healthy GRSG habitat (e.g., conifer encroachment areas and invasive annual grasslands). In PHMA, prioritize implementation of restoration/treatment projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (e.g., proximity to existing GRSG populations, ecological site potential, and resistance and resilience), documented in Appendix H, Fire and Invasives Assessment Tool.

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In PHMA, prioritize restoration in seasonal habitats that are identified as the limiting factor for GRSG distribution and/or abundance. Apply seasonal restrictions to avoid treating areas during seasons of use, as needed, when implementing vegetation treatments (see MA-SSS-3G). In PHMA, avoid sagebrush reduction treatments within GRSG nesting and winter habitat unless the project plan and associated NEPA document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Coordinate with the appropriate State of Utah agency and the USFWS prior to conducting sagebrush treatment projects within nesting and winter habitat. Use collaborative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from entities such as local landowners, local GRSG working groups, and other federal, state, county, and private organizations shall be solicited and considered in development of restoration projects. In PHMA, implement project design features that will contribute to the most favorable conditions for success when planning and implementing restoration/vegetation treatment projects. Examples include, but are not limited to the following:	In PHMA, prioritize restoration in seasonal habitats that are identified as the limiting factor for GRSG distribution and/or abundance. Apply seasonal restrictions to avoid treating areas during seasons of use, as needed, when implementing vegetation treatments (see MA-SSS-3G). In PHMA, avoid sagebrush reduction treatments within GRSG nesting and winter habitat unless the project plan and associated NEPA document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Coordinate with the appropriate State of Utah agency and the USFWS prior to conducting sagebrush treatment projects within nesting and winter habitat. Use collaborative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from entities such as local landowners, local GRSG working groups, and other federal, state, county, and private organizations shall be solicited and considered in development of restoration projects. In PHMA, implement project design features that will contribute to the most favorable conditions for success when planning and implementing restoration/vegetation treatment projects. Examples include, but are not limited to the following:	In PHMA, prioritize restoration in seasonal habitats that are identified as the limiting factor for GRSG distribution and/or abundance. Apply seasonal restrictions to avoid treating areas during seasons of use, as needed, when implementing vegetation treatments (see MA-SSS-3G). In PHMA, avoid sagebrush reduction treatments within GRSG nesting and winter habitat unless the project plan and associated NEPA document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Coordinate with the appropriate State of Utah agency and the USFWS prior to conducting sagebrush treatment projects within nesting and winter habitat. Use collaborative planning efforts to develop and implement habitat restoration projects. Expertise and ideas from entities such as local landowners, local GRSG working groups, and other federal, state, county, and private organizations shall be solicited and considered in development of restoration projects. In PHMA, implement project design features that will contribute to the most favorable conditions for success when planning and implementing restoration/vegetation treatment projects. Examples include, but are not limited to the following:

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• Review of available plant species and their adaptation to the site when developing seed mixes. • The need to reduce non-native annual grass densities and competition through herbicide, targeted grazing, tillage, etc. • Assessment of on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider the use of passive restoration techniques. • Use of site preparation techniques that retain existing desirable vegetation. • Use of "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources. • The need for post-treatment control of non-native annual grass and other invasive species. Upon completion of vegetation treatments, monitor and manage the project area to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance treatments.	• Review of available plant species and their adaptation to the site when developing seed mixes. • The need to reduce non-native annual grass densities and competition through herbicide, targeted grazing, tillage, etc. • Assessment of on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider the use of passive restoration techniques. • Use of site preparation techniques that retain existing desirable vegetation. • Use of "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources. • The need for post-treatment control of non-native annual grass and other invasive species. Upon completion of vegetation treatments, monitor and manage the project area to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance treatments.	• Review of available plant species and their adaptation to the site when developing seed mixes. • The need to reduce non-native annual grass densities and competition through herbicide, targeted grazing, tillage, etc. • Assessment of on-site vegetation to ascertain if enough desirable perennial vegetation exists to consider the use of passive restoration techniques. • Use of site preparation techniques that retain existing desirable vegetation. • Use of "mother plant" techniques or planting of satellite populations of desirable plants to serve as seed sources. • The need for post-treatment control of non-native annual grass and other invasive species. Upon completion of vegetation treatments, monitor and manage the project area to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance treatments.
MA-VEG-2: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. When conducting conifer treatments: • Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase I or phase II. • Treat areas in late Phase II or Phase III condition to create movement corridors, connect habitats, or to break up continuous, hazardous fuels and reduce the potential for catastrophic fire.	**MA-VEG-2:** Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. When conducting conifer treatments: • Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase I or phase II. • Treat areas in late Phase II or Phase III condition to create movement corridors, connect habitats, or to break up continuous, hazardous fuels and reduce the potential for catastrophic fire.	**MA-VEG-2:** Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. When conducting conifer treatments: • Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase I or phase II. • Treat areas in late Phase II or Phase III condition to create movement corridors, connect habitats, or to break up continuous, hazardous fuels and reduce the potential for catastrophic fire.

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• Prioritize methods to reduce conifer canopy cover to those that maintain the understory vegetation as the preferred treatment methods (e.g., mechanical, lop and scatter). • Require that vegetation treatments conducted within 0.6 miles of a lek include an objective of reducing conifer, where technically feasible, to less than 5 percent canopy cover, with preference for complete removal. • Include stipulations to avoid removing old-growth pinyon/juniper stands (e.g., Tausch et al. 2009; Miller et al. 1999). • Use of site-specific analysis and tools like the Vegetation Dynamics Development Tool and the fire and invasives assessment tool report (Chambers et al. 2014) will help refine the location for specific areas to be treated.	• Prioritize methods to reduce conifer canopy cover to those that maintain the understory vegetation as the preferred treatment methods (e.g., mechanical, lop and scatter). • When conducting habitat treatments, remove trees that have corvid nests that could impact PHMA nesting and brood-rearing habitat when in compliance with the Migratory Bird Treaty Act (e.g., when the nest is unoccupied and outside of migratory bird nesting season). • Require that vegetation treatments conducted within 0.6 miles of a lek include an objective of reducing conifer, where technically feasible, to less than 5 percent canopy cover, with preference for complete removal. • Include stipulations to avoid removing old-growth pinyon/juniper stands (e.g., Tausch et al. 2009; Miller et al. 1999). • Use of site-specific analysis and tools like the Vegetation Dynamics Development Tool and the fire and invasives assessment tool report (Chambers et al. 2014) will help refine the location for specific areas to be treated.	• Prioritize methods to reduce conifer canopy cover to those that maintain the understory vegetation as the preferred treatment methods (e.g., mechanical, lop and scatter). • When conducting habitat treatments, remove trees that have corvid nests that could impact PHMA nesting and brood-rearing habitat when in compliance with the Migratory Bird Treaty Act (e.g., when the nest is unoccupied and outside of migratory bird nesting season). • Require that vegetation treatments conducted within 0.6 miles of a lek include an objective of reducing conifer, where technically feasible, to less than 5 percent canopy cover, with preference for complete removal. • Include stipulations to avoid removing old-growth pinyon/juniper stands (e.g., Tausch et al. 2009; Miller et al. 1999). • Use of site-specific analysis and tools like the Vegetation Dynamics Development Tool and the fire and invasives assessment tool report (Chambers et al. 2014) will help refine the location for specific areas to be treated.
MA-VEG-3: In PHMA manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge.	**MA-VEG-3:** In PHMA manage riparian areas for proper functioning condition. In PHMA manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge.	**MA-VEG-3:** In PHMA manage riparian areas for proper functioning condition. In PHMA manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge.
MA-VEG-4: In PHMA, include GRSG habitat objectives in restoration/treatment projects. Include short-term and long-term habitat conditions in treatment objectives, including specific objectives for the establishment of sagebrush cover and height, as well as cover and	No changes made.	**MA-VEG-4**: In PHMA, include GRSG habitat objectives in restoration/treatment projects. Include short-term and long-term habitat conditions in treatment objectives, including specific objectives for the establishment of sagebrush cover and height, as well as cover and

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heights for understory perennial grasses and forbs necessary for GRSG seasonal habitats (see Objective SSS-3). Make meeting the GRSG objectives for the restoration/treatment project one of the primary priorities for the project and subsequent land uses, recognizing that managing for other special status species may result in treatment objectives that may not meet GRSG seasonal habitat objectives (e.g., winter habitat cover requirements versus creation of Utah prairie dog habitat). Where GRSG habitat overlaps with that of federally listed threatened or endangered species (e.g., Utah prairie dogs), coordinate with species-specific experts to develop conservation and recovery objectives and allow habitat treatments that will benefit both species.		heights for understory perennial grasses and forbs necessary for GRSG seasonal habitats (see Objective SSS-3). Make meeting the GRSG objectives for the restoration/treatment project one of the primary priorities for the project and subsequent land uses, recognizing that managing for other special status species may result in treatment objectives that may not meet GRSG seasonal habitat objectives (e.g., winter habitat cover requirements versus creation of Utah prairie dog habitat). Where GRSG habitat overlaps with that of federally listed threatened or endangered species (e.g., Utah prairie dogs), coordinate with species-specific experts to develop conservation and recovery objectives and allow habitat treatments that will benefit both species.
MA-VEG-5: In PHMA, prioritize the use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, desirable non-native seeds may be used as long as they support GRSG habitat objectives. Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, should be the principle objective for rehabilitation efforts.	No changes made.	**MA-VEG-5**: In PHMA, prioritize the use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, desirable non-native seeds may be used as long as they support GRSG habitat objectives. Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, should be the principle objective for rehabilitation efforts.
MA-VEG-6: In PHMA, design post restoration management to ensure long term persistence. This could include changes in livestock grazing management, wild horse and burro management and travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits GRSG, as well as monitoring and maintaining the treated area.	No changes made.	**MA-VEG-6**: In PHMA, design post restoration management to ensure long term persistence. This could include changes in livestock grazing management, wild horse and burro management and travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits GRSG, as well as monitoring and maintaining the treated area.
MA-VEG-7: In PHMA, limit commercial seed or live plant collection to levels that ensure long-term	No changes made.	**MA-VEG-7**: In PHMA, limit commercial seed or live plant collection to levels that ensure long-term

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maintenance of the GRSG habitat objectives. Locations, species allowed for collection, and limits on the amounts to be collected will be developed on a case-by-case basis following environmental review of annual site-specific conditions. Commercial collection during sensitive seasonal periods (see MA-SSS-3G) will include mitigation, developed to reflect the site-specific conditions on the ground, that could include, but is not necessarily limited to, restrictions on the timing and method of collection activities, limiting the number of individuals collecting, providing portions of collected seeds for use in local restoration projects, etc.		maintenance of the GRSG habitat objectives. Locations, species allowed for collection, and limits on the amounts to be collected will be developed on a case-by-case basis following environmental review of annual site-specific conditions. Commercial collection during sensitive seasonal periods (see MA-SSS-3G) will include mitigation, developed to reflect the site-specific conditions on the ground, that could include, but is not necessarily limited to, restrictions on the timing and method of collection activities, limiting the number of individuals collecting, providing portions of collected seeds for use in local restoration projects, etc.
MA-VEG-8: In PHMA, allow for seed collection and use in restoration/reclamation activities. Prioritize use of seed from areas as close as possible to where the seed will be used to capture local adaptations.	No changes made.	**MA-VEG-8**: In PHMA, allow for seed collection and use in restoration/reclamation activities. Prioritize use of seed from areas as close as possible to where the seed will be used to capture local adaptations.
MA-VEG-9: In PHMA, diversify the perennial grass and forb components through additional seeding in areas where historical seedings (e.g., crested wheatgrass) have been recolonized by sagebrush.	No changes made.	**MA-VEG-9**: In PHMA, diversify the perennial grass and forb components through additional seeding in areas where historical seedings (e.g., crested wheatgrass) have been recolonized by sagebrush.
MA-VEG-10: Follow the applicable and technically feasible RDFs in Appendix C for vegetation projects/activities (fuels management) at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection is determined to provide equal or better protection for GRSG or its habitat;	No changes made.	**MA-VEG-10**: Follow the applicable and technically feasible RDFs in Appendix C for vegetation projects/activities (fuels management) at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection is determined to provide equal or better protection for GRSG or its habitat;

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• A specific RDF will provide no additional protection to GRSG or its habitat.		A specific RDF will provide no additional protection to GRSG or its habitat.
MA-VEG-11: In PHMA, design post Emergency Stabilization and Rehabilitation/Burn Area Emergency Rehabilitation management to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of Emergency Stabilization and Rehabilitation projects to benefit GRSG (Eiswerth and Shonkwiler 2006). Monitor and control invasive vegetation post-wildfire for at least 3 years.	No changes made.	**MA-VEG-11**: In PHMA, design post Emergency Stabilization and Rehabilitation/Burn Area Emergency Rehabilitation management to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of Emergency Stabilization and Rehabilitation projects to benefit GRSG (Eiswerth and Shonkwiler 2006). Monitor and control invasive vegetation post-wildfire for at least 3 years.
Integrated Invasive Species Management **MA-VEG-12**: In PHMA, integrated Vegetation Management will be used to control, suppress, and eradicate noxious and invasive species per BLM Handbook H-1740-2.	No changes made.	Integrated Invasive Species Management **MA-VEG-12:** In PHMA, integrated Vegetation Management will be used to control, suppress, and eradicate noxious and invasive species per BLM Handbook H-1740-2.
MA-VEG-13: In PHMA, treatments of Mormon cricket outbreaks will be collaborated with partners at the federal, state, and local levels to maintain and enhance GRSG habitats.	No changes made.	**MA-VEG-13**: In PHMA, treatments of Mormon cricket outbreaks will be collaborated with partners at the federal, state, and local levels to maintain and enhance GRSG habitats.
MA-VEG-14: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.	No changes made.	**MA-VEG-14**: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.
FIRE AND FUELS MANAGEMENT (FIRE)	***FIRE AND FUELS MANAGEMENT (FIRE)***	***FIRE AND FUELS MANAGEMENT (FIRE)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-FIRE-1: In collaboration with the USFWS and relevant state agencies, complete and maintain GRSG Landscape Wildland Fire and Invasive Species Habitat Assessments to prioritize at risk habitats, and identify fuels management, preparedness, suppression and restoration priorities necessary to maintain sagebrush habitat	No changes made.	**MA-FIRE-1:** In collaboration with the USFWS and relevant state agencies, complete and maintain GRSG Landscape Wildland Fire and Invasive Species Habitat Assessments to prioritize at risk habitats, and identify fuels management, preparedness, suppression and restoration priorities necessary to maintain sagebrush habitat

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to support interconnecting GRSG populations. These assessments and subsequent assessment updates will also be a collaborative effort to take into account other GRSG priorities identified in this plan. Appendix H describes a minimal framework example and suggested approach for this assessment. Implementation actions will be tiered to the local GRSG Landscape Wildland Fire and Invasive Species Assessment, using best available science related to the conservation of GRSG. In collaboration with USFWS and relevant state agencies, BLM planning units will identify annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments. Annual treatment needs will be coordinated across state/regional scales and across jurisdictional boundaries for long-term conservation of GRSG. Annually complete a review of landscape assessment implementation efforts with appropriate USFWS and state agency personnel.		to support interconnecting GRSG populations. These assessments and subsequent assessment updates will also be a collaborative effort to take into account other GRSG priorities identified in this plan. Appendix H describes a minimal framework example and suggested approach for this assessment. Implementation actions will be tiered to the local GRSG Landscape Wildland Fire and Invasive Species Assessment, using best available science related to the conservation of GRSG. In collaboration with USFWS and relevant state agencies, BLM planning units will identify annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments. Annual treatment needs will be coordinated across state/regional scales and across jurisdictional boundaries for long-term conservation of GRSG. Annually complete a review of landscape assessment implementation efforts with appropriate USFWS and state agency personnel.
Fuels Management **MA-FIRE-2**: Follow the applicable and technically feasible RDFs in Appendix C for fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection	No changes made.	Fuels Management **MA-FIRE-2**: Follow the applicable and technically feasible RDFs in Appendix C for fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection

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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.		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.
MA-FIRE-3: In PHMA, fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, or protect GRSG habitat. • In collaboration with USFWS and relevant state agencies, BLM planning units with large blocks of GRSG habitat will develop, using the assessment process described in Appendix H, a fuels management strategy which considers 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, where appropriate. When developing this strategy, planning units will consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken. • Use green strips and/or fuel breaks to protect GRSG habitat from fire events. • When possible, locate fuel breaks along existing roads, ROWs, and other suitable topographic or natural features (e.g., areas devoid of vegetation, rock outcrops). • Avoid constructing fuel breaks through large areas of intact GRSG habitat, unless the associated NEPA document demonstrates a biological need for the fuel break to maintain or protect habitat for the GRSG population. Coordinate with the appropriate State of Utah	**MA-FIRE-3:** In PHMA, fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, or protect GRSG habitat. • In collaboration with USFWS and relevant state agencies, BLM planning units with large blocks of GRSG habitat will develop, using the assessment process described in Appendix H, a fuels management strategy which considers 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, where appropriate. When developing this strategy, planning units will consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken. • Use green strips and/or fuel breaks to protect GRSG habitat from fire events. • When possible, locate fuel breaks along existing roads, ROWs, and other suitable topographic or natural features (e.g., areas devoid of vegetation, rock outcrops). • Avoid constructing fuel breaks through large areas of intact GRSG habitat, unless the associated NEPA document demonstrates a biological need for the fuel break to maintain or protect habitat for the GRSG population. Coordinate with the appropriate State of Utah	**MA-FIRE-3:** In PHMA, fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, or protect GRSG habitat. • In collaboration with USFWS and relevant state agencies, BLM planning units with large blocks of GRSG habitat will develop, using the assessment process described in Appendix H, a fuels management strategy which considers 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, where appropriate. When developing this strategy, planning units will consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken. • Use green strips and/or fuel breaks to protect GRSG habitat from fire events. • When possible, locate fuel breaks along existing roads, ROWs, and other suitable topographic or natural features (e.g., areas devoid of vegetation, rock outcrops). • Avoid constructing fuel breaks through large areas of intact GRSG habitat, unless the associated NEPA document demonstrates a biological need for the fuel break to maintain or protect habitat for the GRSG population. Coordinate with the appropriate State of Utah

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agency and the USFWS prior to constructing fuel breaks within nesting and winter habitat. • Using an interdisciplinary approach, a full range of fuel reduction techniques will be available. Fuel reduction techniques such as conifer reduction, grazing, prescribed fire, chemical, biological, and mechanical treatments may be acceptable, given site-specific variables. • Remove encroaching conifer stands as a fuels management tool, where environmental review documents it protects or improves GRSG habitat. • Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success for native seed availability is low, desirable non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and desirable non-native species, as appropriate, to provide for fire breaks. • Upon project completion, monitor and manage fuels projects to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance actions. Control invasive vegetation post-treatment. • Apply seasonal restrictions, as needed, for implementing fuels management treatments according to the type of seasonal habitats present (see MA-SSS-3G). In PHMA, avoid sagebrush reduction fuels treatments within GRSG nesting and winter habitat unless the project plan and associated NEPA	agency and the USFWS prior to constructing fuel breaks within nesting and winter habitat. • Using an interdisciplinary approach, a full range of fuel reduction techniques will be available. Fuel reduction techniques such as conifer reduction, targeted livestock grazing, prescribed fire, chemical, biological, and mechanical treatments may be acceptable, given site-specific variables. • Remove encroaching conifer stands as a fuels management tool, where environmental review documents it protects or improves GRSG habitat. • Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success for native seed availability is low, desirable non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and desirable non-native species, as appropriate, to provide for fire breaks. • Upon project completion, monitor and manage fuels projects to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance actions. Control invasive vegetation post-treatment. • Apply seasonal restrictions, as needed, for implementing fuels management treatments according to the type of seasonal habitats present (see MA-SSS-3G). In PHMA, avoid sagebrush reduction fuels treatments within GRSG nesting and winter habitat	agency and the USFWS prior to constructing fuel breaks within nesting and winter habitat. • Using an interdisciplinary approach, a full range of fuel reduction techniques will be available. Fuel reduction techniques such as conifer reduction, targeted livestock grazing, prescribed fire, chemical, biological, and mechanical treatments may be acceptable, given site-specific variables. • Remove encroaching conifer stands as a fuels management tool, where environmental review documents it protects or improves GRSG habitat. • Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success for native seed availability is low, desirable non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and desirable non-native species, as appropriate, to provide for fire breaks. • Upon project completion, monitor and manage fuels projects to ensure long-term success, including persistence of seeded species and/or other treatment components, such as implementing maintenance actions. Control invasive vegetation post-treatment. • Apply seasonal restrictions, as needed, for implementing fuels management treatments according to the type of seasonal habitats present (see MA-SSS-3G). In PHMA, avoid sagebrush reduction fuels treatments within GRSG nesting and winter habitat

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document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Treatments in winter habitat should be designed to maintain sagebrush, especially tall sagebrush (sagebrush capable of standing above heavier than normal snowfall), which will be available to GRSG above snow during a severe winter, considering the needs of Utah prairie dog recovery. Prior to conducting fuels treatments in winter habitat, coordinate with the appropriate State of Utah agency and the USFWS to design the treatment to strategically reduce wildfire risk around or in the winter habitat.	unless the project plan and associated NEPA document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Treatments in winter habitat should be designed to maintain sagebrush, especially tall sagebrush (sagebrush capable of standing above heavier than normal snowfall), which will be available to GRSG above snow during a severe winter, considering the needs of Utah prairie dog recovery. Prior to conducting fuels treatments in winter habitat, coordinate with the appropriate State of Utah agency and the USFWS to design the treatment to strategically reduce wildfire risk around or in the winter habitat.	unless the project plan and associated NEPA document demonstrate a biological need for the treatment to maintain or improve habitat for the GRSG population, or unless the treatment is for Utah prairie dog recovery where the needs of both species will be addressed on the landscape. Treatments in winter habitat should be designed to maintain sagebrush, especially tall sagebrush (sagebrush capable of standing above heavier than normal snowfall), which will be available to GRSG above snow during a severe winter, considering the needs of Utah prairie dog recovery. Prior to conducting fuels treatments in winter habitat, coordinate with the appropriate State of Utah agency and the USFWS to design the treatment to strategically reduce wildfire risk around or in the winter habitat.
MA-FIRE-4: 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 options; • 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. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire may be used to meet specific fuels objectives that will protect GRSG habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive	No changes made.	**MA-FIRE-4:** 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 options; • 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. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire may be used to meet specific fuels objectives that will protect GRSG habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive

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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), as well as managing the landscape for GRSG in concert with Utah prairie dog. Prescribed fire in known winter range 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.		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), as well as managing the landscape for GRSG in concert with Utah prairie dog. Prescribed fire in known winter range 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.
MA-FIRE-5: In PHMA, during fuels management project design, consider the use of targeted livestock grazing to strategically reduce fine fuels and, if used, implement grazing management that will accomplish this objective. If implementing targeted grazing, implement measures to minimize impacts on native perennial grasses.	~~**MA-FIRE-5**: In PHMA, during fuels management project design, consider the use of targeted livestock grazing to strategically reduce fine fuels and, if used, implement grazing management that will accomplish this objective. If implementing targeted grazing, implement measures to minimize impacts on native perennial grasses.~~	No similar action.
<u>Pre-Suppression</u> **MA-FIRE-6**: Follow the applicable and technically feasible RDFs in Appendix C for fire and fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection 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.	No changes made.	<u>Pre-Suppression</u> **MA-FIRE-6**: Follow the applicable and technically feasible RDFs in Appendix C for fire and fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection 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.

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Implement a coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions and predicted weather patterns) for GRSG habitat. Develop wildfire prevention plans that explain the resource value of GRSG habitat and include fire prevention messages and actions to reduce human-caused ignitions.		Implement a coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions and predicted weather patterns) for GRSG habitat. Develop wildfire prevention plans that explain the resource value of GRSG habitat and include fire prevention messages and actions to reduce human-caused ignitions.
<u>Suppression</u> **MA-FIRE-7:** Follow the applicable and technically feasible RDFs in Appendix C for fire and fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection 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.	No changes made.	<u>Suppression</u> **MA-FIRE-7:** Follow the applicable and technically feasible RDFs in Appendix C for fire and fuels management at the site-level unless at least one of the following can be demonstrated in the NEPA analyses associated with the project/activity: • A RDF is documented to not be applicable to the site-specific conditions of the project/activity; • An alternative RDF, state-implemented conservation measure, or plan-level protection 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.
MA-FIRE-8: 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 in PHMA will be prioritized commensurate with property values and other critical habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG across the	**MA-FIRE-8**: 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 in PHMA will be prioritized commensurate with property values and other critical habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG across the	**MA-FIRE-8**: 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 in PHMA will be prioritized commensurate with property values and other critical habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG across the

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range of GRSG habitat consistent with LUP direction. PHMA will be viewed as more valuable than GHMA when priorities are established. When suppression resources are widely available, maximum efforts will be placed on limiting fire growth in GHMA polygons as well. These priority areas will be further refined following completion of the GRSG Landscape Wildland Fire Invasive Species Habitat Assessments described in Appendix H. In GHMA or areas where treatment/seeding has occurred to improve habitat, prioritize suppression where wildfires threaten adjacent PHMA.	range of GRSG habitat consistent with LUP direction. PHMA will be viewed as more valuable than ~~GHMA~~ non-PHMA when priorities are established. When suppression resources are widely available, maximum efforts will be placed on limiting fire growth outside and adjacent to PHMA ~~in GHMA~~ polygons as well. These priority areas will be further refined following completion of the GRSG Landscape Wildland Fire Invasive Species Habitat Assessments described in Appendix H. ~~In GHMA~~ Outside PHMA or areas where treatment/seeding has occurred to improve habitat, prioritize suppression where wildfires threaten adjacent PHMA.	range of GRSG habitat consistent with LUP direction. PHMA will be viewed as more valuable than non-PHMA when priorities are established. When suppression resources are widely available, maximum efforts will be placed on limiting fire growth outside and adjacent to PHMA polygons as well. These priority areas will be further refined following completion of the GRSG Landscape Wildland Fire Invasive Species Habitat Assessments described in Appendix H. Outside PHMA or areas where treatment/seeding has occurred to improve habitat, prioritize suppression where wildfires threaten adjacent PHMA.
MA-FIRE-9: Within acceptable risk levels use a full range of fire management strategies and tactics, including the management of wildfires to achieve resource objectives, across the range of GRSG habitat consistent with LUP direction. In PHMA, burnout operations areas should be avoided by constructing direct fire lines, whenever safe and practical to do so.	No changes made.	**MA-FIRE-9**: Within acceptable risk levels use a full range of fire management strategies and tactics, including the management of wildfires to achieve resource objectives, across the range of GRSG habitat consistent with LUP direction. In PHMA, burnout operations areas should be avoided by constructing direct fire lines, whenever safe and practical to do so.
LIVESTOCK GRAZING/RANGE MANAGEMENT (LG)	***LIVESTOCK GRAZING/RANGE MANAGEMENT (LG)***	***LIVESTOCK GRAZING/RANGE MANAGEMENT (LG)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-LG-1: PHMA and GHMA will be available for livestock grazing (Figure 2-3, Livestock Grazing [Appendix A]). Active animal unit months (AUMs) for livestock grazing will be 329,521 on BLM lands. Make adjustments to permitted AUMs consistent with regulation and the remaining grazing direction. In addition, on an annual basis livestock numbers and the season of use can be adjusted within the terms and conditions of the permit.	~~**MA-LG-1:** PHMA and GHMA will be available for livestock grazing (Figure 2-3, Livestock Grazing [Appendix A]). Active animal unit months (AUMs) for livestock grazing will be 329,521 on BLM lands. Make adjustments to permitted AUMs consistent with regulation and the remaining grazing direction. In addition, on an annual basis livestock numbers and the season of use can be adjusted within the terms and conditions of the permit.~~	No similar action. [Meaning the presence of GRSG habitat management areas does not affect the determination of whether or not an area is available for livestock grazing or the active AUMs.]

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Make adjustments to permitted use and annual adjustments to levels of livestock use consistent with regulation and the direction identified below where livestock grazing is identified as a causal factor to not meeting standards or habitat objectives.	~~Make adjustments to permitted use and annual adjustments to levels of livestock use consistent with regulation and the direction identified below where livestock grazing is identified as a causal factor to not meeting standards or habitat objectives.~~	
MA-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 first followed by PHMA outside 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 (ex., fire) and legal obligations.	~~**MA-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 first followed by PHMA outside 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 (ex., fire) and legal obligations.~~	No similar action.
MA-LG-3: In PHMA, consult, cooperate, and collaborate with other land owners and management agencies (e.g., private and SITLA) to develop plans which provide for landscape level approaches to habitat improvement. Manage unfenced private and SITLA lands within a grazing allotment that are under exchange of use agreements or percent public land use as a single unit that will have the same management as the public lands.	~~**MA-LG-3**: In PHMA, consult, cooperate, and collaborate with other land owners and management agencies (e.g., private and SITLA) to develop plans which provide for landscape level approaches to habitat improvement. Manage unfenced private and SITLA lands within a grazing allotment that are under exchange of use agreements or percent public land use as a single unit that will have the same management as the public lands.~~	No similar action.
MA-LG-4: Evaluate Utah's Rangeland Health Standards and process grazing permits. Focus monitoring and management activities on allotments found not to be achieving Utah's Rangeland Health Standards where livestock grazing is identified as a causal factor and that have the best opportunities for conserving, enhancing or restoring habitat for GRSG.	~~**MA-LG-4:** Evaluate Utah's Rangeland Health Standards and process grazing permits. Focus monitoring and management activities on allotments found not to be achieving Utah's Rangeland Health Standards where livestock grazing is identified as a causal factor and that have the best opportunities for conserving, enhancing or restoring habitat for GRSG.~~	No similar action.

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Use ecological site descriptions and/or other appropriate information to determine the desired plant community within proper functioning ecological processes for conducting land health assessments to evaluate the achievement or non-achievement of rangeland health standards.	~~Use ecological site descriptions and/or other appropriate information to determine the desired plant community within proper functioning ecological processes for conducting land health assessments to evaluate the achievement or non-achievement of rangeland health standards.~~	
MA-LG-5: In PHMA and GHMA, conduct land health assessments that include indicators and measurements of structure, condition, composition, etc., of vegetation specific to achieving GRSG habitat objectives (Objective SSS-3), including within wetlands and riparian areas. Prioritize land health assessments in SFA, followed by PHMA outside of the SFA. Conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.	~~**MA-LG-5:** In PHMA and GHMA, conduct land health assessments that include indicators and measurements of structure, condition, composition, etc., of vegetation specific to achieving GRSG habitat objectives (Objective SSS-3), including within wetlands and riparian areas. Prioritize land health assessments in SFA, followed by PHMA outside of the SFA. Conduct land health assessments at the watershed scale and use the GRSG habitat objectives when assessing the applicable standard in GRSG habitats.~~	No similar action.
MA-LG-6: In PHMA, when livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperating and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. 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); and • Grazing schedules (including rest or deferment). *Not in priority order	**MA-LG-6:** In PHMA, when an area is not ~~livestock management practices are determined to not be compatible with~~ meeting or making progress towards achievable habitat objectives and Land Health Standards, and the causal factor is livestock grazing (i.e., improper livestock grazing) ~~following appropriate consultation, cooperating and coordination~~, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. 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); and • Grazing schedules (including rest or deferment).	**MA-LG-6:** In PHMA, when an area is not meeting or making progress towards achievable habitat objectives and Land Health Standards, and the causal factor is livestock grazing (i.e., improper livestock grazing), implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. 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); and • Grazing schedules (including rest or deferment). *Not in priority order

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The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFA and PHMA will include specific management thresholds based on **Table 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. Adjustments to meet seasonal GRSG habitat requirements could include those items identified in the list above.	*Not in priority order When improper livestock grazing is the causal factor for not meeting or making progress towards achievable habitat objectives and Land Health Standards, the NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within ~~SFA and~~ PHMA will analyze multiple potential modifications (e.g., alternatives from the list above) that address the reasons for not meeting, allowing the ~~include specific management thresholds based on 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. Adjustments to meet seasonal GRSG habitat requirements could include those items identified in the list above.	When improper livestock grazing is the causal factor for not meeting or making progress towards achievable habitat objectives and Land Health Standards, the NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will analyze multiple potential modifications (e.g., alternatives from the list above) that address the reasons for not meeting, allowing the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis. Adjustments to meet seasonal GRSG habitat requirements could include those items identified in the list above.
MA-LG-7: In PHMA, during drought periods, prioritize evaluating effects of the drought relative to GRSG needs for food and cover. Initiate emergency management measures (e.g. delaying turnout, adjusting the amount and/or duration of livestock grazing, implement other terms of the permit) during times of drought to protect GRSG habitat, in accordance with Instruction Memorandum 2013-094 (Resource Management During Drought), or other agency policies. Implement post-drought management to allow for vegetation recovery that meets GRSG needs.	~~**MA-LG-7:** In PHMA, during drought periods, prioritize evaluating effects of the drought relative to GRSG needs for food and cover.~~ ~~Initiate emergency management measures (e.g. delaying turnout, adjusting the amount and/or duration of livestock grazing, implement other terms of the permit) during times of drought to protect GRSG habitat, in accordance with Instruction Memorandum 2013-094 (Resource Management During Drought), or other agency policies.~~ ~~Implement post-drought management to allow for vegetation recovery that meets GRSG needs.~~	No similar action.
MA-LG-8: In PHMA, manage riparian areas and wet meadows for proper functioning condition.	~~**MA-LG-8:** In PHMA, manage riparian areas and wet meadows for proper functioning condition.~~	No similar action.
MA-LG-9: In PHMA, assess livestock grazing in riparian and meadow complexes and ensure	~~**MA-LG-9:** In PHMA, assess livestock grazing in riparian and meadow complexes and ensure~~	No similar action.

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recovery or maintenance of appropriate vegetation and water quality. Where recovery or maintenance is not occurring and the causal factor is livestock grazing, reduce pressure on riparian or wet meadow vegetation used by GRSG in the summer by adjusting grazing management practices (e.g., use fencing/herding techniques, or changes in seasonal use or livestock distribution). Allotments within SFA, followed by those within PHMA, and 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.	~~recovery or maintenance of appropriate vegetation and water quality. Where recovery or maintenance is not occurring and the causal factor is livestock grazing, reduce pressure on riparian or wet meadow vegetation used by GRSG in the summer by adjusting grazing management practices (e.g., use fencing/herding techniques, or changes in seasonal use or livestock distribution).~~ ~~Allotments within SFA, followed by those within PHMA, and 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.~~	
MA-LG-10: In PHMA, limit authorization of new water developments to projects that have a neutral effect or are beneficial to GRSG habitat (such as by shifting livestock use away from critical areas). New developments that divert surface water must be designed to maintain riparian or wet meadow vegetation and hydrology to meet GRSG needs.	**MA-LG-10:** In PHMA, manage existing and ~~limit authorization of~~ new water developments to ~~projects that~~ have a neutral ~~effect~~ or ~~are~~ beneficial effect to GRSG habitat ~~(such as by shifting livestock use away from critical areas). New developments that divert surface water must be designed to maintain riparian or wet meadow vegetation and hydrology to meet GRSG needs.~~	**MA-LG-10:** In PHMA, manage existing and new water developments to have a neutral or beneficial effect to GRSG habitat.
MA-LG-11: In PHMA, evaluate existing water developments (springs, seeps, etc., and their associated pipelines) to determine if modifications are necessary to maintain or improve riparian areas and GRSG habitat. Make modifications where necessary, considering impacts on other water uses when such considerations are neutral or beneficial to GRSG.	~~**MA-LG-11:** In PHMA, evaluate existing water developments (springs, seeps, etc., and their associated pipelines) to determine if modifications are necessary to maintain or improve riparian areas and GRSG habitat. Make modifications where necessary, considering impacts on other water uses when such considerations are neutral or beneficial to GRSG.~~	No similar action.
MA-LG-12: In PHMA, ensure that vegetation treatments conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock).	~~**MA-LG-12:** In PHMA, ensure that vegetation treatments conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock).~~	No similar action.

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MA-LG-13: In PHMA, evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If existing seedings provide value in conserving or enhancing GRSG habitats, then no restoration will be necessary. Assess the compatibility of these seedings for GRSG habitat during the land health assessments.	~~**MA-LG-13**: In PHMA, evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If existing seedings provide value in conserving or enhancing GRSG habitats, then no restoration will be necessary. Assess the compatibility of these seedings for GRSG habitat during the land health assessments.~~	No similar action.
MA-LG-14: In PHMA, design new structural range improvements to have a neutral effect or conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.	~~**MA-LG-14:** In PHMA, design new structural range improvements to have a neutral effect or conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.~~	No similar action.
MA-LG-15: In PHMA, evaluate existing structural range improvements to make sure they have a neutral effect or conserve, enhance or restore GRSG habitat.	~~**MA-LG-15:** In PHMA, evaluate existing structural range improvements to make sure they have a neutral effect or conserve, enhance or restore GRSG habitat.~~	No similar action.
MA-LG-16: To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas (Stevens et al. 2012) based on proximity to lek (e.g., within 1.2 miles of a lek), lek size, and topography, or as latest science indicates. Prioritize actions in SFA first, then PHMA. Employ NRCS fence collision risk tool (NRCS/CEAP Conservation Insight Publication	**MA-LG-16:** To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas (Stevens et al. 2012) based on proximity to lek (e.g., within 1.2 miles of a lek), lek size, and topography, or as latest science indicates. ~~Prioritize actions in SFA first, then PHMA.~~ Employ NRCS fence collision risk tool (NRCS/CEAP Conservation Insight Publication	**MA-LG-16:** To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas (Stevens et al. 2012) based on proximity to lek (e.g., within 1.2 miles of a lek), lek size, and topography, or as latest science indicates. Employ NRCS fence collision risk tool (NRCS/CEAP Conservation Insight Publication "Applying the Sage Grouse Fence Collision Risk Tool to Reduce Bird Strikes").

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"Applying the Sage Grouse Fence Collision Risk Tool to Reduce Bird Strikes").	"Applying the Sage Grouse Fence Collision Risk Tool to Reduce Bird Strikes").	
MA-LG-17: In PHMA, monitor for and treat noxious weeds and treat invasive species where needed, associated with existing range improvements.	~~**MA-LG-17:** In PHMA, monitor for and treat noxious weeds and treat invasive species where needed, associated with existing range improvements.~~	No similar action.
MA-LG-18: 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 should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.	~~**MA-LG-18:** 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 should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.~~	No similar action.
WILD HORSES AND BURROS (WHB)	***WILD HORSES AND BURROS (WHB)***	***WILD HORSES AND BURROS (WHB)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-WHB-1: Manage HMAs in GRSG habitat within established appropriate management level ranges to achieve and maintain GRSG habitat objectives (Objective SSS-3).	No changes made.	**MA-WHB-1:** Manage HMAs in GRSG habitat within established appropriate management level ranges to achieve and maintain GRSG habitat objectives (Objective SSS-3).
MA-WHB-2: 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 PHMA; 2. HMAs containing only GHMA; 3. HMAs containing sagebrush habitat outside of PHMA and GHMA mapped habitat; and 4. HMAs without GRSG habitat.	**MA-WHB-2:** 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 PHMA; ~~2. HMAs containing only GHMA;~~ 3. HMAs containing sagebrush habitat outside of PHMA ~~and GHMA~~ mapped habitat; and 4. HMAs without GRSG habitat.	**MA-WHB-2:** 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 PHMA; 2. HMAs containing sagebrush habitat outside of PHMA mapped habitat; and 3. HMAs without GRSG habitat.
MA-WHB-3: 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.	No changes made.	**MA-WHB-3:** 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.

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MA-WHB-4: In PHMA, assess and adjust appropriate management levels through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current appropriate management levels are not being exceeded.	No changes made.	**MA-WHB-4:** In PHMA, assess and adjust appropriate management levels through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current appropriate management levels are not being exceeded.
MA-WHB-5: In PHMA, monitor the effects of WHB use in relation to GRSG seasonal habitat objectives on an annual basis to help determine future management actions.	No changes made.	**MA-WHB-5:** In PHMA, monitor the effects of WHB use in relation to GRSG seasonal habitat objectives on an annual basis to help determine future management actions.
MA-WHB-6: Develop or amend herd management plans to incorporate GRSG habitat objectives and management considerations for all HMAs within GRSG habitat, with an emphasis placed on PHMA.	No changes made.	**MA-WHB-6:** Develop or amend herd management plans to incorporate GRSG habitat objectives and management considerations for all HMAs within GRSG habitat, with an emphasis placed on PHMA.
MA-WHB-7: Consider removals or exclusion of wild horses/burros during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.	No changes made.	**MA-WHB-7:** Consider removals or exclusion of wild horses/burros during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.
MA-WHB-8: When conducting NEPA analysis for wild horse/burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect effect on GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.	No changes made.	**MA-WHB-8**: When conducting NEPA analysis for wild horse/burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect effect on GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.
MA-WHB-9: 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 wild horse and burro program.	No changes made.	**MA-WHB-9:** 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 wild horse and burro program.

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MINERALS RESOURCES (MR)	***MINERALS RESOURCES (MR)***	***MINERALS RESOURCES (MR)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-1: Allow exploration for all minerals (e.g., geophysical, trenching, drilling, etc.) within mapped occupied GRSG habitat areas that are not closed to leasing, permitting, etc., to obtain exploratory information. In areas where leasing, permitting, etc. is still available, minerals exploration shall be subject to the pertinent management for discretionary activities in PHMA (MA-SSS-3) and GHMA (MA-SSS-5).	No changes made.	**MA-MR-1:** Allow exploration for all minerals (e.g., geophysical, trenching, drilling, etc.) within mapped occupied GRSG habitat areas that are not closed to leasing, permitting, etc., to obtain exploratory information. In areas where leasing, permitting, etc. is still available, minerals exploration shall be subject to the pertinent management for discretionary activities in PHMA (MA-SSS-3) and GHMA (MA-SSS-5).
Fluid Minerals	***Fluid Minerals***	***Fluid Minerals***
Objectives:	**Objectives:**	**Objectives:**
Objective MR-1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR, Part 3162.3-1(h).	~~**Objective MR-1:** Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR, Part 3162.3-1(h).~~	No similar objective.
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, minimize, and compensate for adverse impacts on the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with	No changes made.	**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, minimize, and compensate for adverse impacts on the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with

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the lessee, operator, or project proponent in developing an application for permit to drill for the lease to avoid, minimize, and compensate for impacts on GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such federal leases.		the lessee, operator, or project proponent in developing an application for permit to drill for the lease to avoid, minimize, and compensate for impacts on GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such federal leases.
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-2: Manage fluid mineral leasing in PHMA as follows (Figure 2-4, Fluid Minerals [Oil and Gas] [Appendix A]) (Appendix G, Stipulations Associated with Fluid Mineral Leasing): • open to leasing, subject to standard stipulations: 0 acres • open to leasing, subject to CSU and/or TL stipulations: 23,600 acres • open to leasing, subject to NSO stipulations: 3,229,600 acres • closed to leasing: 111,900 acres	No changes made.	**MA-MR-2:** Manage fluid mineral leasing in PHMA as follows (Figure 2-4, Fluid Minerals [Oil and Gas] [Appendix A]) (Appendix G, Stipulations Associated with Fluid Mineral Leasing): • open to leasing, subject to standard stipulations: 0 acres • open to leasing, subject to CSU and/or TL stipulations: 23,600 acres • open to leasing, subject to NSO stipulations: 3,229,600 acres • closed to leasing: 111,900 acres
Unleased Federal Fluid Mineral Estate	***Unleased Federal Fluid Mineral Estate***	***Unleased Federal Fluid Mineral Estate***
MA-MR-3: Unleased Areas within PHMA PHMA will be designated as open to leasing fluid minerals, subject to NSO stipulations. In SFA, there will be no waivers, exceptions, or modifications. In the remainder of PHMA, no waivers or modifications to a fluid mineral lease NSO stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action: • Would not have direct, indirect, or cumulative effects on GRSG or its habitat; or, • Is proposed to be undertaken as an alternative to a similar action occurring on a nearby	**MA-MR-3:** Unleased Areas within PHMA PHMA will be designated as open to leasing fluid minerals, subject to NSO stipulations. ~~In SFA, there will be no waivers, exceptions, or modifications. In the remainder of PHMA, no waivers or modifications to a fluid mineral lease no surface occupancy stipulation will be granted.~~ Within PHMA, the Authorized Officer may grant an exception to a fluid mineral lease NSO stipulation ~~only~~ where the proposed action: • Occurs in non-habitat that does not provide important connectivity between habitat areas and the development would not cause indirect disturbance to or disruption of adjacent seasonal habitats that would impair their	**MA-MR-3:** Unleased Areas within PHMA PHMA will be designated as open to leasing fluid minerals, subject to NSO stipulations. Within PHMA, the Authorized Officer may grant an exception to a fluid mineral lease NSO stipulation where the proposed action: • Occurs in non-habitat that does not provide important connectivity between habitat areas and the development would not cause indirect disturbance to or disruption of adjacent seasonal habitats that would impair their biological function of providing the life-history or behavioral needs of the Greater Sage-Grouse population due to project design (e.g., minimize sound, preclude tall structures,

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parcel, and would provide a clear conservation gain to GRSG. Exceptions based on conservation gain (ii) may only be considered in (a) PHMA 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 fluid mineral lease existing as of the date of this Approved RMPA. 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. 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 publically available at least quarterly. In addition, any lease activities will apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation,	biological function of providing the life-history or behavioral needs of the Greater Sage-Grouse population due to project design (e.g., minimize sound, preclude tall structures, require perch deterrents), as demonstrated in the project's NEPA document; ~~Would not have direct, indirect, or cumulative effects on GRSG or its habitat;~~ or, • Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and development on the parcel in question would have less of an impact on Greater Sage-Grouse or its habitat than on the nearby parcel; this exception must also include measures sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts ~~and would provide a clear conservation gain to GRSG~~. The BLM Authorized Officer may grant a modification to a fluid mineral lease no surface occupancy stipulation only where an exception is granted, as described above, for the primary disturbance (e.g., well pad, compressor station). A modification to the no surface occupancy stipulation could be considered for the associated infrastructure related to the development that are not individually precluded by other Greater Sage-Grouse actions (e.g., roads, pipelines, power lines). While the no surface occupancy stipulation could be modified for this infrastructure, it must still comply with other Greater Sage-Grouse management contained in MA-SSS-3. The BLM Authorized Officer may grant a waiver to a fluid mineral lease no surface occupancy stipulation if, through the appropriate planning	require perch deterrents), as demonstrated in the project's NEPA document; or • Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and development on the parcel in question would have less of an impact on Greater Sage-Grouse or its habitat than on the nearby parcel; this exception must also include measures sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. The BLM Authorized Officer may grant a modification to a fluid mineral lease no surface occupancy stipulation only where an exception is granted, as described above, for the primary disturbance (e.g., well pad, compressor station). A modification to the no surface occupancy stipulation could be considered for the associated infrastructure related to the development that are not individually precluded by other Greater Sage-Grouse actions (e.g., roads, pipelines, power lines). While the no surface occupancy stipulation could be modified for this infrastructure, it must still comply with other Greater Sage-Grouse management contained in MA-SSS-3. The BLM Authorized Officer may grant a waiver to a fluid mineral lease no surface occupancy stipulation if, through the appropriate planning process (i.e., plan maintenance, amendment) the area is no longer within PHMA. Approved exceptions will be made publicly available at least quarterly. In addition, any lease activities will apply the pertinent management for discretionary activities in

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disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs). Outside PHMA, portions of opportunity areas within 4 miles of a lek that is located in PHMA will be open for leasing with CSU stipulations (avoiding noise and tall structures that could affect adjacent GRSG use of PHMA).	process (i.e., plan maintenance, amendment) the area is no longer within PHMA. ~~Exceptions based on conservation gain (ii) may only be considered in (a) PHMA 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 fluid mineral lease existing as of the date of this Approved RMPA. 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.~~ ~~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. In addition, any lease activities will apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, ~~buffers,~~	PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, seasonal restrictions, and RDFs), including if an exception to the NSO is granted. Outside PHMA, portions of opportunity areas within the buffer distances identified in Appendix B of a lek that is located in PHMA will be open for leasing with CSU stipulations (avoiding noise and tall structures that could affect adjacent GRSG use of PHMA).

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	seasonal restrictions, and RDFs), including if an exception to the NSO is granted. Outside PHMA, portions of opportunity areas within the buffer distances identified in Appendix B ~~4 miles~~ of a lek that is located in PHMA will be open for leasing with CSU stipulations (avoiding noise and tall structures that could affect adjacent GRSG use of PHMA).	
MA-MR-4: Unleased Areas within GHMA Manage fluid mineral leasing in GHMA as follows (Figure 2-4): • open to leasing, subject to standard stipulations: 238,700 acres • open to leasing, subject to CSU and/or TL stipulations: 294,200 acres • open to leasing, subject to NSO stipulations: 32,700 acres • closed to leasing: 28,400 acres • planning decision not mapped: 133,400 acres In GHMA, new development of fluid mineral leases could be considered if they apply the pertinent management for discretionary activities in GHMA identified in MA-SSS-5.	~~**MA-MR-4:**~~ ~~Unleased Areas within GHMA~~ ~~Manage fluid mineral leasing in GHMA as follows (Figure 2-4):~~ • ~~open to leasing, subject to standard stipulations: 238,700 acres~~ • ~~open to leasing, subject to CSU and/or TL stipulations: 294,200 acres~~ • ~~open to leasing, subject to NSO stipulations: 32,700 acres~~ • ~~closed to leasing: 28,400 acres~~ • ~~planning decision not mapped: 133,400 acres~~ ~~In GHMA, new development of fluid mineral leases could be considered if they apply the pertinent management for discretionary activities in GHMA identified in MA-SSS-5.~~	No similar action.
Leased Federal Fluid Mineral Estate	***Leased Federal Fluid Mineral Estate***	***Leased Federal Fluid Mineral Estate***
MA-MR-5: Apply the following conservation measures through implementation decisions (e.g., approval of an application for permit to drill, geothermal drilling permit, Sundry Notice, Master Development Plans, etc.) and upon completion of the environmental record of review (43 CFR, Part 3162.5). In this process, evaluate whether the conservation measures are "reasonable" (43 CFR, Part 3101.1-2) with the valid existing rights.	No changes made.	**MA-MR-5:** Apply the following conservation measures through implementation decisions (e.g., approval of an application for permit to drill, geothermal drilling permit, Sundry Notice, Master Development Plans, etc.) and upon completion of the environmental record of review (43 CFR, Part 3162.5). In this process, evaluate whether the conservation measures are "reasonable" (43 CFR, Part 3101.1-2) with the valid existing rights.

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MA-MR-6: In PHMA, avoid, minimize, and compensate for impacts on GRSG and their habitat (e.g., habitat loss, fragmentation, indirect impacts, etc.) from new oil and gas development on existing leases. Where possible, place development outside of PHMA. If it is determined that this restriction renders the recovery of fluid minerals infeasible or uneconomic, considering the lease as a whole, or where development of existing leases requires that disturbance density exceeds 1 per 640, and/or 3 percent disturbance cap, apply other measures to site proposed lease activities to meet GRSG habitat objectives and require mitigation as described in Appendix F. If the lease is entirely within PHMA, if feasible, apply the lek buffers from MA-SSS-3H. If this is not technically feasible, locate infrastructure in areas that will minimize habitat loss. Require any development to be placed at the most distal part of the lease from the lek or in areas least harmful to GRSG populations and habitat (e.g., areas where local terrain features such as ridges and ravines may reduce habitat importance or shield nearby habitat from disruptive factors). For geophysical exploration activities, include seasonal TLs and RDFs as permit conditions of approval to eliminate or minimize surface-disturbing and disruptive activities within nesting and brood-rearing habitat and winter concentration areas.	**MA-MR-6:** In PHMA, avoid, minimize, and compensate for impacts on GRSG and their habitat (e.g., habitat loss, fragmentation, indirect impacts, etc.) from new oil and gas development on existing leases (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA). Where possible, place development outside of PHMA. If it is determined that this restriction renders the recovery of fluid minerals infeasible or uneconomic, considering the lease as a whole, or where development of existing leases requires that disturbance density exceeds 1 per 640, and/or 3 percent disturbance cap, apply other measures to site proposed lease activities to meet GRSG habitat objectives and require mitigation as described in Appendix F. If the lease is entirely within PHMA, if technically feasible, apply the lek buffers from MA-SSS-3H. If this is not technically feasible, locate infrastructure in areas that will minimize habitat loss. Require any development to be placed at the most distal part of the lease from the lek or in areas least harmful to GRSG populations and habitat (e.g., areas where local terrain features such as ridges and ravines may reduce habitat importance or shield nearby habitat from disruptive factors). For geophysical exploration activities, include seasonal TLs and RDFs as permit conditions of approval to eliminate or minimize surface-disturbing and disruptive activities within nesting and brood-rearing habitat and winter concentration areas.	**MA-MR-6:** In PHMA, avoid, minimize, and compensate for impacts on GRSG and their habitat (e.g., habitat loss, fragmentation, indirect impacts, etc.) from new oil and gas development on existing leases (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA). Where possible, place development outside of PHMA. If it is determined that this restriction renders the recovery of fluid minerals infeasible or uneconomic, considering the lease as a whole, or where development of existing leases requires that disturbance density exceeds 1 per 640, and/or 3 percent disturbance cap, apply other measures to site proposed lease activities to meet GRSG habitat objectives and require mitigation as described in Appendix F. If the lease is entirely within PHMA, if technically feasible, apply the lek buffers from MA-SSS-3H. If this is not technically feasible, locate infrastructure in areas that will minimize habitat loss. Require any development to be placed at the most distal part of the lease from the lek or in areas least harmful to GRSG populations and habitat (e.g., areas where local terrain features such as ridges and ravines may reduce habitat importance or shield nearby habitat from disruptive factors). For geophysical exploration activities, include seasonal TLs and RDFs as permit conditions of approval to eliminate or minimize surface-disturbing and disruptive activities within nesting and brood-rearing habitat and winter concentration areas.
MA-MR-7: To the extent consistent with existing lease-rights, apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap,	**MA-MR-7:** To the extent consistent with existing lease-rights, apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap,	**MA-MR-7:** To the extent consistent with existing lease-rights, apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap,

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minerals/energy density, buffers, seasonal restrictions, and RDFs) and in GHMA identified in MA-SSS-5 (i.e., mitigation, buffers, and RDFs).	minerals/energy density, buffers, seasonal restrictions, and RDFs) ~~and in GHMA identified in MA-SSS-5 (i.e., mitigation, buffers, and RDFs)~~.	minerals/energy density, buffers, seasonal restrictions, and RDFs).
MA-MR-8: In PHMA, operators must submit a master development plan with site-specific plans of development for roads, wells, pipelines and other infrastructure prior to any development being authorized. The BLM will evaluate the plan through the NEPA process.	No changes made.	**MA-MR-8:** In PHMA, operators must submit a master development plan with site-specific plans of development for roads, wells, pipelines and other infrastructure prior to any development being authorized. The BLM will evaluate the plan through the NEPA process.
MA-MR-9: In PHMA, encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.	No changes made.	**MA-MR-9:** In PHMA, encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.
MA-MR-10: In PHMA, identify areas where acquisitions (including federal mineral rights) or conservation easements, will benefit GRSG habitat.	~~**MA-MR-10:** In PHMA, identify areas where acquisitions (including federal mineral rights) or conservation easements, will benefit GRSG habitat.~~	No similar action.
MA-MR-11: In PHMA, require a full reclamation bond specific to the site in accordance with 43 CFR, Parts 3104.2, 3104.3, 3104.5, and 36 CFR, Part 228.109. Insure bonds are sufficient for costs relative to reclamation that will result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors will perform the work.	No changes made.	**MA-MR-11:** In PHMA, require a full reclamation bond specific to the site in accordance with 43 CFR, Parts 3104.2, 3104.3, 3104.5, and 36 CFR, Part 228.109. Insure bonds are sufficient for costs relative to reclamation that will result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors will perform the work.
Locatable Minerals	***Locatable Minerals***	***Locatable Minerals***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-12: SFA will be recommended for withdrawal from the Mining Law of 1872 (as amended), subject to valid existing rights (Figure 2-5, Locatable Minerals [Appendix A]). Other federal lands or non-federal lands with federal mineral interests within PHMA or GHMA	**MA-MR-12:** ~~SFA will be recommended for withdrawal from the Mining Law of 1872 (as amended), subject to valid existing rights (Figure 2-5, Locatable Minerals [Appendix A]).~~ ~~Other~~ Federal lands or non-federal lands with federal mineral interests within PHMA ~~or GHMA~~	**MA-MR-12:** Federal lands or non-federal lands with federal mineral interests within PHMA that are not already withdrawn will be available for locatable mineral entry. Areas that are recommended for withdrawal will continue to be managed as they are currently managed.

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that are not already withdrawn will be available for locatable mineral entry. Areas that are recommended for withdrawal will continue to be managed as they are currently managed. In PHMA, to the extent consistent with the rights of a mining claimant under existing laws and regulations, limit surface disturbance from locatable mineral development and apply management to minimize and mitigate impacts. To the extent allowable by law, work with claimants to voluntarily apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs) and in GHMA identified in MA-SSS-5 (i.e., mitigation and buffers). Regardless of whether agreements with the claimant incorporates the 3 percent disturbance cap (MA-SSS-3B), disturbance from locatable mineral development will be included as disturbance when calculating disturbance for other land uses.	that are not already withdrawn will be available for locatable mineral entry. Areas that are recommended for withdrawal will continue to be managed as they are currently managed. In PHMA, to the extent consistent with the rights of a mining claimant under existing laws and regulations, limit surface disturbance from locatable mineral development and apply management to minimize and mitigate impacts. To the extent allowable by law, work with claimants to voluntarily apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs) ~~and in GHMA identified in MA-SSS-5 (i.e., mitigation and buffers)~~. Regardless of whether agreements with the claimant incorporates the 3 percent disturbance cap (MA-SSS-3B), disturbance from locatable mineral development will be included as disturbance when calculating disturbance for other land uses.	In PHMA, to the extent consistent with the rights of a mining claimant under existing laws and regulations, limit surface disturbance from locatable mineral development and apply management to minimize and mitigate impacts. To the extent allowable by law, work with claimants to voluntarily apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs). Regardless of whether agreements with the claimant incorporates the 3 percent disturbance cap (MA-SSS-3B), disturbance from locatable mineral development will be included as disturbance when calculating disturbance for other land uses.
Saleable Materials	***Saleable Materials***	***Saleable Materials***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-13: In PHMA, manage mineral materials as follows (Figure 2-6, Salable Minerals [Mineral Materials] [Appendix A]): • open to mineral materials development: 0 acres • closed to mineral materials development: 2,587,100 acres	No changes made.	**MA-MR-13:** In PHMA, manage mineral materials as follows (Figure 2-6, Salable Minerals [Mineral Materials] [Appendix A]): • open to mineral materials development: 0 acres • closed to mineral materials development: 2,587,100 acres
MA-MR-14: Close PHMA to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met at all	**MA-MR-14:** Close PHMA to new mineral material sales (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA). However, these areas remain "open" to free use	**MA-MR-14:** Close PHMA to new mineral material sales (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA). However, these areas remain "open" to free use

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phases of the development (construction and long-term operation of facilities): • the activity is within the population area (BSU) and project area disturbance cap (MA-SSS-3B); • the activity is subject to the provisions set forth in the mitigation framework (MA-SSS-3A); • all applicable RDFs are applied (MA-SSS-3I); and • the activity applies the other pertinent management for discretionary activities in PHMA in MA-SSS-3. In GHMA, new mineral material developments can be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.	permits and the expansion of existing active pits, only if the following criteria are met at all phases of the development (construction and long-term operation of facilities): • the activity is within the population area (BSU) and project area disturbance cap (MA-SSS-3B); • the activity is subject to the provisions set forth in the mitigation framework (MA-SSS-3A); • all applicable RDFs are applied (MA-SSS-3I); and • the activity applies the other pertinent management for discretionary activities in PHMA in MA-SSS-3. ~~In GHMA, new mineral material developments can be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.~~	permits and the expansion of existing active pits, only if the following criteria are met at all phases of the development (construction and long-term operation of facilities): • the activity is within the population area (BSU) and project area disturbance cap (MA-SSS-3B); • the activity is subject to the provisions set forth in the mitigation framework (MA-SSS-3A); • all applicable RDFs are applied (MA-SSS-3I); and • the activity applies the other pertinent management for discretionary activities in PHMA in MA-SSS-3.
Non-Energy Leasable Minerals	***Non-Energy Leasable Minerals***	***Non-Energy Leasable Minerals***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-15: In PHMA, manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests as follows (Figure 2-7, Non-Energy Leasable Minerals [Appendix A]): • Open to Leasing Consideration – 24,800 acres (National Forest System lands in Wyoming) • Closed to Leasing – 3,340,200 acres In PHMA, close federal lands and non-federal lands with federal mineral interests to nonenergy leasable mineral leasing. However, expansion of existing operations could be considered if the new lease is contiguous with an existing operation and the new lease (construction, operation, or maintenance) applies the pertinent management for discretionary activities in PHMA identified in MA-	**MA-MR-15:** In PHMA, manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests as follows (Figure 2-7, Non-Energy Leasable Minerals [Appendix A]) (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA): • Open to Leasing Consideration – 24,800 acres (National Forest System lands in Wyoming) • Closed to Leasing – 3,340,200 acres In PHMA, close federal lands and non-federal lands with federal mineral interests to nonenergy leasable mineral leasing. However, expansion of existing operations could be considered if the new lease is contiguous with an existing operation and the new lease (construction, operation, or	**MA-MR-15:** In PHMA, manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests as follows (Figure 2-7, Non-Energy Leasable Minerals [Appendix A]) (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA): • Open to Leasing Consideration – 24,800 acres (National Forest System lands in Wyoming) • Closed to Leasing – 3,340,200 acres In PHMA, close federal lands and non-federal lands with federal mineral interests to nonenergy leasable mineral leasing. However, expansion of existing operations could be considered if the new lease is contiguous with an existing operation and the new lease (construction, operation, or

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SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs).	maintenance) applies the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs).	maintenance) applies the pertinent management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, seasonal restrictions, and RDFs).
MA-MR-16: In GHMA, manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests as follows (Figure 2-7): • Open to Leasing Consideration – 699,300 acres • Closed to Leasing – 28,200 acres New leasing and development in GHMA can be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.	~~**MA-MR-16:** In GHMA, manage nonenergy leasable minerals on federal lands and non-federal lands with federal mineral interests as follows (Figure 2-7):~~ ~~• Open to Leasing Consideration – 699,300 acres~~ ~~• Closed to Leasing – 28,200 acres~~ ~~New leasing and development in GHMA can be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.~~	No similar action.
MA-MR-17: In PHMA, exploration and prospecting activities associated with nonenergy leasable minerals will be required to comply with the same stipulations identified for leasing and development, above. In addition: • The exploration/prospecting activity does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter) (MA-SSS-3G). • Facilities associated with exploration/prospecting activities will be removed before the next breeding season. • Disturbances will be restored.	No changes made.	**MA-MR-17:** In PHMA, exploration and prospecting activities associated with nonenergy leasable minerals will be required to comply with the same stipulations identified for leasing and development, above. In addition: • The exploration/prospecting activity does not occur during sensitive seasonal periods (i.e., breeding and nesting, brood rearing, winter) (MA-SSS-3G). • Facilities associated with exploration/prospecting activities will be removed before the next breeding season. • Disturbances will be restored.
Coal	***Coal***	***Coal***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-18: Leases Associated with Surface Mining At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application	**MA-MR-18:** Leases Associated with Surface Mining At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application	**MA-MR-18:** Leases Associated with Surface Mining At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application

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area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. Coordination with the appropriate State of Utah agency and the determination of essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1) will consider site-specific information associated with potential lease nomination areas as part of the unsuitability process identified above. ~~PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).~~	area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. Coordination with the appropriate State of Utah agency and the determination of essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1) will consider site-specific information associated with potential lease nomination areas as part of the unsuitability process identified above.
MA-MR-19: Leases Associated with Underground Mining Consider leasing PHMA for coal that will be extracted through underground mining. Require the following stipulations as part of any new lease or lease modification: • In PHMA, appurtenant facilities will not be placed in GRSG habitat, where technically feasible. • In PHMA, if placement of facilities outside of GRSG habitat is not technically feasible, disturbances associated with the lease (construction, operation, or maintenance) can be allowed if they are consistent with the pertinent management for discretionary activities identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, noise restrictions, seasonal restrictions, etc.). If the above criteria cannot be met, do not grant new leases or modifications.	No changes made.	**MA-MR-19:** Leases Associated with Underground Mining Consider leasing PHMA for coal that will be extracted through underground mining. Require the following stipulations as part of any new lease or lease modification: • In PHMA, appurtenant facilities will not be placed in GRSG habitat, where technically feasible. • In PHMA, if placement of facilities outside of GRSG habitat is not technically feasible, disturbances associated with the lease (construction, operation, or maintenance) can be allowed if they are consistent with the pertinent management for discretionary activities identified in MA-SSS-3 (e.g., mitigation, disturbance cap, minerals/energy density, buffers, noise restrictions, seasonal restrictions, etc.). If the above criteria cannot be met, do not grant new leases or modifications.
MA-MR-20: New leasing for underground mining of coal in GHMA can be considered if consistent	~~**MA-MR-20:** New leasing for underground mining of coal in GHMA can be considered if consistent with the pertinent management for discretionary~~	No similar action.

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with the pertinent management for discretionary activities described in MA-SSS-5.	~~activities described in MA-SSS-5.~~	
MA-MR-21: In PHMA, exploration activities needed to meet data adequacy standards associated with potential coal leasing will be required to comply with the pertinent management for discretionary activities identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, noise restrictions, seasonal restrictions, etc.).	~~**MA-MR-21:** In PHMA, exploration activities needed to meet data adequacy standards associated with potential coal leasing will be required to comply with the pertinent management for discretionary activities identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, noise restrictions, seasonal restrictions, etc.).~~	No similar action.
MA-MR-22: For underground coal mining operations on existing leases: In PHMA, unless required for technical or safety reasons, do not authorize new appurtenant surface facilities for existing underground mining. If new appurtenant surface facilities associated the existing mine leases cannot be located outside of PHMA, collocate them with any existing disturbed areas, if possible. If collocation is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards/requirements, as identified by Mine Safety and Health Administration mine-plan approval process, and locate the facilities in an area least harmful to GRSG habitat based on vegetation, topography, or other habitat features.	No changes made.	**MA-MR-22:** For underground coal mining operations on existing leases: In PHMA, unless required for technical or safety reasons, do not authorize new appurtenant surface facilities for existing underground mining. If new appurtenant surface facilities associated the existing mine leases cannot be located outside of PHMA, collocate them with any existing disturbed areas, if possible. If collocation is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards/requirements, as identified by Mine Safety and Health Administration mine-plan approval process, and locate the facilities in an area least harmful to GRSG habitat based on vegetation, topography, or other habitat features.
MA-MR-23: For coal mining operations on existing leases: In GHMA, new disturbances could be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.	No changes made.	**MA-MR-23:** For coal mining operations on existing leases: In GHMA, new disturbances could be considered if consistent with the pertinent management for discretionary activities described in MA-SSS-5.
Mineral Split-Estate	***Mineral Split-Estate***	***Mineral Split-Estate***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-MR-24: Where the federal government manages the mineral estate in PHMA and GHMA, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-	**MA-MR-24:** Where the federal government manages the mineral estate in PHMA ~~and GHMA~~, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-	**MA-MR-24:** Where the federal government manages the mineral estate in PHMA, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered

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administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner. Where the federal government manages the surface and the mineral estate is in non-federal ownership in PHMA and GHMA, apply appropriate surface use conditions of approval, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner. Where the federal government manages the surface and the mineral estate is in non-federal ownership in PHMA ~~and GHMA~~, apply appropriate surface use conditions of approval, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner. Where the federal government manages the surface and the mineral estate is in non-federal ownership in PHMA, apply appropriate surface use conditions of approval, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.
RENEWABLE ENERGY (WIND AND SOLAR) (RE)	***RENEWABLE ENERGY (WIND AND SOLAR) (RE)***	***RENEWABLE ENERGY (WIND AND SOLAR) (RE)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
Wind Energy Development **MA-RE-1:** PHMA will be designated as exclusion areas for wind energy development (2,026,400 acres) (Figure 2-8, Wind [Appendix A]). Do not site wind energy development in opportunity areas within 5 miles from occupied GRSG leks that are in PHMA. Manage wind energy development in GHMA as follows: • Open – 484,900 acres • Avoided – 0 acres • Excluded – 17,600 acres New wind ROW authorizations can be allowed in GHMA if they apply the pertinent management for discretionary activities identified in MA-SSS-5. *Solar Energy Development* The BLM's Approved Resource Management Plan Amendments/ROD for Solar Energy Development	*Wind Energy Development* **MA-RE-1:** PHMA will be designated as exclusion areas for wind energy development (2,026,400 acres) (Figure 2-8, Wind [Appendix A]). Avoid siting ~~Do not site~~ wind energy development in opportunity areas within the buffer distances identified in Appendix B ~~5 miles~~ from occupied GRSG leks that are in PHMA, if the lek buffer analysis as identified in Appendix B shows that siting wind energy development in opportunities areas will impact lek persistence within PHMA. ~~Manage wind energy development in GHMA as follows:~~ • ~~Open – 484,900 acres~~ • ~~Avoided – 0 acres~~ • ~~Excluded – 17,600 acres~~ ~~New wind ROW authorizations can be allowed in GHMA if they apply the pertinent management for discretionary activities identified in MA-SSS-5.~~	*Wind Energy Development* **MA-RE-1:** PHMA will be designated as exclusion areas for wind energy development (2,026,400 acres) (Figure 2-8, Wind [Appendix A]). Avoid siting wind energy development in opportunity areas within the buffer distances identified in Appendix B from occupied GRSG leks that are in PHMA, if the lek buffer analysis as identified in Appendix B shows that siting wind energy development in opportunities areas will impact lek persistence within PHMA. *Solar Energy Development* The BLM's Approved Resource Management Plan Amendments/ROD for Solar Energy Development in Six Southwestern States (October 2012) excluded all GRSG occupied habitat to new utility-scale solar development. Because the existing land use plans already exclude solar development in GRSG habitat; this plan amendment process does not need to make additional decisions related to

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in Six Southwestern States (October 2012) excluded all GRSG occupied habitat to new utility-scale solar development. Because the existing land use plans already exclude solar development in GRSG habitat; this plan amendment process does not need to make additional decisions related to solar development (Figure 2-9, Solar [Appendix A]).	*Solar Energy Development* The BLM's Approved Resource Management Plan Amendments/ROD for Solar Energy Development in Six Southwestern States (October 2012) excluded all GRSG occupied habitat to new utility-scale solar development. Because the existing land use plans already exclude solar development in GRSG habitat; this plan amendment process does not need to make additional decisions related to solar development (Figure 2-9, Solar [Appendix A]).	solar development (Figure 2-9, Solar [Appendix A]).
LANDS AND REALTY (LR)	***LANDS AND REALTY (LR)***	***LANDS AND REALTY (LR)***
Objectives:	**Objectives:**	**Objectives:**
Objective LR-1: Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.	No changes made.	**Objective LR-1:** Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-LR-1: In PHMA, manage lands ROWs, permits, and leases as follows (Figure 2-11, Rights-of-Way [Appendix A]): • Open: 18,900 acres (associated with designated above-ground ROW corridors) • Avoided: 1,997,000 acres • Excluded: 10,500 acres	No changes made.	**MA-LR-1:** In PHMA, manage lands ROWs, permits, and leases as follows (Figure 2-11, Rights-of-Way [Appendix A]): • Open: 18,900 acres (associated with designated above-ground ROW corridors) • Avoided: 1,997,000 acres • Excluded: 10,500 acres
MA-LR-2: Linear and Site-Type ROWs, Permits, and Leases (excluding wind and solar) PHMA will be avoidance areas for new linear and site type ROWs, permits, and leases except for within ROW corridors designated for aboveground use. Placement of new ROWs, permits, and leases in PHMA shall be avoided if at all possible. Where avoidance is not possible in PHMA, placement of a new ROW/permit/lease can be allowed if it applies	**MA-LR-2:** Linear and Site-Type ROWs, Permits, and Leases (excluding wind and solar) PHMA will be avoidance areas for new linear and site type ROWs, permits, and leases except for within ROW corridors designated for aboveground use. Placement of new ROWs, permits, and leases in PHMA shall be avoided if at all possible. Where avoidance is not possible in PHMA, placement of a new ROW/permit/lease can be allowed if it applies	**MA-LR-2:** Linear and Site-Type ROWs, Permits, and Leases (excluding wind and solar) PHMA will be avoidance areas for new linear and site type ROWs, permits, and leases except for within ROW corridors designated for aboveground use. Placement of new ROWs, permits, and leases in PHMA shall be avoided if at all possible. Where avoidance is not possible in PHMA, placement of a new ROW/permit/lease can be allowed if it applies

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the management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, tall structure restrictions, seasonal restrictions, and applicable RDFs). In PHMA, lands ROWs, permits and leases that cannot be avoided shall be located in areas that minimize the effect on the GRSG population (e.g., non-habitat areas, least suitable habitat, collocated with existing disturbances). In PHMA, new proposals for power lines, access roads, pump storage, and other hydroelectric facilities licensed by Federal Energy Regulatory Commission will be subject to all GRSG ROW avoidance allocations and pertinent management for discretionary activities in MA-SSS-3. Outside PHMA, portions of opportunity areas within 4-miles of a lek that is located in PHMA will be avoidance areas for new ROWs, permits and leases, applying stipulations for noise and tall structures. In addition to the above requirements, the subsequent conditions will apply to specific types of ROW authorizations: <u>Transmission Lines</u> PHMA are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this plan, including the RDFs and avoidance criteria presented in MA-SSS-03. The BLM is currently processing an application for TransWest Express	the management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, tall structure restrictions, seasonal restrictions, and applicable RDFs). In PHMA, lands ROWs, permits and leases that cannot be avoided shall be located in areas that minimize the effect on the GRSG population (e.g., non-habitat areas, least suitable habitat, collocated with existing disturbances). In PHMA, new proposals for power lines, access roads, pump storage, and other hydroelectric facilities licensed by Federal Energy Regulatory Commission will be subject to all GRSG ROW avoidance allocations and pertinent management for discretionary activities in MA-SSS-3. Outside PHMA, portions of opportunity areas within 4-miles of a lek that is located in PHMA will be avoidance areas for new ROWs, permits and leases, applying stipulations for noise and tall structures. In addition to the above requirements, the subsequent conditions will apply to specific types of ROW authorizations: <u>Transmission Lines</u> PHMA are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this plan, including the RDFs and avoidance criteria presented in MA-SSS-03. The BLM is currently processing an application for TransWest Express	the management for discretionary activities in PHMA identified in MA-SSS-3 (e.g., mitigation, disturbance cap, buffers, tall structure restrictions, seasonal restrictions, and applicable RDFs). In PHMA, lands ROWs, permits and leases that cannot be avoided shall be located in areas that minimize the effect on the GRSG population (e.g., non-habitat areas, least suitable habitat, collocated with existing disturbances). In PHMA, new proposals for power lines, access roads, pump storage, and other hydroelectric facilities licensed by Federal Energy Regulatory Commission will be subject to all GRSG ROW avoidance allocations and pertinent management for discretionary activities in MA-SSS-3. Outside PHMA, portions of opportunity areas within 4-miles of a lek that is located in PHMA will be avoidance areas for new ROWs, permits and leases, applying stipulations for noise and tall structures. In addition to the above requirements, the subsequent conditions will apply to specific types of ROW authorizations: <u>Transmission Lines</u> PHMA are designated as avoidance areas for high voltage transmission line ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this plan, including the RDFs and avoidance criteria presented in MA-SSS-03. The BLM is currently processing an application for TransWest Express

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(including those portions of Energy Gateway South that are collocated) 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. In PHMA, high voltage transmission lines (100 kilovolt or greater) will be avoided if possible. If avoidance is not possible, they will be placed in designated corridors where technically feasible. Where not technically feasible, lines should be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG. New ROWs constructed adjacent to existing infrastructure will be constructed as close as technically feasible to existing infrastructure to limit disturbance to the smallest footprint. In PHMA outside of designated corridors, new transmission lines must be buried where technically feasible. Where burying transmission lines is not technically feasible: • new transmission lines must be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG; and • they will be subject to GRSG ROW avoidance criteria described above. In PHMA, if an existing transmission line is being upgraded to a higher voltage transmission line outside an existing corridor: • the existing transmission line must be removed within a reasonable amount of time after the new line is installed and energized; and	(including those portions of Energy Gateway South that are collocated) 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. In PHMA, high voltage transmission lines (100 kilovolt or greater) will be avoided if possible. If avoidance is not possible, they will be placed in designated corridors where technically feasible. Where not technically feasible, lines should be located adjacent to existing infrastructure, unless using a different alignment or construction method (e.g., burial) better minimizes impacts on GRSG. New ROWs constructed adjacent to existing infrastructure will be constructed as close as technically feasible to existing infrastructure to limit disturbance to the smallest footprint. ~~In PHMA outside of designated corridors, new transmission lines must be buried where technically feasible. Where burying transmission lines is not technically feasible:~~ • ~~new transmission lines must be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG; and~~ • ~~they will be subject to GRSG ROW avoidance criteria described above.~~ In PHMA, if an existing transmission line is being upgraded to a higher voltage transmission line outside an existing corridor: • the existing transmission line must be removed within a reasonable amount of time after the new line is installed and energized; and	(including those portions of Energy Gateway South that are collocated) 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. In PHMA, high voltage transmission lines (100 kilovolt or greater) will be avoided if possible. If avoidance is not possible, they will be placed in designated corridors where technically feasible. Where not technically feasible, lines should be located adjacent to existing infrastructure, unless using a different alignment or construction method (e.g., burial) better minimizes impacts on GRSG. New ROWs constructed adjacent to existing infrastructure will be constructed as close as technically feasible to existing infrastructure to limit disturbance to the smallest footprint. In PHMA, if an existing transmission line is being upgraded to a higher voltage transmission line outside an existing corridor: • the existing transmission line must be removed within a reasonable amount of time after the new line is installed and energized; and • the new line must be constructed in the same alignment as the existing line unless an alternate route will benefit GRSG or GRSG habitat. In PHMA, where existing guy wires are determined to have a negative impact on GRSG or its habitat, they shall be removed or appropriately marked with bird flight diverters to make them more visible to GRSG in flight.

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• the new line must be constructed in the same alignment as the existing line unless an alternate route will benefit GRSG or GRSG habitat. In PHMA, where existing guy wires are determined to have a negative impact on GRSG or its habitat, they shall be removed or appropriately marked with bird flight diverters to make them more visible to GRSG in flight. <u>Pipelines</u> In PHMA, major pipelines (greater than 24 inches) that cannot avoid PHMA will be placed in designated corridors where technically feasible. Where not technically feasible, pipelines shall be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG. <u>Communication Sites</u> In PHMA, new communication towers that cannot avoid PHMA must be located, where technically feasible, within an existing communication site. New sites will be considered where necessary for public safety.	• the new line must be constructed in the same alignment as the existing line unless an alternate route will benefit GRSG or GRSG habitat. In PHMA, where existing guy wires are determined to have a negative impact on GRSG or its habitat, they shall be removed or appropriately marked with bird flight diverters to make them more visible to GRSG in flight. <u>Pipelines</u> In PHMA, major pipelines (greater than 24 inches) that cannot avoid PHMA will be placed in designated corridors where technically feasible. Where not technically feasible, pipelines shall be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG. <u>Communication Sites</u> In PHMA, new communication towers that cannot avoid PHMA must be located, where technically feasible, within an existing communication site. New sites will be considered where necessary for public safety.	<u>Pipelines</u> In PHMA, major pipelines (greater than 24 inches) that cannot avoid PHMA will be placed in designated corridors where technically feasible. Where not technically feasible, pipelines shall be located adjacent to existing infrastructure, unless using a different alignment better minimizes impacts on GRSG. <u>Communication Sites</u> In PHMA, new communication towers that cannot avoid PHMA must be located, where technically feasible, within an existing communication site. New sites will be considered where necessary for public safety.
MA-LR-3: <u>Road ROWs</u> In PHMA, new road ROWs will be authorized when necessary for public safety, administrative access, or subject to valid existing rights. If the new ROW is necessary for public safety, administrative access, or subject to valid existing rights and creates new surface disturbance, then avoid, minimize, and compensate for the impacts. In PHMA, limit route construction to realignments of existing ROWs if the realignment maintains or	No changes made.	**MA-LR-3:** <u>Road ROWs</u> In PHMA, new road ROWs will be authorized when necessary for public safety, administrative access, or subject to valid existing rights. If the new ROW is necessary for public safety, administrative access, or subject to valid existing rights and creates new surface disturbance, then avoid, minimize, and compensate for the impacts. In PHMA, limit route construction to realignments of existing ROWs if the realignment maintains or

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enhances GRSG habitat, eliminates the need to authorize a new ROW to construct a new road, or is necessary for public safety or public need. In PHMA, subject to valid existing rights, new road ROWs/easements will be authorized only when necessary for public safety or administrative access or, if it creates no new or de minimis new surface disturbance. In PHMA, collocate new ROWs as close as technically possible to existing ROWs or where it best minimizes GRSG impacts. Use existing roads, or realignments, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary. In PHMA, existing Federal Highway Act Appropriation ROWs will be managed as valid existing rights, and new Federal Highway Act ROWs will continue to be considered and subject to all GRSG ROW plan restrictions.		enhances GRSG habitat, eliminates the need to authorize a new ROW to construct a new road, or is necessary for public safety or public need. In PHMA, subject to valid existing rights, new road ROWs/easements will be authorized only when necessary for public safety or administrative access or, if it creates no new or de minimis new surface disturbance. In PHMA, collocate new ROWs as close as technically possible to existing ROWs or where it best minimizes GRSG impacts. Use existing roads, or realignments, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary. In PHMA, existing Federal Highway Act Appropriation ROWs will be managed as valid existing rights, and new Federal Highway Act ROWs will continue to be considered and subject to all GRSG ROW plan restrictions.
MA-LR-4: In PHMA, designate ROW corridors as identified on Figure 2-10, Designated Utility Corridors [Appendix A]: • Retain 17,600 acres of existing designated ROW corridor • Retain 44,300 acres of existing designated ROW corridor, but stipulate new developments be limited to underground use only • Undesignate 18,200 acres of existing designated ROW corridor	No changes made.	**MA-LR-4:** In PHMA, designate ROW corridors as identified on Figure 2-10, Designated Utility Corridors [Appendix A]: • Retain 17,600 acres of existing designated ROW corridor • Retain 44,300 acres of existing designated ROW corridor, but stipulate new developments be limited to underground use only • Undesignate 18,200 acres of existing designated ROW corridor

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In PHMA, placement of new ROWs in corridors should be avoided if at all possible. Where avoidance is not possible: • Allow new linear ROWs in designated corridors. • New ROWs constructed in designated corridors will be constructed as close as technically feasible to existing linear ROW infrastructure to limit disturbance to the smallest footprint, unless using a different alignment better minimizes impacts on GRSG. • Apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3.		In PHMA, placement of new ROWs in corridors should be avoided if at all possible. Where avoidance is not possible: • Allow new linear ROWs in designated corridors. • New ROWs constructed in designated corridors will be constructed as close as technically feasible to existing linear ROW infrastructure to limit disturbance to the smallest footprint, unless using a different alignment better minimizes impacts on GRSG. • Apply the pertinent management for discretionary activities in PHMA identified in MA-SSS-3.
MA-LR-5: In PHMA, when a ROW grant expires, is relinquished, or terminated, required rehabilitation as a term and condition of the FLPMA ROW grant, in compliance with 43 CFR, Part 2805.12(i). • the lease holder will be required to restore the site by removing overhead lines and other infrastructure, and; • eliminate existing raven nesting opportunities created by anthropogenic development on public lands (e.g., remove power line and communication facilities no longer in service). In PHMA, during renewal, amendment or reauthorization of existing permits, work with existing ROW holders to mitigate impacts of existing ROW infrastructure. Where technically feasible, require ROW holders to bury or relocate existing power lines to minimize long-term impacts on GRSG habitat. Where the potential long-term impacts of relocating or burying the line will be greater than the existing impacts, do not pursue the mitigation. If relocation or burying is not	**MA-LR-5:** In PHMA, when a ROW grant expires, is relinquished, or terminated, required rehabilitation as a term and condition of the FLPMA ROW grant, in compliance with 43 CFR, Part 2805.12(i). • the lease holder will be required to restore the site by removing overhead lines and other infrastructure, and; • eliminate existing raven nesting opportunities created by anthropogenic development on public lands (e.g., remove power line and communication facilities no longer in service). In PHMA, during renewal, amendment or reauthorization of existing permits, work with existing ROW holders to mitigate impacts of existing ROW infrastructure on GRSG (e.g., predator deterrents, maintenance schedules, relocation, burial, etc.). ~~Where technically feasible, require ROW holders to bury or relocate existing power lines to minimize long-term impacts on GRSG habitat.~~ Where the potential long-term impacts of mitigation ~~relocating or burying the line~~	**MA-LR-5:** In PHMA, when a ROW grant expires, is relinquished, or terminated, required rehabilitation as a term and condition of the FLPMA ROW grant, in compliance with 43 CFR, Part 2805.12(i). • the lease holder will be required to restore the site by removing overhead lines and other infrastructure, and; • eliminate existing raven nesting opportunities created by anthropogenic development on public lands (e.g., remove power line and communication facilities no longer in service). In PHMA, during renewal, amendment or reauthorization of existing permits, work with existing ROW holders to mitigate impacts of existing ROW infrastructure on GRSG (e.g., predator deterrents, maintenance schedules, relocation, burial, etc.). Where the potential long-term impacts of mitigation will be greater than the existing impacts, do not pursue the mitigation. If relocation or burying is not feasible or will result in severe short-term or greater long-term impacts on

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feasible or will result in severe short-term or greater long-term impacts on GRSG habitat, incorporate additional terms and conditions in the ROW authorization for protection of GRSG habitat. Work with ROW holders to retrofit existing towers with perch deterrents or other anti-perching devices, where appropriate, to limit GRSG predation.	will be greater than the existing impacts, do not pursue the mitigation. If relocation or burying is not feasible or will result in severe short-term or greater long-term impacts on GRSG habitat, incorporate additional terms and conditions in the ROW authorization for protection of GRSG habitat. Work with ROW holders to retrofit existing towers with perch deterrents or other anti-perching devices, where appropriate, to limit GRSG predation.	GRSG habitat, incorporate additional terms and conditions in the ROW authorization for protection of GRSG habitat. Work with ROW holders to retrofit existing towers with perch deterrents or other anti-perching devices, where appropriate, to limit GRSG predation.
MA-LR-6: In PHMA, where existing leases or ROWs have had some level of development (road, fence, well, etc.) and are no longer in use, remove the features and restore the habitat.	No changes made.	**MA-LR-6:** In PHMA, where existing leases or ROWs have had some level of development (road, fence, well, etc.) and are no longer in use, remove the features and restore the habitat.
MA-LR-7: In GHMA, manage ROWs, permits, and leases as follows (Figure 2-11): • Open: 484,900 acres • Avoided: 0 acres • Excluded: 17,600 acres New ROWs (including permits and leases) authorizations will be allowed if they apply the pertinent management for discretionary activities in GHMA identified in MA-SSS-5.	~~**MA-LR-7:** In GHMA, manage ROWs, permits, and leases as follows (Figure 2-11):~~ ~~• Open: 484,900 acres~~ ~~• Avoided: 0 acres~~ ~~• Excluded: 17,600 acres~~ ~~New ROWs (including permits and leases) authorizations will be allowed if they apply the pertinent management for discretionary activities in GHMA identified in MA-SSS-5.~~	No similar action.
MA-LR-8: In GHMA, retain 74,700 acres of designated ROW corridors as identified on Figure 2-10.	~~**MA-LR-8:** In GHMA, retain 74,700 acres of designated ROW corridors as identified on Figure 2-10.~~	No similar action.
Land Tenure	***Land Tenure***	***Land Tenure***
MA-LR-9: Lands classified as PHMA and GHMA for GRSG will be retained in federal management (Figure 2-12, Land Tenure [Appendix A]) unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the GRSG or (2) the agency	**MA-LR-9:** Lands classified as PHMA ~~and GHMA~~ for GRSG will be retained in federal management (Figure 2-12, Land Tenure [Appendix A]) unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will improve the condition of GRSG habitat ~~provide a net~~	**MA-LR-9:** Lands classified as PHMA for GRSG will be retained in federal management (Figure 2-12, Land Tenure [Appendix A]) unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will improve the condition of GRSG habitat or (2) the agency can

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can demonstrate that the disposal of the lands, including land exchanges, will have no direct or indirect adverse impact on conservation of the GRSG.	~~conservation gain to the GRSG~~ or (2) the agency can demonstrate that the disposal of the lands, including land exchanges, will not compromise the persistence of GRSG populations within a PHMA ~~have no direct or indirect adverse impact on conservation of the GRSG~~.	demonstrate that the disposal of the lands, including land exchanges, will not compromise the persistence of GRSG populations within a PHMA.
MA-LR-10: In PHMA, where suitable conservation actions cannot be achieved, seek to acquire state and private lands with intact federal mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore GRSG habitat.	No changes made.	**MA-LR-10:** In PHMA, where suitable conservation actions cannot be achieved, seek to acquire state and private lands with intact federal mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore GRSG habitat.
Recommended Withdrawals	***Recommended Withdrawals***	***Recommended Withdrawals***
MA-LR-11: SFA will be recommended for withdrawal from the Mining Law of 1872 (as amended), subject to valid existing rights. Other federal lands or non-federal lands with federal mineral interests within PHMA or GHMA that are not already withdrawn or recommended for withdrawal will be available for locatable mineral entry (Figure 2-5).	~~**MA-LR-11:** SFA will be recommended for withdrawal from the Mining Law of 1872 (as amended), subject to valid existing rights. Other f~~ Federal lands or non-federal lands with federal mineral interests within PHMA ~~or GHMA~~ that are not already withdrawn or recommended for withdrawal will be available for locatable mineral entry (Figure 2-5).	**MA-LR-11:** Federal lands or non-federal lands with federal mineral interests within PHMA that are not already withdrawn or recommended for withdrawal will be available for locatable mineral entry (Figure 2-5).
RECREATION (REC)	***RECREATION (REC)***	***RECREATION (REC)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-REC-1: In PHMA, only allow BLM SRPs that have neutral or beneficial effect on GRSG and their habitat. Evaluate existing SRPs for adverse effect on GRSG and their habitat. Modify or cancel the permit, as appropriate and where possible to avoid or mitigate effects of habitat alterations or other physical disturbances to GRSG (e.g., breeding, brood-rearing, migration patterns, or winter survival). Identify permit stipulations that require the permittee to implement any necessary habitat restoration activities after SRP events. Restoration activities must be consistent with GRSG habitat objectives.	No changes made.	**MA-REC-1**: In PHMA, only allow BLM SRPs that have neutral or beneficial effect on GRSG and their habitat. Evaluate existing SRPs for adverse effect on GRSG and their habitat. Modify or cancel the permit, as appropriate and where possible to avoid or mitigate effects of habitat alterations or other physical disturbances to GRSG (e.g., breeding, brood-rearing, migration patterns, or winter survival). Identify permit stipulations that require the permittee to implement any necessary habitat restoration activities after SRP events. Restoration activities must be consistent with GRSG habitat objectives.

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MA-REC-2: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trailheads, staging areas) unless the development will have a net conservation gain to GRSG 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.	No changes made.	**MA-REC-2:** In PHMA, do not construct new recreation facilities (e.g., campgrounds, trailheads, staging areas) unless the development will have a net conservation gain to GRSG 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.
TRAVEL AND TRANSPORTATION MANAGEMENT (TTM)	***TRAVEL AND TRANSPORTATION MANAGEMENT (TTM)***	***TRAVEL AND TRANSPORTATION MANAGEMENT (TTM)***
Management Actions (MA):	**Management Actions (MA):**	**Management Actions (MA):**
MA-TTM-1: Manage off-highway vehicle (OHV) use in GRSG habitat as follows (Figure 2-13, Trails and Travel Management [Appendix A]): • Open to cross-country use: 525 acres (one area each in Parker Mountain and Uintah Population Areas) • Limited to existing routes: 1,274,700 acres • Limited to designated routes: 1,220,500 acres • Closed: 33,200 acres	**MA-TTM-1:** Manage off-highway vehicle (OHV) use in GRSG habitat as follows (Figure 2-13, Trails and Travel Management [Appendix A]): • Open to cross-country use: 525 acres (one area each in Parker Mountain and Uintah Population Areas); two areas outside of PHMA in the Sheeprocks Population Area, associated with 5-Mile Pass (6,320 acres) and Little Sahara Sand Dunes (7,900 acres) • Limited to existing routes: 1,260,500 ~~1,274,700~~ acres • Limited to designated routes: 1,220,500 acres • Closed: 33,200 acres	**MA-TTM-1:** Manage off-highway vehicle (OHV) use in GRSG habitat as follows (Figure 2-13, Trails and Travel Management [Appendix A]): • Open to cross-country use: 525 acres (one area each in Parker Mountain and Uintah Population Areas); two areas outside of PHMA in the Sheeprocks Population Area, associated with 5-Mile Pass (6,320 acres) and Little Sahara Sand Dunes (7,900 acres) • Limited to existing routes: 1,260,500 acres • Limited to designated routes: 1,220,500 acres • Closed: 33,200 acres
MA-TTM-2: PHMA and GHMA that do not have designated routes in a Travel Management Plan will be managed as limited to existing routes until a Travel Management Plan designates routes (unless they are already designated as limited to designated routes or closed to OHV use). OHV Areas designated as "closed" will be managed as areas closed to motorized vehicles. OHV Areas designated as "limited existing" within PHMA will be managed as "limited to existing roads, primitive roads, and trails" until the completion of an implementation level travel plan. Individual route designations will occur during subsequent	**MA-TTM-2:** PHMA ~~and GHMA~~ that does not have designated routes in a Travel Management Plan will be managed as limited to existing routes until a Travel Management Plan designates routes (unless they are already designated as limited to designated routes or closed to OHV use). Two areas that were GHMA previously will remain limited to existing routes, though they would no longer be GHMA: 7,400 acres in the Bald Hills area and 13,500 acres in the Fillmore Field Office portions of Sheeprocks area, east of Highway 6. The other two areas of former GHMA (6,320	**MA-TTM-2:** PHMA that does not have designated routes in a Travel Management Plan will be managed as limited to existing routes until a Travel Management Plan designates routes (unless they are already designated as limited to designated routes or closed to OHV use). Two areas that were GHMA previously will remain limited to existing routes, though they would no longer be GHMA: 7,400 acres in the Bald Hills area and 13,500 acres in the Fillmore Field Office portions of Sheeprocks area, east of Highway 6. The other two areas of former GHMA (6,320

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implementation level travel management planning efforts. Upon the completion of implementation level travel management plans OHV areas designated as "Limited" will automatically transition to "limited to designated roads, primitive roads and trails."	acres in the 5-Mile Pass area and 7,900 acres in the Little Sahara Recreation Area) will also remain limited until the BLM completes the Section 106 OHV area designation process found in the *Programmatic Agreement among the Advisory Council on Historic Preservation, The Bureau of Land Management – Utah and the Utah State Historic Preservation Office regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings*. Under the Programmatic Agreement the BLM will identify an Area of Potential Effect, conduct an identification process, make a finding of effect, and if necessary, develop a historic properties treatment plan. Once these procedures are completed, the applicable portions of these areas will revert to being open to cross-country use, consistent with prior RMP OHV allocations. OHV Areas designated as "closed" will be managed as areas closed to motorized vehicles. OHV Areas designated as "limited existing" within PHMA will be managed as "limited to existing roads, primitive roads, and trails" until the completion of an implementation level travel plan. Individual route designations will occur during subsequent implementation level travel management planning efforts. Upon the completion of implementation level travel management plans OHV areas designated as "Limited" will automatically transition to "limited to designated roads, primitive roads and trails."	acres in the 5-Mile Pass area and 7,900 acres in the Little Sahara Recreation Area) will also remain limited until the BLM completes the Section 106 OHV area designation process found in the *Programmatic Agreement among the Advisory Council on Historic Preservation, The Bureau of Land Management – Utah and the Utah State Historic Preservation Office regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings*. Under the Programmatic Agreement the BLM will identify an Area of Potential Effect, conduct an identification process, make a finding of effect, and if necessary, develop a historic properties treatment plan. Once these procedures are completed, the applicable portions of these areas will revert to being open to cross-country use, consistent with prior RMP OHV allocations. OHV Areas designated as "closed" will be managed as areas closed to motorized vehicles. OHV Areas designated as "limited existing" within PHMA will be managed as "limited to existing roads, primitive roads, and trails" until the completion of an implementation level travel plan. Individual route designations will occur during subsequent implementation level travel management planning efforts. Upon the completion of implementation level travel management plans OHV areas designated as "Limited" will automatically transition to "limited to designated roads, primitive roads and trails."
MA-TTM-3: Implementation level travel planning efforts will be guided by the goals, objectives and guidelines outlined in the GRSG section, relevant national and Utah specific guidance as well as the following:	**MA-TTM-3:** Implementation level travel planning efforts will be guided by the goals, objectives and guidelines outlined in the GRSG section, relevant national and Utah specific guidance as well as the following:	**MA-TTM-3:** Implementation level travel planning efforts will be guided by the goals, objectives and guidelines outlined in the GRSG section, relevant national and Utah specific guidance as well as the following:

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• A timeline to complete travel planning efforts will be identified, prioritized and updated annually in all relevant planning areas to accelerate the accomplishment of: data collection, route evaluation and selection, and on the ground implementation efforts including signing, monitoring and rehabilitation. • During subsequent travel management planning, consultation "with interested user groups, federal, state, county, and local agencies, local landowners, and other parties in a manner that provides an opportunity for the public to express itself and have its views given consideration." Consequently, a public outreach plan to fully engage all interested stakeholders will be incorporated into future travel management plans. • Among other designation criteria from 43 CFR, Part 8342.1(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." • During subsequent travel management planning, all routes will undergo a route evaluation to determine its purpose and need and the potential resource and/or user conflicts from motorized travel. Where resource and/or user conflicts outweigh the purpose and need for the route, the route will be considered for closure or considered for relocation outside of sensitive GRSG habitat. • During subsequent travel planning, threats to GRSG and their habitat will be considered when evaluating route designations and/or closures.	• A timeline to complete travel planning efforts will be identified, prioritized and updated annually in all relevant planning areas to accelerate the accomplishment of: data collection, route evaluation and selection, and on the ground implementation efforts including signing, monitoring and rehabilitation. • During subsequent travel management planning, consultation "with interested user groups, federal, state, county, and local agencies, local landowners, and other parties in a manner that provides an opportunity for the public to express itself and have its views given consideration." Consequently, an ~~public~~ outreach plan to fully engage all interested stakeholders, including state, local, and tribal governments, will be incorporated into future travel management plans. • Among other designation criteria from 43 CFR, Part 8342.1(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." • ~~During subsequent travel management planning, all routes will undergo a route evaluation to determine its purpose and need and the potential resource and/or user conflicts from motorized travel. Where resource and/or user conflicts outweigh the purpose and need for the route, the route will be considered for closure or considered for relocation outside of sensitive GRSG habitat.~~ • ~~During subsequent travel planning, threats to GRSG and their habitat will be considered when evaluating route designations and/or closures.~~	• A timeline to complete travel planning efforts will be identified, prioritized and updated annually in all relevant planning areas to accelerate the accomplishment of: data collection, route evaluation and selection, and on the ground implementation efforts including signing, monitoring and rehabilitation. • During subsequent travel management planning, consultation "with interested user groups, federal, state, county, and local agencies, local landowners, and other parties in a manner that provides an opportunity for the public to express itself and have its views given consideration." Consequently, an outreach plan to fully engage all interested stakeholders, including state, local, and tribal governments, will be incorporated into future travel management plans. • Among other designation criteria from 43 CFR, Part 8342.1(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."

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
• During subsequent travel management planning, routes that do not have a purpose or need will be considered for closure. • During subsequent travel management, planning, routes that are duplicative, parallel, or redundant will be considered for closure. • During subsequent travel management planning, seasonal restrictions on OHV use will be considered in important seasonal habitats where OHV use is a threat. During subsequent travel management planning, consider limiting over snow vehicles designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow to designated routes or consider seasonal closures in GRSG wintering areas from November 1 through March 31. • During subsequent travel management planning, routes not required for public access or recreation with a current administrative/agency purpose or need will be evaluated for administrative access only. • During subsequent travel management planning, consider prioritizing restoration of routes not designated in a Travel Management Plan. • During subsequent travel management plan implementation, consider using seed mixes or transplant techniques that will maintain or enhance GRSG habitat when rehabilitating linear disturbances. • During subsequent travel management plan implementation, consider scheduling road maintenance to avoid disturbance during sensitive periods and times to the extent practicable. Consider using time of day limits (e.g., no use between 6:00 pm and 9:00 am) to	• ~~During subsequent travel management planning, routes that do not have a purpose or need will be considered for closure.~~ • ~~During subsequent travel management, planning, routes that are duplicative, parallel, or redundant will be considered for closure.~~ • ~~During subsequent travel management planning, seasonal restrictions on OHV use will be considered in important seasonal habitats where OHV use is a threat. During subsequent travel management planning, consider limiting over snow vehicles designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow to designated routes or consider seasonal closures in GRSG wintering areas from November 1 through March 31.~~ • ~~During subsequent travel management planning, routes not required for public access or recreation with a current administrative/agency purpose or need will be evaluated for administrative access only.~~ • ~~During subsequent travel management planning, consider prioritizing restoration of routes not designated in a Travel Management Plan.~~ • ~~During subsequent travel management plan implementation, consider using seed mixes or transplant techniques that will maintain or enhance GRSG habitat when rehabilitating linear disturbances.~~ • ~~During subsequent travel management plan implementation, consider scheduling road maintenance to avoid disturbance during sensitive periods and times to the extent practicable. Consider using time of day limits (e.g., no use between 6:00 pm and 9:00 am) to~~	

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
reduce impacts on GRSG during breeding periods.	~~reduce impacts on GRSG during breeding periods.~~	
MA-TTM-4: In PHMA, complete transportation plans in accordance with National BLM Travel Management guidance, requiring the BLM to maintain a current action plan and planning schedule to most effectively target available resources. The following GRSG population areas are Utah's top priority areas to designate comprehensive travel plans: • Sheeprocks • Box Elder • Ibapah • Bald Hills • Rich • Hamlin Valley	No changes made.	**MA-TTM-4:** In PHMA, complete transportation plans in accordance with National BLM Travel Management guidance, requiring the BLM to maintain a current action plan and planning schedule to most effectively target available resources. The following GRSG population areas are Utah's top priority areas to designate comprehensive travel plans: • Sheeprocks • Box Elder • Ibapah • Bald Hills • Rich • Hamlin Valley
MA-TTM-5: In PHMA, travel systems will be managed with an emphasis on improving the sustainability of the travel network in a comprehensive manner to minimize impacts on GRSG, maintain motorist safety, and prevent unauthorized cross country travel while meeting access needs. To do so, it may be necessary to improve portions of existing routes, close existing routes or create new routes that meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning will be placed on having a neutral or positive effect on GRSG habitat.	No changes made.	**MA-TTM-5:** In PHMA, travel systems will be managed with an emphasis on improving the sustainability of the travel network in a comprehensive manner to minimize impacts on GRSG, maintain motorist safety, and prevent unauthorized cross country travel while meeting access needs. To do so, it may be necessary to improve portions of existing routes, close existing routes or create new routes that meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning will be placed on having a neutral or positive effect on GRSG habitat.
MA-TTM-6: In PHMA, when considering upgrade of existing routes that will change route category (BLM route categories: road, primitive road, or trail) or capacity, consider the larger transportation network while providing for protection of GRSG habitat.	~~**MA-TTM-6:** In PHMA, when considering upgrade of existing routes that will change route category (BLM route categories: road, primitive road, or trail) or capacity, consider the larger transportation network while providing for protection of GRSG habitat.~~	No similar action.

2015 BLM GRSG Approved RMP Amendment	Changes between 2015 and 2019 GRSG Management	2019 BLM GRSG Approved RMP Amendment
MA-TTM-7: In PHMA, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance. Apply additional effective mitigation necessary to offset the resulting loss of GRSG habitat. Plan for new routes in consideration of the larger transportation network objectives and needs while providing for protection of GRSG habitat.	No changes made.	**MA-TTM-7:** In PHMA, use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance. Apply additional effective mitigation necessary to offset the resulting loss of GRSG habitat. Plan for new routes in consideration of the larger transportation network objectives and needs while providing for protection of GRSG habitat.
MA-TTM-8: In PHMA, when reseeding roads, primitive roads and trails, use appropriate seed mixes and consider the use of transplanted sagebrush.	~~**MA-TTM-8:** In PHMA, when reseeding roads, primitive roads and trails, use appropriate seed mixes and consider the use of transplanted sagebrush.~~	No similar action.
MA-TTM-9: Develop an educational process to advise OHV users of the potential for conflict with GRSG.	No changes made.	**MA-TTM-9:** Develop an educational process to advise OHV users of the potential for conflict with GRSG.
MA-TTM-10: In PHMA and GHMA, 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); 43 CFR, subpart 8341 (Conditions of Use) and any applicable policies. 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 OHVs 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	**MA-TTM-10:** In PHMA ~~and GHMA~~, 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); 43 CFR, subpart 8341 (Conditions of Use) and any applicable policies. 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 OHVs 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	**MA-TTM-10:** In PHMA, 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); 43 CFR, subpart 8341 (Conditions of Use) and any applicable policies. 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 OHVs 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

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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 should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should 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.	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 should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should 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.	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 should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should 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.

1.8 PUBLIC INVOLVEMENT

The BLM land use planning activities are conducted in accordance with NEPA requirements, Council on Environmental Quality regulations, and Department of the Interior and BLM policies and procedures implementing NEPA. NEPA and associated laws, regulations, and policies require the BLM to seek public involvement early in and throughout the planning process. Public involvement and agency consultation and coordination, which have been at the heart of the planning process leading to this 2019 Approved RMPA, were achieved through Federal Register notices, public and informal meetings, individual contacts, media releases, planning bulletins, and the Utah Greater Sage-Grouse website: https://www.blm.gov/programs/fish-and-wildlife/sage-grouse.

As the BLM implements the 2019 Approved RMPA, the public may remain involved in several ways. The public will have the opportunity for involvement pursuant to NEPA as individual projects are reviewed and implemented. Additionally, the public may engage with any of the state-run local working groups who interact with BLM though comments and the regular meetings, which are open to all interested publics.

Several actions provide flexibility to local managers to permit surface-disturbing activities in potential Greater Sage-Grouse habitat, based on site-specific conditions and project design features. These activities could only be feasible if Greater Sage-Grouse would be protected as described in the 2019 Approved RMPA actions (e.g. the disturbance cap; ROW alignments; waivers, exceptions, and modifications; ROW alignments), which would be documented in project-specific environmental reviews.

1.9 PLAN IMPLEMENTATION

1.9.1 IMPLEMENTING THE PLAN

Implementation, after a BLM RMP or RMP amendment is approved, is a continuous and active process. Management decisions can be characterized as immediate or one-time future decisions.

Immediate decisions—These are the land use planning decisions that go into effect when the ROD is signed. They include goals, objectives, allowable uses, and management direction, such as the allocation of lands as open or closed for salable mineral sales, lands open with stipulations for oil and gas leasing, and areas designated for OHV use. These decisions require no additional analysis and guide future land management actions and subsequent site-specific implementation decisions in the planning area. Proposals for future actions, such as oil and gas leasing, land tenure adjustments, and other allocation-based actions will be reviewed against these 2019 Approved RMPA decisions to determine if the proposal conforms with the applicable plan objective and management action.

One-time future decisions—These types of decisions are those that are not implemented until additional decision-making and site-specific analysis is completed. Examples are implementation of the recommendations to withdraw lands from locatable mineral entry or development of travel management plans. Future one-time decisions require additional analysis and decision-making and are prioritized as part of the BLM budget process. Priorities for implementing one-time RMP decisions will be based on the following criteria:

- National BLM management direction
- Available resources

General implementation schedule of one-time decisions—Future decisions discussed in this 2019 Approved RMPA—will be implemented over a period of years, depending on budget and staff availability. After issuing the ROD and consistent with BLM policy, local offices will prepare implementation plans that establish tentative time frames for completing one-time decisions identified in the 2019 Approved RMPA. These actions require additional site-specific decision-making and analysis.

This schedule will assist BLM managers and staff in preparing budget requests and in scheduling work. However, the proposed schedule must be considered tentative and will be affected by future funding, nondiscretionary workloads, and by partner and external public cooperation. Yearly review of the plan will provide consistent tracking of accomplishments and information that can be used to develop annual budget requests to continue implementation.

1.9.2 MAINTAINING THE PLAN

The objectives and management actions in the 2019 Approved RMPA can be maintained as necessary to reflect minor changes in data. Plan maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan or clarifying previously approved decisions. For example, as described in MA-SSS-1, the PHMA boundaries were drawn at a coarse scale. As additional site-specific data becomes available, minor boundary adjustments could occur through plan maintenance. Larger boundary adjustments could require a plan amendment.

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, best management practices, and scientific principles. Where monitoring shows LUP actions or best management practices are not effective, plan maintenance or amendment may begin, as appropriate.

Plan maintenance will be documented in supporting records; it does not require formal public involvement, interagency coordination, or NEPA analysis.

1.9.3 CHANGING THE PLAN

The 2019 Approved RMPA may be changed, should conditions warrant, through a plan amendment or plan revision. A plan amendment may become necessary if major changes are needed or to consider a proposal or action that is not in conformance with the plan. The results of monitoring, evaluation of new data, or policy changes and changing public needs might also provide a need for a plan amendment. If several areas of the plan become outdated or otherwise obsolete, a plan revision may become necessary. Plan amendments and revisions are accomplished with public input and the appropriate level of environmental analysis conducted according to the Council on Environmental Quality procedures for implementing NEPA.

As new information becomes available about Greater Sage-Grouse habitat, including seasonal habitats, in coordination with the state wildlife agency and USFWS and based on best available scientific information,

the BLM may revise the Greater Sage-Grouse habitat management area maps and associated management decisions through plan maintenance or plan amendment/revision, as appropriate.

Minor adjustments to PHMA external boundaries, lek status, or seasonal habitat designations can be made. This would come about if BLM biologists determine, in coordination with the appropriate State of Utah agency and based on best scientific information, that site-specific conditions warrant such changes to more accurately depict existing or potential Greater Sage-Grouse habitat. The appropriate planning process (i.e., plan maintenance or plan amendment/revision) will be used, as determined on a case-by-case basis, considering site-specific issues.

1.10 Plan Evaluation and Monitoring

Evaluation is a process in which the plan and monitoring data are reviewed to see if management goals and objectives are being met and if management direction is sound. RMP evaluations determine if decisions are being implemented, if mitigation measures are satisfactory, if there are significant changes in the related plans of other entities, if there is new data of significance to the plan, and if decisions should be changed through amendment or revision. Monitoring data gathered over time is examined and used to draw conclusions on whether management actions are meeting stated objectives, and if not, why not. Conclusions are then used to make recommendations on whether to continue current management or to identify what changes need to be made in management practices to meet objectives.

The BLM will use RMP evaluations to determine if the decisions in the 2019 RMP Amendment, supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Evaluations will follow the protocols established by the BLM Land Use Planning Handbook (H-1601-1) or other appropriate guidance in effect at the time the evaluation is initiated. The monitoring framework for this Approved RMPA can be found in Appendix D of the 2015 Approved RMPA (which was not adjusted by this 2019 effort).

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. 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.

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. Also see *"right-of-way avoidance area"* definition.

Best Management Practices (BMPs). 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 that includes Greater Sage-Grouse Priority Habitat Management Areas that is used as the basis for comparative calculations to support evaluation of changes to habitat. In Utah, each BSU correlates to the Priority Habitat Management Area within a Population Area.

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

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.

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.

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

Habitat. An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle.

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.

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. An arena where male sage-grouse display for the purpose of gaining breeding territories and attracting females. These arenas are usually open areas with short vegetation within sagebrush habitats, usually on broad ridges, benches, or valley floors where visibility and hearing acuity are excellent.

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

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.

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 would require horizontal drilling from outside the boundaries of the NSO area.

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.

Priority Habitat Management Areas (PHMA). Areas prioritized for managing Greater Sage-Grouse populations (management is only applicable to actions on BLM-administered lands). These management areas include high-quality habitat, and may also include areas with poor quality, potential habitat, and non-habitat. PHMA largely coincides with the State of Utah's Sage-Grouse Management Areas (SGMAs). In the SGMA, the State identified areas of seasonal habitat, non-habitat, and opportunity areas, though management is focused on the habitat. PHMA are areas that include all the seasonal habitats for the corresponding Greater Sage-Grouse populations, including breeding, late brood-rearing, winter areas, and migration or connectivity corridors.

Required Design Features (RDFs). Means, measures, or practices intended to reduce or avoid adverse environmental impacts. A suite of features that would 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 would 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.

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.

Timing Limitation (TL). Areas identified for timing limitations, a moderate constraint, are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified timeframes. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive are not allowed. Intensive maintenance, such as workover wells, is not permitted. TLs can overlap spatially with no surface occupancy and controlled surface use, as well as with areas that have no other restriction.

Appendix A

Maps

Appendix A. Maps

All maps not identified in the above tables are carried forward with the allocations previously identified in the 2015 Approved Resource Management Plan Amendment (Approved RMPA). While allocations would not change, GHMA would no longer be identified on these maps. However, no allocations changed because of the removal of GHMA.

In addition, meeting a hard trigger in the Sheeprocks area resulted in some areas of GHMA changing to PHMA, with corresponding changes in allocation. This change occurred as part of implementing the adaptive management process identified in the 2015 Approved RMPA. These changes are carried forward in their entirety

Appendix A. Maps
(Map Changes between 2015 and 2019 GRSG Management)

Map Title	2019 BLM GRSG Approved RMP Amendment
Figure 2-1: Utah Habitat Management Alignment	• Modified to reflect the removal of GHMA and SFA allocations.
Figure 2-2: Utah GRSG Biologically Significant Units and Priority Habitat Management Areas	• Modified to reflect the removal of SFA allocations.
Figure 2-13: Utah Trails and Travel Management	• Allocations remain the same as identified in the 2015 Approved Resource Management Plan Amendment until further cultural surveys and procedures can be completed in the 5-Mile Pass and Little Sahara Recreation Areas. Once these are completed, the applicable portions of these areas will revert to being open to cross-country use, consistent with prior RMP OHV allocations.

Appendix A. Maps
(Map Additions between 2015 and 2019 GRSG Management)

Map Title	2019 BLM GRSG Approved RMP Amendment
Figure 3-1: Utah Greater Sage-Grouse Habitat Objectives Zones	• Included for reference
Figure 3-2: Utah Greater Sage-Grouse Breeding Habitat	• Included for reference
Figure 3-3: Utah Greater Sage-Grouse Summer Habitat	• Included for reference
Figure 3-4: Utah Greater Sage-Grouse Winter Habitat	• Included for reference

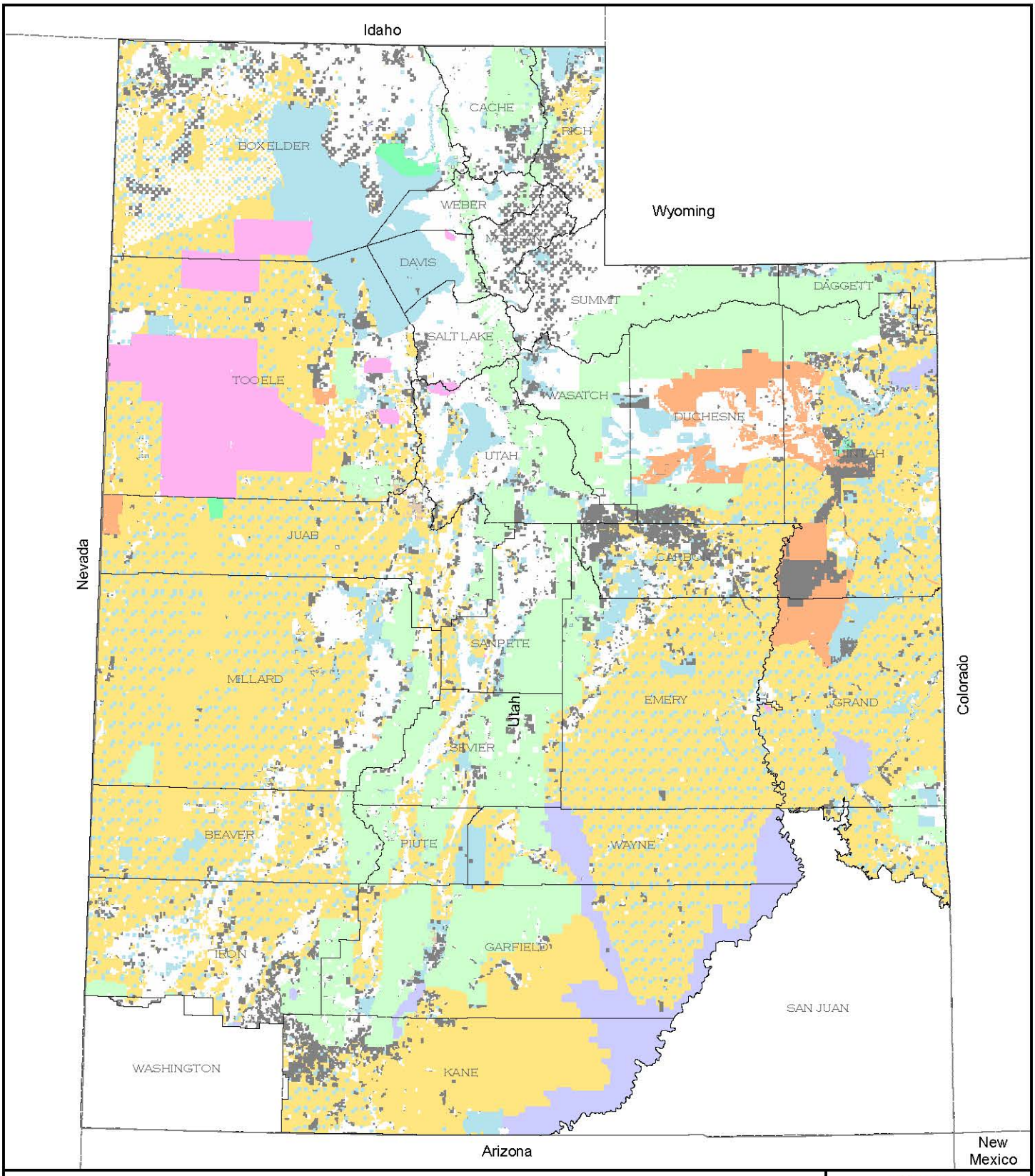


Figure 1-1: Utah Planning Area, Surface Management and Sub-Surface Estate

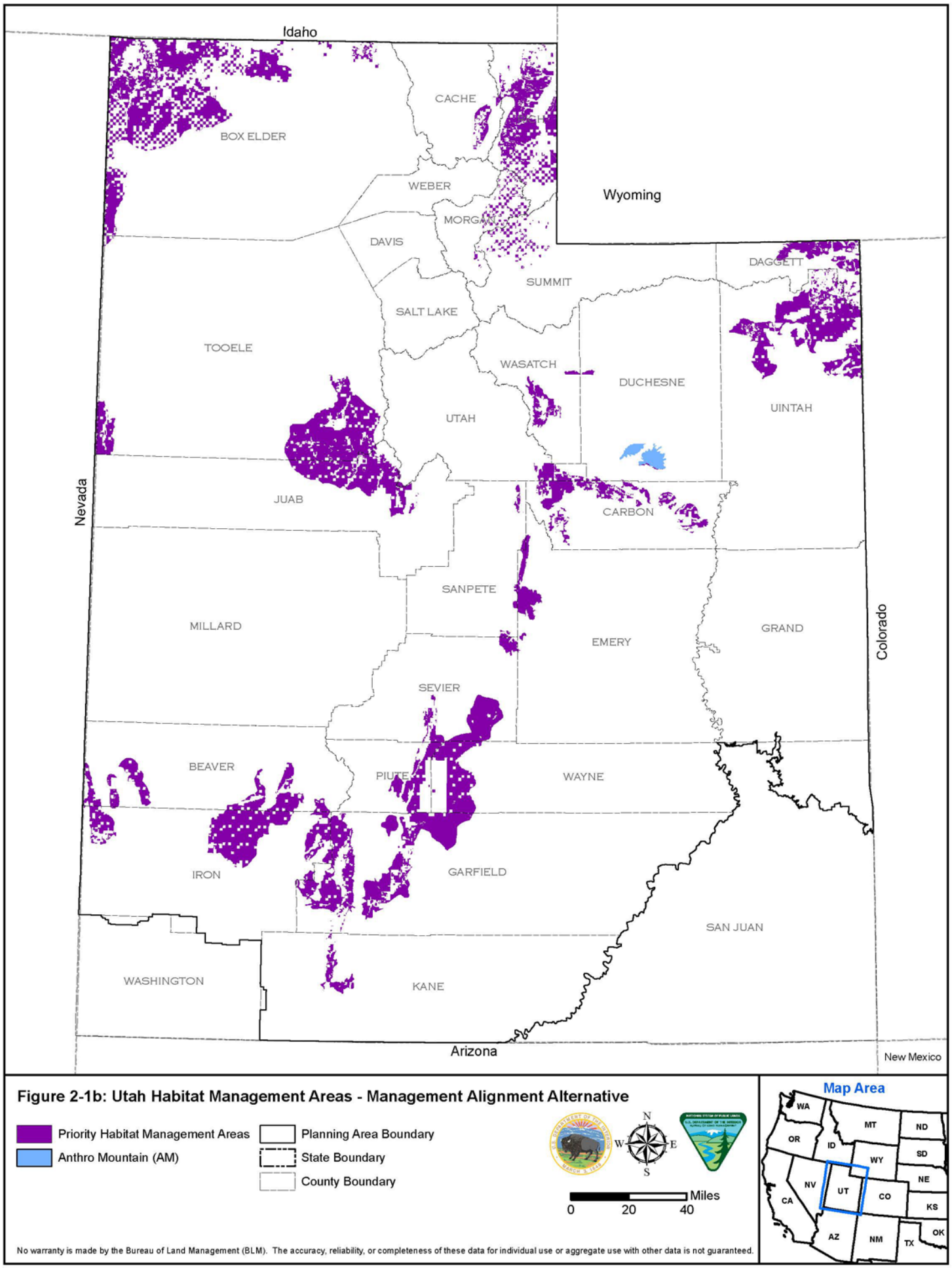
- Bureau of Land Management
- National Park Service
- US Forest Service
- Indian Reservation
- US Fish & Wildlife
- Department of Defense
- Other Federal
- State/Local
- Private/Other
- Non Federal Surface, Federal Sub-surface
- Planning Area Boundary
- State Boundary
- County Boundary

N W E S

0 20 40 Miles

Map Area

No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.


Idaho
Wyoming
Nevada
Colorado
Arizona
New Mexico
BOX ELDER
CACHE
WEBER
MORGAN
DAVIS
SUMMIT
DAGGETT
SALT LAKE
TOOELE
WASATCH
DUCHESNE
UINTAH
UTAH
JUAB
CARBON
SANPETE
MILLARD
EMERY
GRAND
SEVIER
BEAVER
PIUTE
WAYNE
IRON
GARFIELD
SAN JUAN
WASHINGTON
KANE
Figure 2-1b: Utah Habitat Management Areas - Management Alignment Alternative
Priority Habitat Management Areas
Anthro Mountain (AM)
Planning Area Boundary
State Boundary
County Boundary
N
W
E
S
Miles
0
20
40
Map Area
WA
OR
CA
ID
NV
MT
WY
UT
AZ
CO
NM
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TX
No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

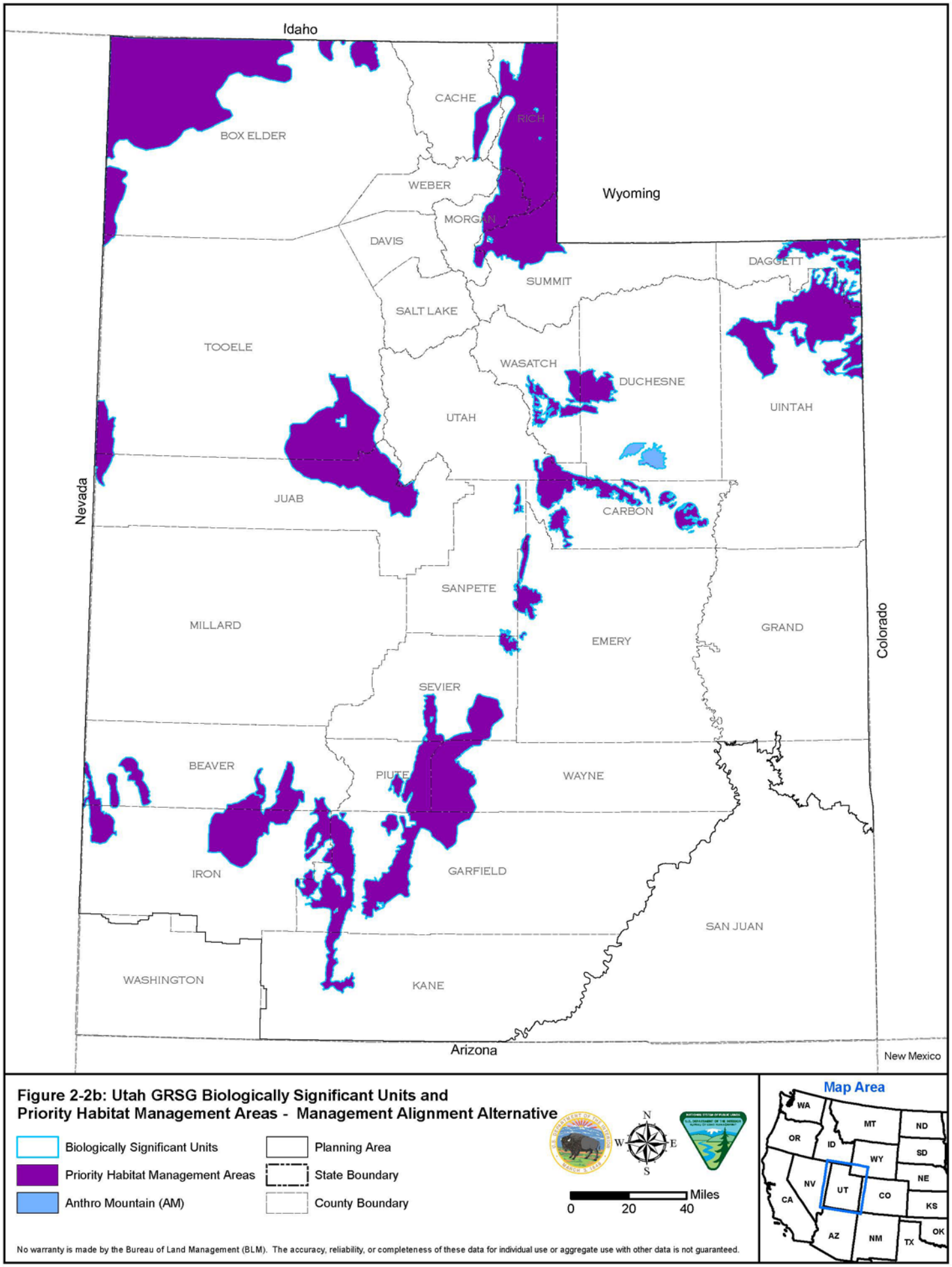
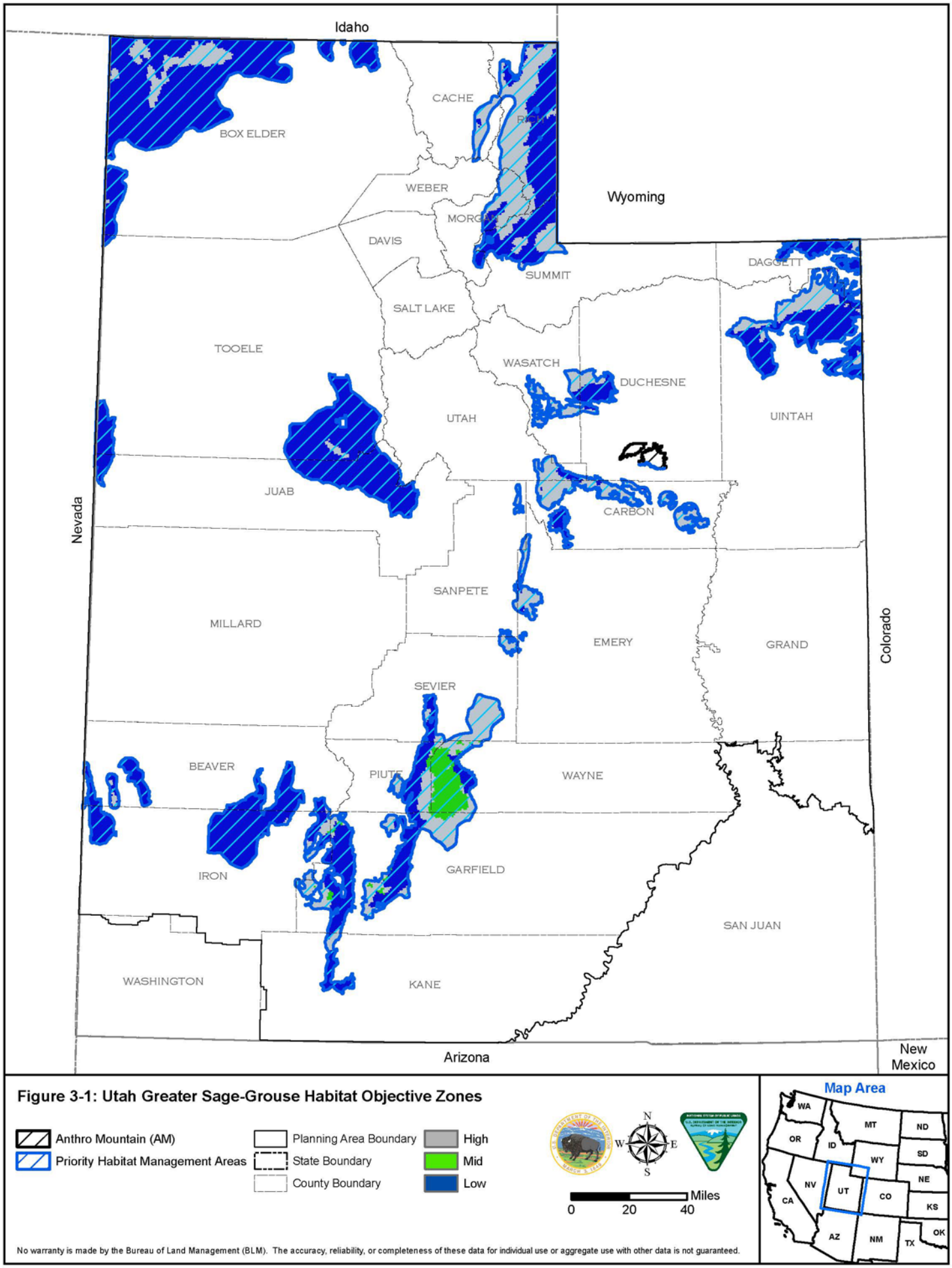


Figure 2-2b: Utah GRSG Biologically Significant Units and Priority Habitat Management Areas - Management Alignment Alternative

- Biologically Significant Units
- Priority Habitat Management Areas
- Anthro Mountain (AM)
- Planning Area
- State Boundary
- County Boundary


Idaho
Wyoming
Nevada
Colorado
Arizona
New Mexico
BOX ELDER
CACHE
RICH
WEBER
MORGAN
DAVIS
SUMMIT
DAGGETT
SALT LAKE
TOOELE
WASATCH
DUCHESNE
UTAH
UINTAH
JUAB
CARBON
SANPETE
MILLARD
EMERY
GRAND
SEVIER
BEAVER
PIUTE
WAYNE
IRON
GARFIELD
SAN JUAN
WASHINGTON
KANE
Figure 3-1: Utah Greater Sage-Grouse Habitat Objective Zones
Anthro Mountain (AM)
Priority Habitat Management Areas
Planning Area Boundary
State Boundary
County Boundary
High
Mid
Low
N
W
E
S
Miles
0
20
40
No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.
Map Area
WA
OR
CA
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AZ
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NM
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TX

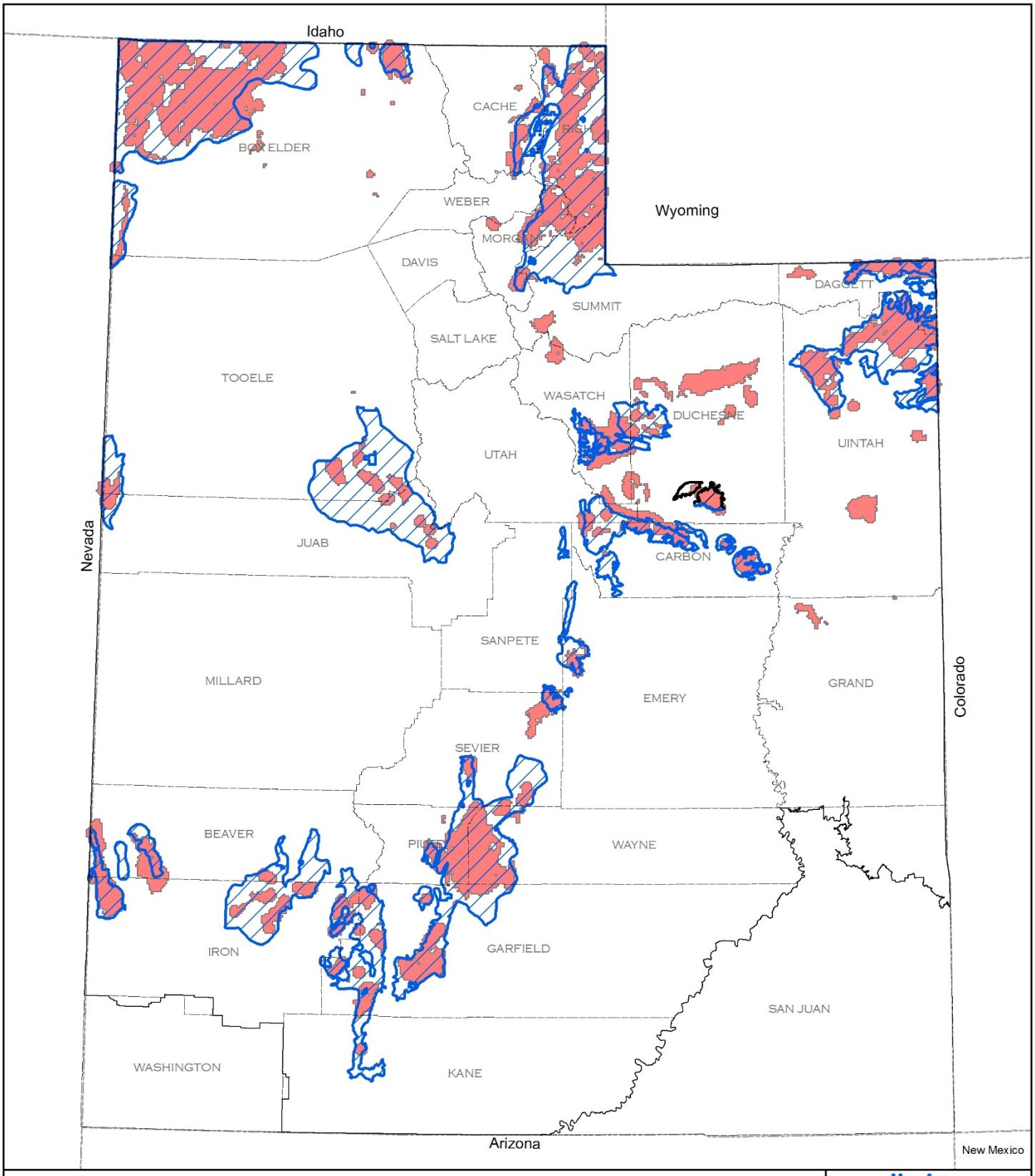


Figure 3-2: Utah Greater Sage-Grouse Breeding Habitat

Breeding
Anthro Mountain (AM)
Priority Habitat Management
Planning Area Boundary
State Boundary
County Boundary

N
W
E
S

0 20 40 Miles

Map Area

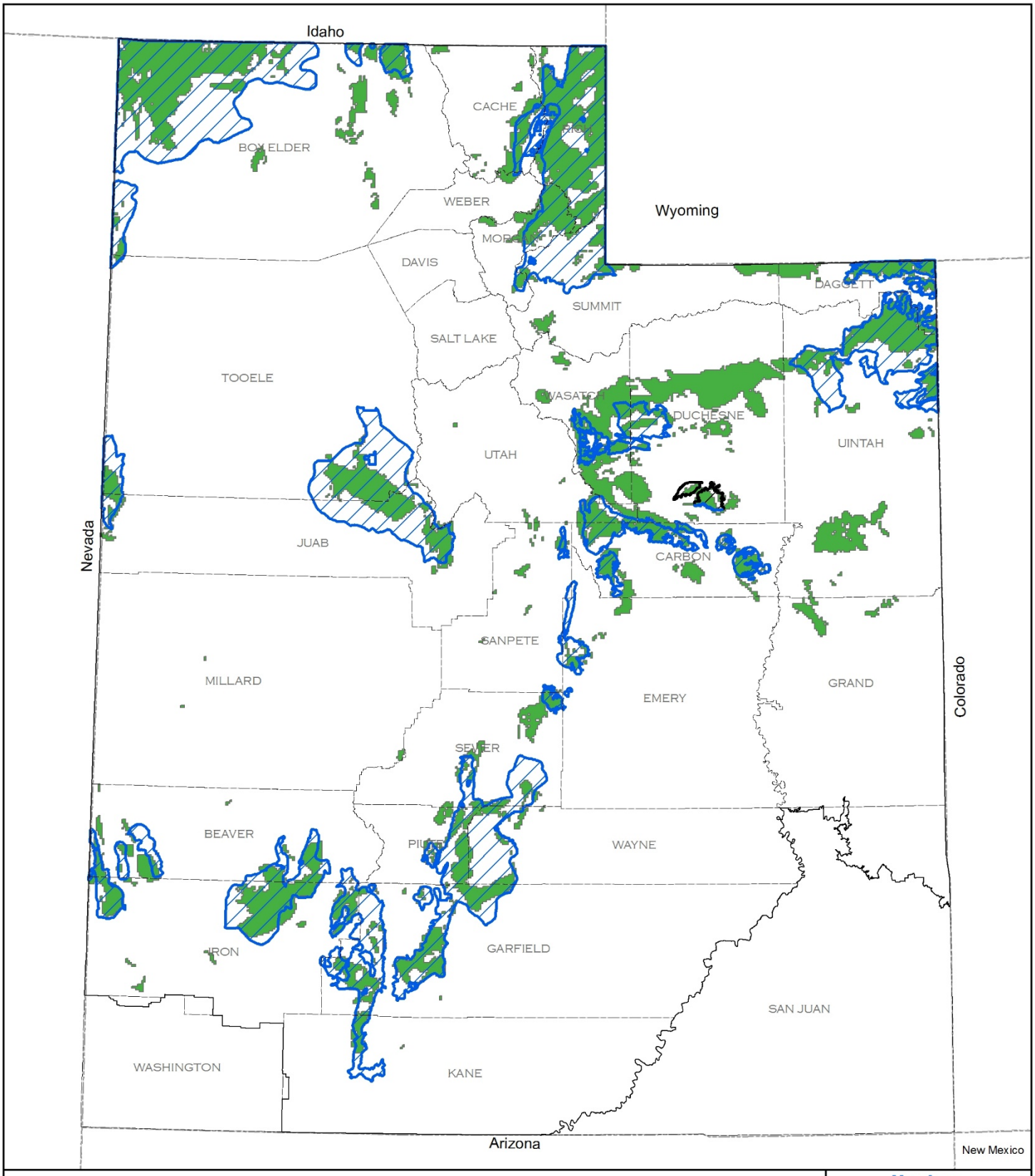


Figure 3-3: Utah Greater Sage-Grouse Summer Habitat

Summer
Anthro Mountain (AM)
Priority Habitat Management
Planning Area Boundary
State Boundary
County Boundary

N
W
E
S

0 20 40 Miles

Map Area

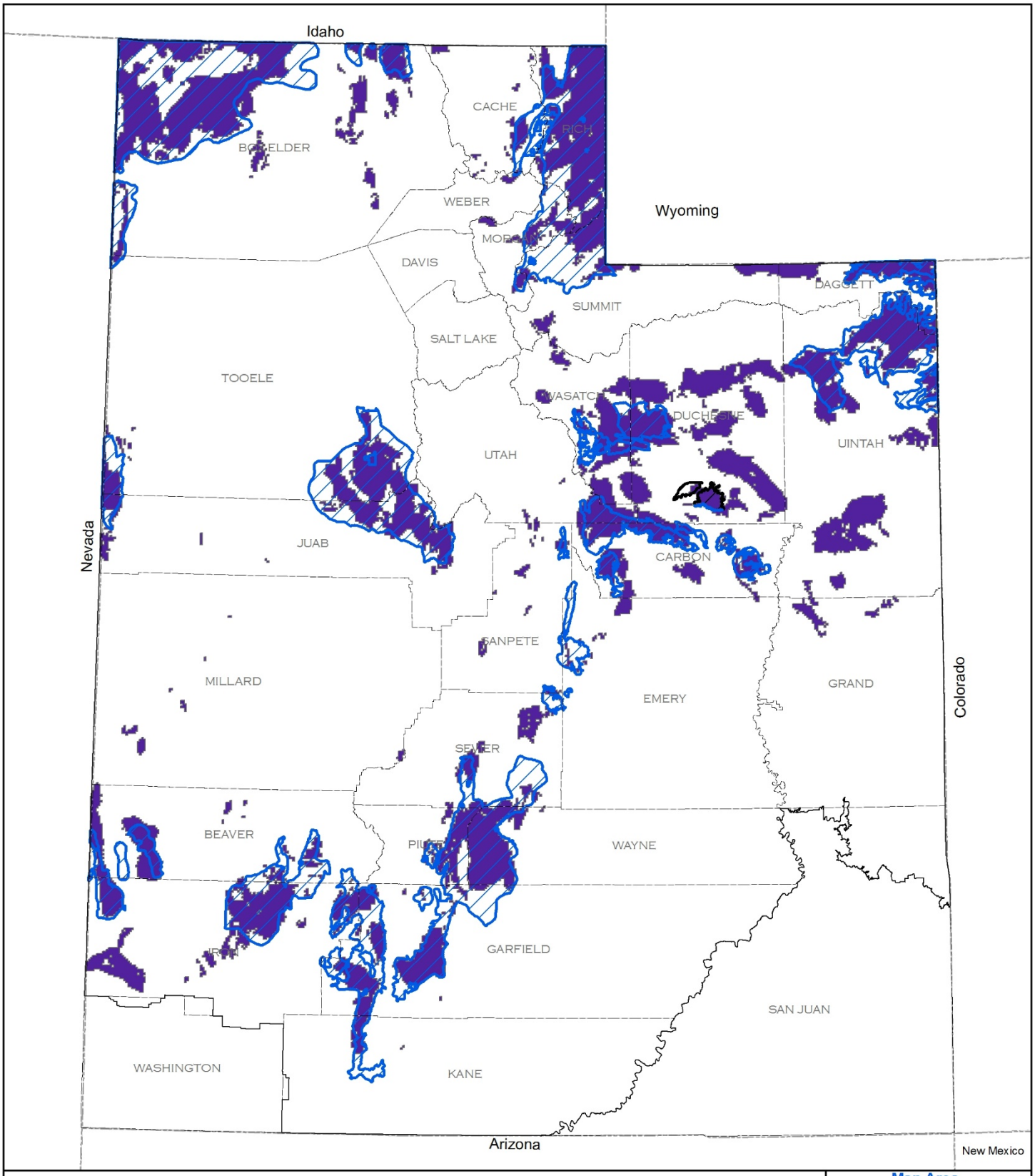


Figure 3-4: Utah Greater Sage-Grouse Winter Habitat

Winter
Anthro Mountain (AM)
Priority Habitat Management
Planning Area Boundary
State Boundary
County Boundary

N W E S

0 20 40 Miles

Map Area

WA MT ND OR ID WY SD NV UT CO NE CA KS AZ NM OK TX

No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

Appendix B

Applying Lek Buffer Distances

Appendix B. Applying Lek Buffer Distances

BUFFER-DISTANCES AND EVALUATION OF IMPACTS ON LEKS

Evaluate impacts on leks during the National Environmental Policy Act (NEPA) analysis process. In addition to any other relevant information determined to be appropriate (e.g., State wildlife agency plans), and consistent with valid existing rights, the BLM, through project-specific analysis for NEPA documentation, will assess and address impacts from the following activities using the lek buffer-distances as identified in the US Geological Survey (USGS) Report *Conservation Buffer-distance Estimates for Greater Sage-Grouse – A Review* (Open File Report 2014-1239) and local-based science. The BLM will assess and address impacts within the lek buffer-distances specified unless *justifiable departures* are determined to be appropriate (see below). The starting point for lek buffer-distances is as follows:

- linear features (roads) within 3.1 miles of leks
- infrastructure related to energy development within 3.1 miles of leks
- tall structures (e.g., communication or transmission towers and transmission lines) within 1.7 miles of leks
- low structures (e.g., fences and rangeland structures) within 1.2 miles of leks
- surface disturbance (continuing human activities that alter or remove the natural vegetation – see **Table C.2** in **Appendix C**) within 3.1 miles of leks
- noise and related disruptive activities, including those that do not result in habitat loss (e.g., motorized recreational events), at least 0.25 miles from leks

Justifiable departures will be considered to decrease or increase these distances from the lek where variability is anticipated, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations and state regulations). The USGS report recognized "that because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range." The distances noted above are starting points, from which local information should be applied to determine if local variations in distances are necessary to address lek persistence. The USGS report also states that "various protection measures have been developed and implemented… [which have] the ability (alone or in concert with others) to protect important habitats, sustain populations, and support multiple-use demands for public lands". All variations in lek buffer-distances will require appropriate analysis and disclosure as part of activity authorization. The BLM will use the most recent occupied lek data available from the state wildlife agency to assess and address project-specific impacts on leks.

ACTIONS IN PHMA

In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM, through NEPA analysis, will assess and address impacts within the lek buffer-distances identified above to document that conservation measures address the

impacts on leks (e.g., land use allocations, minimization measures, state regulations, and site-specific conditions of approval) to the degree that the activity will not directly or indirectly threaten the continued use of the occupied lek by Greater Sage-Grouse (i.e., lek persistence). The BLM may approve actions in PHMA within the applicable lek buffer-distance identified above if:

- The BLM, with input from the state fish and wildlife agency, determines, based on best available science, landscape features, and other existing protections, that a lek buffer-distance other than the applicable distance identified above offers equivalent protection to the Greater Sage-Grouse lek and its adjacent nesting habitat; or
- The BLM determines that impacts on leks and associated nesting habitats are minimized such that the project will cause minor or no new loss of habitat; or
- Other mitigation measures have been developed and implemented that will, alone or in concert with other minimization actions, maintain lek persistence and the use of adjacent nesting habitat.

If analysis, in coordination with the appropriate state agency, determines impacts could affect lek persistence (i.e., result in a lek no longer being occupied) after application of the above, additional conservation measures should be assessed and applied to address impacts (e.g., locating the action outside of the applicable lek buffer-distance(s) identified above).

Range improvements that do not affect Greater Sage-Grouse or range improvements that provide a conservation benefit to Greater Sage-Grouse, such as fences for protecting important seasonal habitats, are exempt from the lek buffer requirement.

Appendix E

Greater Sage-Grouse Disturbance Cap Guidance

Appendix E. Greater Sage-Grouse Disturbance Cap Guidance

INTRODUCTION

In the US Fish and Wildlife Service's (USFWS) 2010 listing decision for Greater Sage-Grouse (GRSG), the USFWS identified 18 threats contributing to the destruction, modification, or curtailment of the GRSG's habitat or range (75 *Federal Register* 13910 2010). The 18 threats have been aggregated into three measures. The three measures are:

- Sagebrush availability (percent of sagebrush per unit area)
- Habitat degradation (percent of human activity per unit area)
- Density of energy and mining (facilities and locations per unit area)

Habitat Degradation and Density of Energy and Mining will be evaluated under the Disturbance Cap and Density Cap respectively and are further described in this appendix. The three measures, in conjunction with other information, will be considered during the National Environmental Policy Act of 1969 (NEPA) process for projects authorized or undertaken by the Bureau of Land Management (BLM).

DISTURBANCE CAP

This land use plan has incorporated a 3 percent disturbance cap, applicable only within GRSG priority habitat management areas (PHMA). The disturbance cap applies to PHMA within 1) PHMA associated with a GRSG population area (referred to as biologically significant units {BSU} when coordinating across state lines), and 2) the project authorization scale.

For the Utah Sub-region, a "BSU" is the total PHMA acreage associated with a GRSG population area. At this scale, the total PHMA acreage in a population area is the denominator portion of the percentage calculation.

At the project scale, the denominator is determined by identifying PHMA that is nearby or affected by the proposed project that is also located in PHMA. The project scale denominator should include the portions of PHMA used by the local population of GRSG, including all seasonal habitats and transition zones, associated with where the project is proposed. If sufficient monitoring information is not available to identify the portions of the PHMA used by a local population of GRSG, project level boundaries should be identified as described in steps 2-4 below. Steps 1and 5-9 are applicable to either approach of identifying the project scale denominator.

The denominator in the disturbance calculation formula consists of all acres of lands classified as PHMA within the analysis area (BSU or project scale). Areas that are not GRSG seasonal habitats, or are not currently supporting sagebrush cover (e.g., due to wildfire), are not excluded from the acres of PHMA in the denominator of the formula. Information regarding GRSG seasonal habitats, sagebrush availability,

and areas with the potential to support GRSG populations will be considered along with other local conditions that may affect GRSG during the analysis of the proposed project area.

The numerator portion of the percentage calculation is limited to specific activities associated with specific GRSG threats. At both the BSU and project scale, this includes the 12 items identified in the "Habitat Degradation" column of **Table E-1**, Relationship between the 18 Threats and the Three Habitat Disturbance Measures for Monitoring and Disturbance Calculations. At the project scale, seven additional site scale features are included in the cap, identified and defined in **Table E-2**, Seven Site Scale Features Considered Threats to GRSG Included in the Disturbance Calculation for Project Authorizations. No other activities, actions, or threats are included in the numerator when calculating the cap.

At both the BSU and project scale, the best available information should be used to map existing disturbance. At the BSU scale, the west-wide habitat degradation (disturbance) data layers and associated areas of direct influence identified in **Table E-3**, Anthropogenic Disturbance Types for Disturbance Calculations, will be used, at a minimum, to calculate the amount of disturbance and to determine if the disturbance cap has been exceeded as the land use plans are being implemented. Locally collected disturbance data will be used to determine if the disturbance cap has been exceeded for project authorizations, and, as available, may also be used to calculate the amount of disturbance in the BSUs. Locally collected disturbance data should identify the actual areas of disturbance to the extent possible, and are not required to rely on the "Direct Area of Influence" estimates in **Table E-3**.

Although locatable mine sites are included in the degradation calculation, mining activities under the Mining Law of 1872, as amended, may not be subject to the 3 percent disturbance cap. Details about locatable mining activities will be fully disclosed and analyzed in the NEPA process to assess impacts to GRSG and their habitat as well as to goals and objectives, and other agency programs and activities.

DISTURBANCE FORMULAS

Formulas for calculations of the amount of disturbance in PHMA in a Population Area (BSU) and in a proposed project area are as follows:

- For PHMA within a Population Area (BSUs):

  % Degradation Disturbance = (combined acres of the 12 degradation threats1) ÷ (acres of all lands within PHMA in a Population Area {BSU}) x 100.

- For the Project Analysis Area:

  % Degradation Disturbance = (combined acres of the 12 degradation threats2 plus the 7 site scale threats and acres of habitat loss3) ÷ (acres of all lands within PHMA in the project analysis area) x 100.

[1] See **Table E-1**.
[2] See **Table E-1**.
[3] See **Table E-2**.

PROJECT ANALYSIS AREA METHOD FOR PERMITTING SURFACE DISTURBANCE ACTIVITIES

1. Identify the portions of the proposed area of physical disturbance within PHMA. In other words, in GIS, "clip" the proposed project to PHMA.

2. Determine potentially affected occupied leks by placing a 4 mile boundary around the proposed area of physical disturbance related to the project. All occupied leks located within the 4 mile project boundary and within PHMA will be considered affected by the project.

3. Next, place a 4 mile boundary around each of the affected occupied leks.

4. PHMA within the 4 mile project boundary as well as the 4 mile lek boundary creates the project analysis area for each individual project. If there are no occupied leks within the 4 mile project boundary, the project analysis area will be that portion of the 4 mile project boundary within PHMA.

5. Map disturbances or use locally available data. Use of NAIP imagery is recommended.

6. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3 percent, proceed to next step. If existing disturbance is greater than 3 percent, defer the project unless a technical team, in coordination with the appropriate State of Utah agency, determines the project will improve the condition of GRSG habitat through analysis of site-specific GRSG habitat and population information and project design elements (see MA-SSS-3B).

7. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3 percent, proceed to next step. If disturbance is greater than 3 percent, defer project unless a technical team, in coordination with the appropriate State of Utah agency, determines the project will improve the condition of GRSG habitat through analysis of site-specific GRSG habitat and population information and project design elements (see MA-SSS-3B).

8. For disturbance from proposed energy or mining facilities, calculate the disturbance density (listed below under *Density Cap*). If the disturbance density is less than 1 facility per 640 acres, averaged across the project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed energy or mining project or co-locate it into existing disturbed area. Discrete disturbances should be consolidated and localized as much as possible; this could result in small areas where density exceeds 1 facility per 640 acres, but average density in the project analysis area remains beneath the cap.

9. If a project that would exceed the degradation cap or density cap (for energy or mining facilities) cannot be deferred due to valid existing rights or other existing laws and regulations, fully disclose the local and regional impacts of the proposed action in the associated NEPA.

TRAVEL AND TRANSPORTATION FEATURES IN THE DISTURBANCE CAP

When locally collecting disturbance inventories, travel and transportation features would be included or not included as disturbance based on the characteristics of the feature.

The following would count as disturbance (see **Attachment I** for definitions):

- Linear transportation features identified as roads that have a maintenance intensity of 3 or 5
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a functional classification and a maintenance intensity of level 3 or 5

The following items would not count as disturbance:

- Linear transportation features identified as trails.
- Linear transportation features identified as primitive roads, temporary routes, or administrative routes that have a maintenance intensity of either level 0 or 1.
- Linear transportation features identified as primitive routes.
- Linear disturbances.

DENSITY CAP

This land use plan has also incorporated a cap on the density of energy and mining facilities at an average of 1 facility per 640 acres in PHMA in a project authorization area. If the disturbance density from energy or mining facilities in PHMA in a proposed project area is on average less than 1 facility per 640 acres, the analysis will proceed through the NEPA process incorporating mitigation measures into an alternative. If the disturbance density from energy or mining facilities is greater than an average of 1 facility per 640 acres, the proposed project will either be deferred (1) until the density of energy and mining facilities is less than the cap, or (2) the energy or mining facility is co-located into existing disturbed area (subject to applicable laws and regulations, such as the Mining Law of 1872, as amended, valid existing rights, etc.). However, the density cap may be exceeded if a project is located in non-habitat (see MA-SSS-1 language related to placement of development in non-habitat portions of PHMA), or, if the process identified in MA-SSS-3B determines the project will improve the condition of GRSG habitat through analysis of site-specific GRSG habitat and population information and project design elements. Facilities affected by the density calculation (**Table E-3**) are:

- Energy (oil and gas wells and development facilities)
- Energy (coal mines)
- Energy (wind towers)
- Energy (solar fields)
- Energy (geothermal)
- Mining (active locatable, leasable, and saleable developments)

Table E-1
Relationship Between the 18 Threats and the Three Habitat Disturbance Measures for Monitoring and Disturbance Calculations

USFWS Listing Decision Threat	Sagebrush Availability	Habitat Degradation (disturbance cap)	Energy and Mining Density (density cap)
Agriculture	X		
Urbanization	X		
Wildfire	X		
Conifer encroachment	X		
Treatments	X		
Invasive Species	X		
Energy (oil and gas wells and development facilities)		X	X
Energy (coal mines)		X	X
Energy (wind towers)		X	X
Energy (solar fields)		X	X
Energy (geothermal)		X	X
Mining (active locatable, leasable, and saleable developments)		X	X
Infrastructure (roads)		X	
Infrastructure (railroads)		X	
Infrastructure (power lines)		X	
Infrastructure (communication towers)		X	
Infrastructure (other vertical structures)		X	
Other developed rights-of-way		X	

Table E-2
The Seven Site Scale Features Considered Threats to Sage-Grouse Included in the Disturbance Calculation for Project Authorizations

1.	Coalbed Methane Ponds
2.	Meteorological Towers
3.	Nuclear Energy Facilities
4.	Airport Facilities and Infrastructure
5.	Military Range Facilities & Infrastructure
6.	Hydroelectric Plants
7.	Recreation Areas Facilities and Infrastructure
Definitions:	
1.	**Coalbed Methane and other Energy-related Retention Ponds –** The footprint boundary will follow the fenceline and includes the area within the fenceline surrounding the impoundment. If the pond is not fenced, the impoundment itself is the footprint. Other infrastructure associated with the containment ponds (roads, well pads, etc.) will be captured in other disturbance categories.
2.	**Meteorological Towers –** This feature includes long-term weather monitoring and temporary meteorological towers associated with short-term wind testing. The footprint boundary includes the area underneath the guy wires.
3.	**Nuclear Energy Facilities** – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility's perimeter.
4.	**Airport Facilities and Infrastructure (public and private)** – The footprint boundary will follow the boundary of the airport or heliport and includes mowed areas, parking lots, hangers, taxiways, driveways, terminals, maintenance facilities, beacons and related features. Indicators of the boundary, such as distinct land cover changes, fences and perimeter roads, will be used to encompass the entire airport or heliport.
5.	**Military Range Facilities & Infrastructure** – The footprint boundary will follow the outer edge of the disturbed areas around buildings and includes undisturbed areas within the facility's perimeter.
6.	**Hydroelectric Plants** – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility's perimeter.
7.	**Recreation Areas & Facilities –** This feature includes all sites/facilities larger than 0.25 acres in size. The footprint boundary will include any undisturbed areas within the site/facility.

Table E-3
Anthropogenic Disturbance Types for Disturbance Calculations
Data Sources are Described for the West-Wide Habitat Degradation Estimates

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
Energy (oil & gas)	Wells	IHS; BLM (AFMSS)	5.0ac (2.0ha)	BLM WO-300
	Power Plants	Platts (power plants)	5.0ac (2.0ha)	BLM WO-300
Energy (coal)	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Energy (wind)	Wind Turbines	Federal Aviation Administration	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	3.0ac (1.2ha)	BLM WO-300
Energy (solar)	Fields/Power Plants	Platts (power plants)	7.3ac (3.0ha)/ MW	NREL
Energy (geothermal)	Wells	IHS	3.0ac (1.2ha)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Mining	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
Infrastructure (roads)	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7ft (12.4m)	USGS
	Major Roads	Esri StreetMap Premium	84.0ft (25.6m)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2ft (73.2m)	USGS
Infrastructure (railroads)	Active Lines	Federal Railroad Administration	30.8ft (9.4m)	USGS
Infrastructure (power lines)	1-199kV Lines	Platts (transmission lines)	100ft (30.5m)	BLM WO-300
	200-399 kV Lines	Platts (transmission lines)	150ft (45.7m)	BLM WO-300
	400-699kV Lines	Platts (transmission lines)	200ft (61.0m)	BLM WO-300
	700+kV Lines	Platts (transmission lines)	250ft (76.2m)	BLM WO-300
Infrastructure (communication)	Towers	Federal Communications Commission	2.5ac (1.0ha)	BLM WO-300

Note: Data sources are described for the west-wide habitat degradation estimates.

ATTACHMENT 1: TRAVEL AND TRANSPORTATION MANAGEMENT DEFINITIONS FOR USE IN ANTHROPOGENIC DISTURBANCE CALCULATION

Roads are linear routes managed for use by low clearance vehicles having four or more wheels, and are maintained for regular and continuous use.

Primitive Roads are linear routes managed for use by four-wheel drive or high-clearance vehicles. They do not normally meet any design standards.

Trails are linear routes managed for human-powered, stock, or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Linear Disturbances are human-made linear features that are not part of the designated transportation network are identified as "Transportation Linear Disturbances." These may include engineered (planned) as well as unplanned single and two-track linear features that are not part of the BLM's transportation system.

Primitive Routes are any transportation linear feature located within a wilderness study area or lands with wilderness characteristics identified for protection by a land use plan and not meeting the wilderness inventory road definition.

Temporary Routes are short-term overland roads, primitive roads or trails which are authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan. Temporary routes are not intended to be part of the permanent or designated transportation network and must be reclaimed when their intended purpose(s) has been fulfilled. Temporary routes should be constructed to minimum standards necessary to accommodate the intended use; the intent is that the project proponent (or their representative) will reclaim the route once the original project purpose or need has been completed. Temporary routes are considered emergency, single use or permitted activity access. Unless they are specifically intended to accommodate public use, they should not be made available for that use. A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (e.g., permit, ROW, lease, or contract) and will be scheduled and budgeted for reclamation to prevent further vehicle use and soil erosion from occurring by providing adequate drainage and re-vegetation.

Administrative Routes are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the agency or permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring.

Maintenance Intensities

Level 0

Maintenance Description

Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Maintenance Objectives

- No planned annual maintenance.
- Meet identified environmental needs.
- No preventative maintenance or planned annual maintenance activities.

Level 1

Maintenance Description

Routes where minimum (low intensity) maintenance is required to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Maintenance Objectives

- Low (Minimal) maintenance intensity.
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives.
- Perform maintenance as necessary to protect adjacent lands and resource values.
- No preventative maintenance.
- Planned maintenance activities limited to environmental and resource protection.
- Route surface and other physical features are not maintained for regular traffic.

Level 3

Maintenance Description

Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives

- Medium (Moderate) maintenance intensity.
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for

management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis.

- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

Level 5

Maintenance Description

Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

Maintenance Objectives

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventative maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.

Route surface and other physical features are maintained for regular traffic.

Appendix G

Stipulations Associated with Fluid Mineral Leasing

Appendix G. Stipulations Associated with Fluid Mineral Leasing

This appendix lists stipulations for new fluid minerals leases referred to under the 2019 Approved Resource Management Plan Amendment (2019 Approved ARMPA).

DESCRIPTION OF SURFACE STIPULATIONS

Table G-1 shows the fluid mineral leasing stipulations for the 2019 Approved ARMPA, including exceptions, modifications, and waivers. Three types of surface stipulations could be applied to fluid mineral leases: (1) no surface occupancy (NSO), (2) timing limitations (TL), and (3) controlled surface use (CSU). All stipulations for other resources, besides Greater Sage-Grouse, included in the existing land use plans would still be applicable.

Areas identified as NSO would be closed to surface-disturbing activities associated with fluid mineral development.

Areas identified as TL would be closed to surface-disturbing activities associated with fluid mineral development during identified time frames. TL areas would be open to operational and maintenance activities, including associated vehicle travel, during the closed period unless otherwise specified in the stipulation.

Areas identified as CSU would require proposals to be authorized only according to the controls or constraints specified. The controls would be applicable to activities associated with fluid mineral development.

RELIEF FROM STIPULATIONS

With regard to fluid minerals, surface stipulations could be excepted, modified, or waived by the Authorized Officer, but only as specifically identified below. An exception exempts the holder of the land use authorization document from the stipulation on a one-time (or case-by-case) basis. A modification changes the language or provisions of a surface stipulation, either temporarily or permanently. A waiver permanently removes the stipulation from the lease. The environmental analysis document prepared for site-specific proposals such as fluid minerals development (i.e., master development plans applications for permit to drill or sundry notices) also would need to address proposals to exempt, modify, or waive a surface stipulation.

On BLM-administered lands, to exempt, modify, or waive a stipulation, the environmental analysis document would have to show that (1) the circumstances or relative resource values in the area had changed following issuance of the lease, (2) less restrictive requirements could be developed to protect the resource of concern, and (3) operations could be conducted without causing unacceptable impacts.

In cases where waivers, exceptions, or modification are granted for projects with a residual impact, voluntary compensatory mitigation consistent with the State's management goals can be one mechanism

by which a proponent achieves the RMPA goals, objectives, and waiver, exception, or modification criteria. When a proponent volunteers compensatory mitigation as their chosen approach to address residual impacts, the BLM can incorporate those actions into the rationale used to grant a waiver, exception, or modification. The final decision to grant a waiver, exception, or modification will be based, in part, on criteria consistent with the State's Greater Sage-Grouse management plans and policies.

Table G-1
BLM 2019 Approved ARMPA
Fluid Minerals Stipulations and Exception, Modification, and Waiver Criteria

Stipulation	Stipulation Description
No surface occupancy within PHMA.	**Purpose:** To protect Greater Sage-Grouse habitat from activity in PHMA. **Exception:** The Authorized Officer may grant an exception where the proposed action: i. Occurs in non-habitat that does not provide important connectivity between habitat areas and the development would not cause indirect disturbance to or disruption of adjacent seasonal habitats that would impair their biological function of providing the life-history or behavioral needs of the Greater Sage-Grouse population due to project design (e.g., minimize sound, preclude tall structures, require perch deterrents), as demonstrated in the project's NEPA document; OR ii. Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and development on the parcel in question would have less of an impact to Greater Sage-Grouse or its habitat than on nearby parcel. This exception must also include measures sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. **Modification:** The Authorized Officer may grant a modification to a fluid mineral lease NSO stipulation only where an exception is granted, as described above, for the primary disturbance (e.g., well pad, compressor station). A modification to the NSO stipulation could be considered for the associated infrastructure related to the development that are not individually precluded by other Greater Sage-Grouse actions (e.g., roads, pipelines, powerlines). While the NSO stipulation could be modified for this infrastructure, it must still comply with other Greater Sage-Grouse management contained in MA-SSS-3. **Waiver:** The Authorized Officer may grant a waiver to a fluid mineral lease NSO stipulation if, through the appropriate planning process (i.e., maintenance, amendment), the area is no longer within PHMA. *The other Greater Sage-Grouse stipulations would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
Manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3	**Purpose:** To protect PHMA and the life-history needs of Greater Sage-Grouse from habitat loss and Greater Sage-Grouse populations from disturbance and limit fragmentation in PHMA. This

percent of 1) PHMA associated with a Greater Sage-Grouse population area (referred to as biologically significant units {BSU} when coordinating across state lines), and 2) within the proposed project analysis area.	would be implemented as a lease notice associated with new leases, in addition to the NSO stipulation. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **Exception:** The 3 percent cap may be exceeded at the proposed project analysis scale if a technical team determines that site-specific Greater Sage-Grouse habitat and population information, combined with project design elements indicates the project will improve the condition of Greater Sage-Grouse habitat within the proposed project analysis area. Factors considered by the team are in **Appendix E** and in MA-SSS-3B. Such exceptions to the 3 percent disturbance cap may be approved by the Authorized Officer only with the concurrence of the State Director. The finding and recommendation shall be made by the technical team, which should consist of a BLM field biologist, other local Greater Sage-Grouse experts, and biologists and other representatives from the appropriate State of Utah agency. **Modification:** The stipulation can be modified to allow disturbance to exceed 3 percent on the lease if disturbance in the project analysis area and PHMA associated with a Greater Sage-Grouse population area remains under 3 percent. **Waiver:** The Authorized Officer may grant a waiver to a fluid mineral lease NSO stipulation if, through the appropriate planning process (i.e., maintenance, amendment), the area is no longer within PHMA. *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
In PHMA, limit the density of energy and mining facilities during project authorization to an average of one energy/mineral facility per 640 acres.	**Purpose:** To protect PHMA and the life-history needs of Greater Sage-Grouse from habitat loss and Greater Sage-Grouse populations from disturbance and limit fragmentation in PHMA. This would be implemented as a lease notice associated with new leases, in addition to the NSO stipulations. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **Exception:** The density cap may be exceeded at the proposed project analysis scale if a technical team determines that site-specific Greater Sage-Grouse habitat and population information, combined with project design elements, indicates the project will improve the condition of Greater Sage-Grouse habitat within the proposed project analysis area. Factors considered by the team are in **Appendix E** and MA-SSS-3C. Such exceptions to the density cap may be approved by the Authorized Officer only with the concurrence of the State Director. The finding and recommendation shall be made by the technical team which should consist of a BLM field biologist, other local Greater Sage-Grouse

	experts, and biologists and other representatives from the appropriate State of Utah agency. **Modification:** Can exceed the density cap on the lease if the broader project area remains under the limit. **Waiver:** None
Surface occupancy or use within the PHMA is subject to the following operating constraints: ● Limit noise from discretionary activities (during construction, operation, or maintenance) will not exceed 10 decibels above ambient sound levels at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during breeding season (e.g., while males are strutting); support the establishment of ambient baseline noise levels for PHMA habitat area leks. ● Limit project related noise in other PHMA habitats and seasons where it would be expected to reduce functionality of habitats that support associated Greater Sage-Grouse populations.	**Purpose:** Protecting Greater Sage-Grouse from auditory disturbance associated with fluid mineral developments. **Exception:** None **Modification:** As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate measures would be implemented where necessary to minimize potential for noise impacts on PHMA Greater Sage-Grouse population behavioral cycles. **Waiver:** None
Surface occupancy or use within the PHMA is subject to the following operating constraints: ● Limit the placement of permanent tall structures within PHMA breeding and nesting habitats. ● For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors, ravens) that may naturally be absent, or that decreases the use of an area by PHMA. A determination as to whether something is considered a tall structure would be made based on local conditions such as existing vegetation or topography.	**Purpose:** To minimize placement of structures that introduce new perching and/or nesting opportunities for avian predators. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **Exception:** None **Modification:** None **Waiver:** None
No surface disturbance allowed between Feb 15 – June 15, in PHMA Greater Sage-Grouse breeding, nesting, and early brood-rearing habitat.	**Purpose:** To seasonally protect Greater Sage-Grouse within PHMA from disruptive activity during breeding, nesting and early brood-rearing. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.

Table G-1
BLM 2019 Approved ARMPA
Fluid Minerals Stipulations and Exception, Modification, and Waiver Criteria

	Exception: None **Modification:** Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect Greater Sage-Grouse, in coordination with the appropriate Utah state agency. **Waiver:** None
No surface disturbance allowed between April 15 – August 15, in PHMA Greater Sage-Grouse brood-rearing habitat.	**Purpose:** To seasonally protect Greater Sage-Grouse within PHMA from disruptive activity during brood-rearing. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **Exception:** None **Modification:** Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect Greater Sage-Grouse, in coordination with the appropriate Utah state agency. **Waiver:** None
No surface disturbance allowed between Nov 15 – March 15, in PHMA Greater Sage-Grouse winter habitat.	**Purpose:** To seasonally protect Greater Sage-Grouse within PHMA from disruptive activity during the winter season. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **Exception:** None **Modification:** Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect Greater Sage-Grouse, in coordination with the appropriate Utah state agency. **Waiver:** None
Outside of PHMA, areas that are 1) within of State of Utah opportunity areas, and 2) within the lek buffer distances identified in Appendix B for leks located in PHMA, will be subject to the following operating constraints: ● Limit noise from discretionary activities (during construction, operation, or maintenance) so it will not exceed 10 decibels above ambient sound levels at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during	**Purpose:** Protecting Greater Sage-Grouse from indirect disturbance near leks within PHMA. **Exception:** None **Modification:** As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate measures would be implemented where necessary to minimize potential for noise impacts on PHMA Greater Sage-Grouse population behavioral cycles. **Waiver:** None

breeding season (e.g., while males are strutting); support the establishment of ambient baseline noise levels for PHMA habitat area leks. ● Limit project related noise in other PHMA habitats and seasons where it would be expected to reduce functionality of habitats that support associated Greater Sage-Grouse populations.	
Outside of PHMA, areas that are 1) within of State of Utah opportunity areas, and 2) within the lek buffer distances identified in Appendix B for leks located in PHMA, will be subject to the following operating constraints: ● Limit the placement of permanent tall structures within PHMA breeding and nesting habitats. ● For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors, ravens) that may naturally be absent, or that decreases the use of an area by PHMA. A determination as to whether something is considered a tall structure would be made based on local conditions such as existing vegetation or topography.	**Purpose:** To minimize placement of structures that introduce new perching and/or nesting opportunities for avian predators. **Exception:** None **Modification:** None **Waiver:** None **For the purposes of this restriction, a tall structure is any manmade structure that provides for perching/nesting opportunities for predators (e.g., raptors and ravens) that are naturally absent, or that decreases the use of an area by Greater Sage-Grouse. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography.

Appendix I
Adaptive Management

Appendix I. Adaptive Management

Adaptive management is a decision process that promotes flexible resource management decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps with adjusting resource management directions as part of an iterative management process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a "trial and error" process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. On February 1, 2008, the Department of the Interior published its Adaptive Management Implementation Policy (522 DM 1). The adaptive management strategy presented within this Resource Management Plan Amendment (RMPA) complies with this policy and direction.

In relation to the Bureau of Land Management (BLM) and US Forest Service (Forest Service) National Greater Sage-Grouse Planning Strategy, adaptive management provides additional certainty for effectiveness of conservation when implemented in concert with the Greater Sage-Grouse conservation measures presented in the plan amendments. This adaptive management strategy is incorporated along with the conservation measures in the plan to ameliorate threats to Greater Sage-Grouse, thereby increasing the likelihood that the combined conservation measures are effective in reducing threats to that species. The following provides the BLM's adaptive management strategy for the Utah Greater Sage-Grouse RMPA.

UTAH SUBREGIONAL ADAPTIVE MANAGEMENT STRATEGY

The Utah Subregional adaptive management strategy includes the identification of soft and hard triggers and a management approach for responding to those triggers. In the spring of 2014, a multi-agency Utah group coordinated to develop adaptive management triggers for Greater Sage-Grouse populations in Utah. This group includes State of Utah Division of Wildlife Resources (UDWR), Utah Governor's Public Lands Policy Coordination Office, US Fish and Wildlife Service (USFWS), Forest Service, and BLM. A biologist focus group, a subset of the Utah adaptive management group, was tasked with reviewing Greater Sage-Grouse monitoring data and determining what population and habitat triggers are appropriate given the natural cyclic variability observed in all Greater Sage-Grouse populations.

BACKGROUND INFORMATION

Greater Sage-Grouse Population Change

As is discussed in the 2015 Final EIS, Section 3.3, Greater Sage-Grouse populations across the range fluctuate cyclically. In Utah the cycle seems, generally, to follow a 10-year pattern. The exact reason for the cycle is currently unknown. However, various aspects (i.e., vital rates) of the Greater Sage-Grouse's life cycle have been linked by past research to changes in environment and habitat.

Utah's Greater Sage-Grouse populations will likely continue to fluctuate over the short term and on their historic 10-year cycle. The general direction of the cycles, whether populations are trending up or down, is the critical conservation concern for Greater Sage-Grouse. Connelly et al. (2004) showed that rangewide the trend was decreasing from the 1960s to the mid-1980s, hitting a low in the mid-1990s, but then stabilizing to the present. Certainly, if habitat loss and degradation occur within a population's habitat base the population would likely decline in succeeding years without habitat restoration and/or other management intervention. However, if the habitat base remains intact it is likely that the population will continue to fluctuate, but remain relatively stable in the long term. Greater Sage-Grouse require large landscapes of contiguous sagebrush habitat to carry out their life-cycle. Securing these large landscapes from further degradation and adding more habitat through restoration is the primary conservation action for Greater Sage-Grouse.

Lek Count Data

When considering monitoring data there is always uncertainty, error, and statistical noise. Greater Sage-Grouse lek (breeding ground) counts are not comprehensive in nature, but rather represent a sample of and index to the population. This uncertainty carries over into using lek counts to make decisions for implementing management actions. Any metric of population change (e.g., percent annual change, percent above or below 10-year average, etc.) includes the uncertainty that comes from sampling populations. Therefore, creating precise decision triggers based on lek data is inherently problematic, and should include a relatively large range of specific metrics and management options. However, much more certainty exists concerning the effect of habitat loss or degradation, and precise decision triggers would be much more reliable for habitat conservation purposes.

For Greater Sage-Grouse, while some production data has been collected in various populations, the only data that have been consistently collected across the range of the species and within Utah for this species has been males attending leks. While male lek attendance has been the primary source of data collected and is used as an index of Greater Sage-Grouse populations, it is critical that the strengths and weaknesses of lek counts be understood to appropriately evaluate how confidence in the data may vary. For instance, the number of males counted on leks can vary depending upon how many times the lek was counted in a spring (at least three times is recommended to increase the chances that the peak male lek attendance was observed), time of day (three counts conducted between 30 minutes before sunrise to 1 hour after sunrise), and the weather conditions (calm). Standardized lek counts have become more common practice recently. The lek count protocol is based on lek attendance research (Jenni and Hartzler 1978; Emmons and Braun 1984; Connelly et al. 2003). In general, lek count protocol has become a priority in the last 15 years and adherence to the protocol increases the confidence in and comparability of the resulting data.

Early in the history of collecting lek count data in Utah, the likelihood that leks were known depended on two things: 1) the proximity of the lek to areas frequented by people during dawn (near roads or corrals); and 2) the size of the lek; the larger the lek, the more likely it was noticed. Therefore, the leks counted earliest in the history of Greater Sage-Grouse monitoring in Utah were either large leks and/or easily accessible leks (e.g., near roads). In the last 20 years in Utah and throughout the West, efforts to count and find leks have increased substantially (though there is variation in the number of leks counted, up and down, each year). With these concerted efforts to find new leks, new and generally smaller leks

were added to the list of known leks. Consequently, by adding primarily small leks to the overall state "average males per lek", the state average males per lek decreases even though more birds and more leks are being counted. In addition, where graduate students have studied Greater Sage-Grouse populations, new leks have been found as a result of the amount of time on the landscape and radio-telemetry information. From these increased efforts, the number of leks counted has increased from 14 leks in 1959, 99 leks in 1980, up to 362 leks in 2012 (2,485 percent increase) (UDWR 2009). Similarly, the total number of birds counted in a spring has increased, based on State of Utah data, from 451 males in 1959 to 3,231 males counted in 2012 (616 percent increase).

ADAPTIVE MANAGEMENT TRIGGERS

This overarching adaptive management strategy includes the identification of a two-tiered system of triggers (soft and hard) for both Greater Sage-Grouse populations and habitat. These triggers are not specific to any particular project, but identify population and habitat thresholds which, if exceeded/tripped, would result in a change in how the BLM addresses management of Greater Sage-Grouse in that area. Triggers have been based on the two key metrics that are regularly monitored: population declines and habitat loss.

Soft triggers represent an intermediate threshold indicating that management changes are needed to address habitat or population losses before they become severe. They represent a "caution" signal that changes outside the normal range of variation may be occurring. If a soft-trigger is tripped, monitoring data would be evaluated and management would be implemented to stop further declines.

Hard triggers represent a threshold indicating that more direct and refined actions are quickly needed to stop a severe deviation from Greater Sage-Grouse conservation objectives set forth in the BLM plan. The intent of a soft-trigger is to identify changes in management at a point where further losses could be avoided; given this, there is no expectation of hitting a hard trigger. If unforeseen circumstances occur that trip either a population or habitat hard trigger, more restrictive management will be required.

The changes in management required after a trigger is tripped are included below in the "Management Response" section. The following sections present the adaptive management triggers, organized first by the metric being addressed (population or habitat) and then by the associated soft and hard triggers.

Population Triggers

When evaluating population-based adaptive management triggers, this adaptive management strategy includes consideration of two aspects of population data to ensure that one set of data, if in error for any reason, would not unnecessarily trigger management changes. Population declines will be evaluated using the following two metrics:

- Population trends based on "trend leks," and
- Population growth as indicated by Lambda (λ) (as described below) from one year to the next for monitoring associated with all leks within a priority habitat management area (PHMA).

Trend leks are either leks that have been surveyed consistently in the last 20 years or leks that provide spatial representation within PHMA. Twenty years was chosen as the appropriate time period to identify

trend leks with consideration of the cyclic nature of Greater Sage-Grouse populations, and to capture monitoring results during the period of time when lek counts were conducted more consistently, and when lek count protocol was more standardized. The Utah Greater Sage-Grouse lek counts appear to have been in a low oscillation in the mid-1990s and again in the last few years (2011). During this same time period, standard lek count protocol use was increasing. Criteria for the trend leks are below:

- Starting with 1996, a lek that had > 1 male counted within one of 5 years between 1994-1998,
- Lek counts have occurred on 80 percent of the years since 1994 (16 years), AND
- Lek counts on 50 percent of the years are > 1 (8 of 16), OR
- A lek provides spatial representation (in the case of small populations, all leks may be included).

Lambda (λ) is the population change from a given Year 1 to the following Year 2 by dividing the total PHMA males counted in Year 2 by the total males counted in Year 1. If the result equals one (1), there was no change in the population level. A lambda that exceeds one (> 1) means the population is growing. A lambda that is less than one (< 1) indicates a declining population. To generate a consistent and comparable number, lambda can only be calculated on leks that are counted in consecutive years. This is to ensure that the increase in number of leks does not skew population data. This way, lambda can only be calculated for a lek if it is counted in 2 consecutive years. Some examples of calculating lambda are as follows:

- Males in Year 2/males counted in Year 1 = Lambda (λ)

  Example A – No Change in Population: Assuming in 2000, the total males counted on leks in PHMA is 350 and in 2001, on the same leks counted in 2000, the total males counted are 350.

- 350/350 = 1; since lambda is 1, the population is unchanged.

  Example B: Increasing Population: Assuming in 2000, the total males counted on leks in PHMA is 350 males and in 2001, on the same leks counted in 2000, the total males counted are 430.

- 430/350 = 1.23; since lambda is > 1, the population is increasing.

  Example C: Decreasing Population: Assuming in 2000, the total males counted on leks in PHMA is 350 males and in 2001, on the same leks counted in 2000, the total males counted are 280.

- 280/350 = 0.8; since lambda is < 1, the population is decreasing.

Multiple population triggers were established to account for different potential population trends for which management and monitoring should respond. This includes triggers to address rapid short-term declines in a population, as well as persistent long-term decreases of both trend leks or all monitored leks (using lambda - λ).

Population Soft Triggers

A population soft trigger would be met in PHMA if any one of 1a, 1b, 1c, or 1d are met, AND number 2 is also met:

1a) 4 consecutive years of 10 percent or greater annual decline in average males per lek in each year, based on "trend leks"; **OR**

1b) 6 consecutive years of declining average males per lek in each year, based on "trend leks"; **OR**

1c) 40 percent or greater decline in average males per lek in any single year, based on "trend leks"; **OR**

1d) 50 percent or greater decline in average males per lek in a 4 consecutive year period, based on "trend leks"; **AND**

2) Lambda of less than 1 in 4 consecutive years, based on all leks in the PHMA. Using criteria 1c, the 40 percent decline in a single year may occur at any point of the four year lambda monitoring window (year one, two, three or four).

For PHMA in the Ibapah and Hamlin Valley population areas, if a Greater Sage-Grouse population adaptive management trigger (hard or soft) from a Nevada land use plan is met on Greater Sage-Grouse habitat in Nevada that is adjacent to the Ibapah or Hamlin Valley PHMA, a soft trigger would be met for the Utah areas, regardless of whether the above criteria have been met or not.

The management to be applied if the soft trigger criteria are met is identified below under the Management Response header. The intent of the population soft trigger is to identify changes to population trends and adjust management before a hard trigger is met.

Population Hard Triggers

A population hard trigger would be met in PHMA if any one of the following criteria (a-d) is identified through monitoring:

Short-term Decline

a) 4 consecutive years of 20 percent or greater annual decline in average males per lek in each year, based on "trend leks"; **OR**

b) average males per lek, based on trend leks, drops 75 percent below the 10-year rolling average males per lek in any single year (not a 75 percent decrease, but a decline under 75 percent of the 10-year rolling average); **OR**

Long-term Decline

c) Lambda of less than 1 in 6 consecutive years, based on all leks within the PHMA; **OR**

d) Lambda of less than 1 in 8 years of a 10-year window, based on all leks within the PHMA.

The management to be applied if the hard trigger criteria are met is identified below under the Management Response header. Any change in management would only apply to the PHMA where the trigger is tripped.

Habitat Triggers

The adaptive management approach also includes triggers based on Greater Sage-Grouse habitat. Habitat quality is addressed by adherence to the objectives contained in the plan amendment. The adaptive management triggers for habitat is based on the availability of habitat within PHMA, measured using a percent of habitat loss from a baseline of available Greater Sage-Grouse habitat at the signing of the final plan amendments.

Available habitat will be mapped within each PHMA using available information such as vegetation data from satellite imagery (e.g., reGAP, LANDFIRE), local monitoring, soils data, etc. As additional information is made available in the future it can be used to refine the baseline habitat areas that existed at the point the plan amendments are finalized (e.g., removing areas of high juniper density, cliffs, salt-desert scrublands). However, any such changes should reflect habitat as it occurred at the signing of the plan amendments and not reflect changes to habitat from that time. Changes from the baseline acreage could occur through either the addition of habitat (e.g., juniper reduction projects) or reduction of habitat (e.g., wildfire). In either case, the percentages identified in the triggers are generated by comparing the availability of habitat at a point in time to the acres of habitat available at the signing of the plan amendments.

For both soft and hard triggers, nesting areas will be delineated using lek buffers based on published peer-reviewed data, unless local nesting areas have been specifically mapped by BLM and Forest Service and UDWR biologists using telemetry or other methods with appropriate sampling across the population. Wintering areas will be identified using UDWR mapping, in coordination with BLM and Forest Service biologists.

Habitat Soft Triggers

A habitat soft trigger would be met in PHMA if one of the following criteria is identified through monitoring:

a) 10 percent loss of total Greater Sage-Grouse habitat in PHMA; **OR**

b) 10 percent loss of habitat within nesting areas in PHMA; **OR**

c) 5 percent loss of habitat within UDWR mapped wintering areas in PHMA; **OR**

d) any one fire that burns 5 percent of total Greater Sage-Grouse habitat in PHMA.

For PHMA in the Ibapah and Hamlin Valley population areas, if a Greater Sage-Grouse habitat adaptive management trigger (hard or soft) from a Nevada land use plan is met on Greater Sage-Grouse habitat in Nevada that is adjacent to the Ibapah or Hamlin Valley PHMA, a soft trigger would be met for the Utah areas, regardless of whether the above criteria have been met or not.

The management to be applied if the soft trigger criteria are met is identified below under the Management Response header. The intent of the population soft trigger is to identify decreases in the availability of Greater Sage-Grouse habitat and adjust management before a hard trigger is met.

Habitat Hard Triggers

a) 20 percent loss of total Greater Sage-Grouse habitat in PHMA; **OR**

b) 20 percent loss of habitat within nesting areas in PHMA; **OR**

c) 20 percent loss of habitat within UDWR mapped wintering areas in PHMA.

The management to be applied if the hard trigger criteria are met is identified below under the Management Response header. Any change in management would only apply to the PHMA where the trigger is tripped.

MANAGEMENT RESPONSE

To be successful, an adaptive management strategy couples a change in management direction to an identified change in resource condition (e.g., meeting an identified trigger). The type of management response would vary whether a soft trigger is met versus a hard trigger. The larger deviation from natural variation associated with a hard trigger would necessarily correspond with a greater change in management.

The adaptive change in management will be targeted to respond/resolve the cause of the observed change in resource condition, to the extent it can be determined. A causal factor may be associated with one of the threats the USFWS identified in its 2010 listing determination, though additional monitoring information and research may also identify other causes that could result in reaching population or habitat triggers. It is also important to note that while one or more factors may be associated with a habitat or population decline, directly attributing a change to a specific cause or causes may not be possible. The complexity of some interactions may make it difficult to establish a direct cause-and-effect relationship for a specific cause or causes. Many factors have been suggested as affecting Greater Sage-Grouse populations and habitats throughout the species' range. These factors can interact in numerous potential complex relationships, making the identification of "the" specific cause or causes difficult. It can be difficult to separate proximate factors from ultimate factors leading to population declines. Further, Greater Sage-Grouse populations that use habitat owned or administered by multiple jurisdictions (e.g., private, state, tribal, or other federal) could result in causes of population or habitat declines that are not able to be ameliorated by the BLM.

If direct cause or causes cannot be identified, the change in management may need to address multiple threats that were identified in the area where the trigger was been met in order to alter a negative trend. Absence of a clear cause is not justification to not take some action to reverse a trend.

Management Response to Meeting Soft Triggers

Upon an annual review of monitoring data, if it is apparent that soft trigger criteria have been met for an area (see Spatial Scale discussion below) the BLM will determine if there is a specific cause or causes that are contributing to the decline within six months of identifying that the trigger has been met. In

completing this evaluation, the BLM will coordinate with Greater Sage-Grouse biologists from multiple agencies, including UDWR, the Forest Service, USFWS, and/or NRCS. Through this coordination, the BLM will review available national, state-wide, and local data to determine if there is additional information that could identify the cause/causes of the declines. The BLM will also coordinate with field office/district and state agency specialists and local Greater Sage-Grouse working groups to identify additional information that could assist in identifying the cause/causes.

If it is determined that the decline is related to a natural population variation, no specific management actions would be required. However, if BLM management actions are determined to cause or contribute to the decline, the BLM will work with the appropriate State of Utah agency and public land users to identify and apply management to slow down or stop the population decline. Such measures would be applied by the BLM manager within their implementation-level discretion to mitigate the decline of populations and/or habitats to the area where the trigger has been met. These measures would apply more conservative or restrictive implementation conservation conditions, terms, or decisions within the agencies' discretion to mitigate the decline of populations and/or habitats. Such measures could also include other management actions which may require the need to amend the RMP to address the situation and modify management. If able to be identified, the management measures should address the specific causal factor(s) that resulted in the decline, with consideration of local knowledge and conditions.

Responses to soft triggers may require the adjustment of future project level/plan implementation activities in the short or long term, as consistent with the individual site-specific NEPA analyses. Soft trigger responses can come in the form of terms, conditions, design features, BMPs, or site-specific mitigation measures. Examples of soft trigger responses could include, but are not limited to:

- Extending seasonal restrictions for seasonal surface disturbing activities (provided as stipulations to a right-of-way grant or a condition of approval to an oil and gas lease),
- Reprioritizing wild horse and burro gathers;
- Applying sequential development after reclamation;
- Temporary area closures related to travel management; (2-year maximum);
- Modifying seasons of use for livestock grazing through annual permit authorizations; and/or
- Applying additional restrictions on discretionary activities, or reject the authorization if mitigation criteria cannot be met.

It is expected that monitoring and management in response to soft-triggers should preclude tripping a "hard" trigger, which signals more severe habitat loss or population declines.

Management Response to Meeting Hard Triggers

Hard triggers represent a threshold indicating that more direct and refined actions are quickly needed to stop a severe deviation from Greater Sage-Grouse conservation objectives set forth in the BLM plan. Upon documenting that a hard trigger has been met the BLM will review available and pertinent data, in coordination with Greater Sage-Grouse biologists from multiple agencies including Forest Service, UDWR, USFWS, and/or NRCS, to determine the causal factor(s) for the declines. The BLM and the team will also identify measures needed to address the causal factors and develop a corrective strategy

for the area where the trigger has been met. The corrective strategy would include the applicable changes identified in **Table I-1** that address the causal factor, and could also include other management actions, which may require the need to amend or revise the RMP to address the situation and modify management.

If determining the causal factor and development of a corrective strategy is not completed within six months of documenting that the trigger has been met, all the plan level responses identified in **Table I-1** will be applied until the causal factor analysis is complete. Upon completion of the causal factor analysis any responses that don't address the causal factor(s) would be removed. In developing a corrective strategy, managers may select changes in management that are identified in **Table I-1**, Specific Management Responses that have already been analyzed for implementation. This table also identifies which decision from the BLM RMPA would be changed.

Table I-1
Specific Management Responses

Program	Adaptive Management Response[1]	Affected Decision Number
Sage-Grouse Management	If a hard-trigger is tripped in the Sheeprocks Population Area, adopt the PHMA boundary from Alternative B of the 2015 Final EIS and apply management as described in the Proposed Plan, except as modified below.	Modify MA-SSS-1 specific to Sheeprocks
	PHMA within a Population Area (also referred to as a biologically significant unit {BSU}) where a soft trigger has been reached would be the top priority for habitat improvement and restoration projects and for fuels reduction treatments. Areas within and adjacent to PHMA within a Population Area (BSU) where a hard trigger has been reached would be the top priority for regional mitigation habitat restoration and fuels reduction treatments.	Adjust: MA-VEG-1, MA-FIRE-1, and MA-SSS-3A to address specific area
	Collaborate with applicable government entities to implement intensive programs to reduce populations of Greater Sage-Grouse predators (e.g., ravens, red fox, badgers, raccoons, skunks, raptors), focusing on area-specific predators to provide Greater Sage-Grouse populations the best opportunity to recover while improving habitat conditions.	Adjust MA-SSS-3D to focus on area-specific predators
Vegetation Management	PHMA within a Population Area (BSU), would be a priority for regional mitigation, habitat restoration and fuels reduction treatments.	Adjust: MA-VEG-1, MA-FIRE-1, and MA-SSS-3A to address specific area
Wild Horse and Burro Management	Initiate emergency gathers to reduce wild horse and burro populations within affected area to low end of AML, subject to funding and holding space availability. If the population is within AML and the area does not meet Greater Sage-Grouse habitat objectives, reduce AML for the HMA within the affected area up to 25 percent to facilitate meeting habitat objectives.	Adjust: MA-WHB-7, MA-WHB-3, and MA-WHB-4 to address specific area

Table 1-1
Specific Management Responses

Wildland Fire Management	Reassess Greater Sage-Grouse habitat needs to determine if priorities for at-risk habitats, fuels management areas, preparedness, suppression and restoration have changed.	Adjust MA-FIRE-1 to address specific area
Livestock Grazing	In areas where a soft trigger was met, prioritize the completion of rangeland health assessments to determine if the area is meeting Utah's Rangeland Health Standards and is achieving the Greater Sage-Grouse habitat objectives (Objective SSS-3). Focus monitoring and management activities on allotments found not to be achieving Utah's Rangeland Health Standards and that have the best opportunities for conserving, enhancing or restoring habitat for Greater Sage-Grouse. For areas not achieving the Greater Sage-Grouse habitat objectives (Objective SSS-3), apply one or more of the adjustments to livestock grazing from MA-LG-6.	Adjust: MA-LG-4 and MA-LG-5 to address specific area
Rights of Way – Existing Corridors	Retain the corridors as mapped, but limit the size of new lines within the corridors to same as existing structures.	Augment MA-LR-2 and MA-LR-4 with additional criteria
Rights of Way – Outside of Corridors	Management of the affected PHMA Population Area (BSU) would change to exclude high voltage transmission lines or major pipelines that the corrective strategy identifies. No change in management would be made to distribution lines or minor pipelines.	Augment MA-LR-2 with additional criteria
Wind Energy Development	No change from Proposed Plan.	Not applicable
Industrial Solar	No change from Proposed Plan.	Not applicable
Comprehensive Travel and Transportation Management	If travel management planning has not been completed within Greater Sage-Grouse habitat, PHMA areas where the hard trigger was met would be the highest priority for future travel management planning efforts. If travel management has been completed within Greater Sage-Grouse habitat in the PHMA where the hard trigger was met, re-evaluate designated routes to determine their effects on Greater Sage-Grouse. If routes are found to be causing population-level impacts, revise their designation status to reduce the effect.	Adjust: MA-TTM-4, MA-TTM-2, MA-TTM-5, and MA-TTM-3 to address specific area.
Fluid Minerals	No change from Proposed Plan.	Not applicable
Locatable Minerals	No change from Proposed Plan.	Not applicable
Salable Minerals	No change from Proposed Plan.	Not applicable
Nonenergy Leasable Minerals	No change from Proposed Plan.	Not applicable

Table 1-1
Specific Management Responses

[1]Any change in management would only apply to the PHMA where the trigger is tripped.
Unless otherwise noted as a soft trigger response, all Adaptive Management Responses would be implemented where a hard trigger is reached.

While implementing the corrective strategy, new scientific information may become available demonstrating that the plan-level response(s) could be insufficient to stop the severe deviation from Greater Sage-Grouse conservation objectives set forth in the BLM plan. If this occurs, the BLM and its partners will review the new scientific information to determine how it may change the causal factor analysis and corrective strategy. If the BLM, in coordination with its partners, concludes that the responses in place would be insufficient, the BLM will implement necessary management to protect Greater Sage-Grouse and its habitat and to ensure that conservation options are not foreclosed in the area where the trigger has been met.

For those Population Areas (BSUs) that are directly connected to identified BSUs in adjacent states (Box Elder, Hamlin Valley, Uintah, and Rich), if a hard trigger is reached on one of the connected BSUs outside of the Utah sub-region, the applicable state wildlife agencies and BLM staff will convene to determine the causal factor and propose project level responses, as appropriate, and discuss further appropriate actions that could be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC (in adjacent states) and will recommend the appropriate plan response. Adoption of any further actions at the plan level may require initiating a plan amendment process.

The management identified in the corrective strategy would be implemented until ten-year population trends reflect the natural fluctuations of a self-sustaining population. The BLM would determine the area reflects natural fluctuations for a self-sustaining population in coordination with Greater Sage-Grouse biologists from multiple agencies including Forest Service, UDWR, USFWS, and/or NRCS. Upon such a determination, the management would revert to the RMPA.

If all the leks in an area that has met a hard trigger are not active for ten years, becoming unoccupied by definition, the PHMA designation and all its associated management would be removed since there is no longer a greater sage-grouse population for which management should be prioritized.

MONITORING

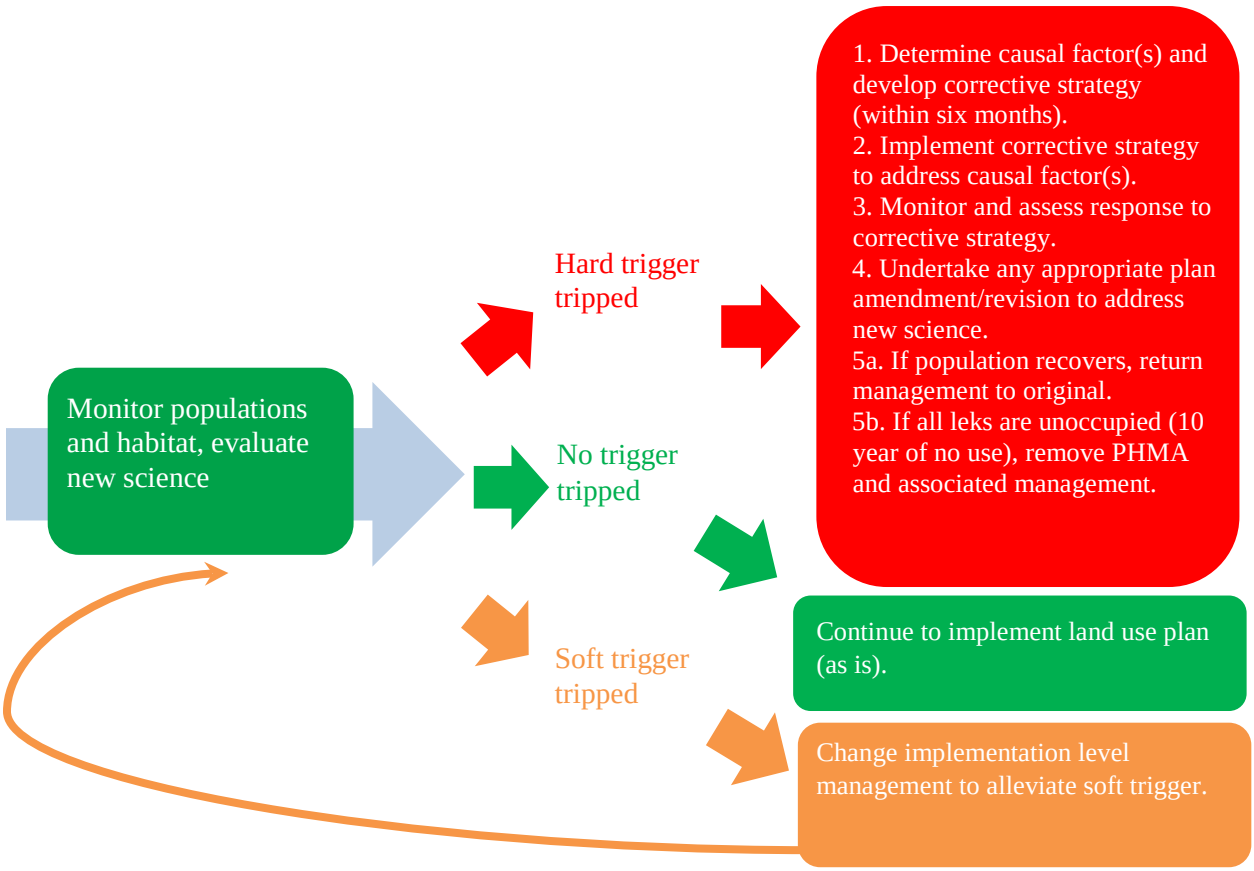
Monitoring is a critical part of implementing adaptive management. Through monitoring, the agencies determine when a trigger has been met, as well as whether management actions taken, including adaptive responses, are effective in increasing Greater Sage-Grouse habitat and populations. The following image shows how monitoring information will be integrated into implementation of the adaptive management plan.

This RMPA contains a Monitoring Framework Plan (**Appendix D**) that outlines monitoring of several aspects of Greater Sage-Grouse biological criteria and aspects of monitoring RMP effectiveness. The information collected through the Monitoring Framework Plan will be used by the BLM, among other available datasets, to determine when adaptive management hard and soft triggers for habitat are met.

The BLM will organize an adaptive management working group, inviting participation from the UDWR, Forest Service, USFWS, and/or local governments. This group will annually review monitoring information related to Greater Sage-Grouse populations and habitat availability to determine if an adaptive management trigger has been met.

The working group will evaluate Greater Sage-Grouse population data collected by the UDWR's lek counts, as well as habitat information available from the BLM's National Operation Center. Habitat information available from the BLM National Operation Center is based on remotely sensed sagebrush vegetation collected as part of the LANDFIRE Existing Vegetation Type layer. Habitat information may be adjusted based on locally available vegetation data, if agreed upon by all adaptive management working group members. However, the baseline for determining the percent loss for the purposes of the adaptive management triggers must remain associated with a consistent vintage, namely the finalization of the RMP-decisions. It is also important that the vegetation data remain at a scale consistent with implementation of the adaptive management plan (BSUs), and remain at such a consistent scale over time.

For any area that has met a soft or hard trigger, the BLM, the appropriate State of Utah agency, and other members of the technical team, will annually review monitoring data regarding population and habitat trends to verify that management actions implemented to mitigate declines are being successful. If monitoring indicates continued declines, the causal factor analysis will be reviewed, updated if needed, and applicable additional management would be identified and implemented.



SPATIAL SCALE

Greater Sage-Grouse biologists, assigned to the multi-agency adaptive management working group, will assess population and habitat adaptive management triggers for PHMA within each Population Area (also referred to as BSUs when coordinating with other states). A BSU is a geographical/spatial area that contains the relevant habitats that are used by Greater Sage-Grouse. In Utah, the BLM is applying adaptive management monitoring and management to the total PHMA area associated with a Greater Sage-Grouse population area. When coordinating with adjacent states in regional monitoring and management, these areas will be referred to as BSUs. These areas generally align with habitat areas within the State of Utah's Sage-Grouse Management Areas (SGMAs) with two adjustments. One adjustment includes some PHMA in the Carbon area that was not identified as an SGMA. Portions of the Anthro Mountain and West Tavaputs areas are combined with Emma Park area for adaptive management purposes. The other adjustment is the Emery population (Wildcat Knoll and Horn Mountain) that is combined with the Parker Mountain SGMA but will be considered separately because the population is small in size and effects to this population would be masked by what is going on in the much larger Parker SGMA. As a result, PHMA in the following areas will be monitored and evaluated for population and habitat adaptive management triggers: Box Elder, Rich, Uinta, Strawberry, Carbon, Emery, Parker, Panguitch, Bald Hills, Hamlin, Sheeprocks, and Ibapah. These areas generally represent population use areas within the sub-region.

As described in the Monitoring Framework Plan, habitat data can be collected at these "BSU" scales and can be both aggregated up to the state-wide population, WAFWA Management Zone, or other reporting units. Similarly, more specific habitat delineation may be gathered identifying specific seasonal use patterns and even daily movements and preferences. However, in monitoring landscape changes in habitat and effects on Greater Sage-Grouse populations, the interagency team of Greater Sage-Grouse biologists identified the Population Area/SGMA/BSU scale as best capturing the needed metrics at a meaningful and consistent scale. The boundaries of these and other reporting units may be adjusted over time based on the understanding of local population interactions and climate variation.

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Appendix K

Greater Sage-Grouse Habitat Baseline and Habitat Update Protocol

Appendix K. Greater Sage-Grouse Habitat Baseline and Habitat Update Protocol

BACKGROUND

Habitat for Greater Sage-Grouse is the most critical element in any efforts to manage and conserve the species in its range across the western United States. Consequently, considerable time and expense has been dedicated to identifying current, historical, and potential expansion of Greater Sage-Grouse habitat and how it functions to provide the life sustaining elements for the species. Conservation of habitat is the foundation for this resource management plan amendment (RMPA). Any Greater Sage-Grouse conservation effort in Utah, as stated in the Conservation Plan for Greater Sage-Grouse in Utah (State Conservation Plan; UDWR 2013), must be "designed to protect high-quality habitat, enhance impaired habitat and restore converted habitat to support, in Utah, a portion of the range-wide population of Greater Sage-Grouse necessary to eliminate threats to the species."

According to Manier et al. (2013), Greater Sage-Grouse are currently estimated to occupy 165 million acres (668,000 square kilometers) across the western United States and Canada (Knick and Connelly 2011), and this range encompasses tremendous variability in habitat conditions, anthropogenic activities, and Greater Sage-Grouse populations. Development of comprehensive monitoring approaches leads to formal recognition that habitat selection assessments are needed to utilize approaches that address multiple spatial scales to represent selection processes of the animals (Connelly et al. 2003; Stiver et al. 2010). The first-order (1) is the broad geographic range that defines the species distribution Greater Sage-Grouse (2) characterization of the second-order hinges on large, relatively intact regions of habitat identified using populations or subpopulation distributions (for example, geographic connections among leks or regional population connectivity using genetics) to link habitats to Greater Sage-Grouse use. The third-order (3) requires refinement from delineations of populations/subpopulations within the species range in a given area to availability of the seasonal habitats (for example, nesting and winter habitats), and connectivity of seasonal habitats to support migration. Finally, assessment can be made of fourth-order selection (for example, daily site selection and behavioral observations) by (4) quantifying food and cover attributes and foraging behavior at particular sites. In practice, selection of food items is nested within selection of the feeding site because selection of a particular site determines the array of food items available to be selected; importantly, habitat value and use will best be determined using a combination of these characteristics (not one alone). To accurately characterize Greater Sage-Grouse habitat/range selection for a given population at the first- and second-orders, or landscape spatial scales, the migratory nature (seasonal movements) of the population must be well understood (Connelly et al. 2000), and this may include very large areas on an annual basis. It has been suggested that migratory populations may range across hundreds of square miles (Connelly et al. 2003).

HABITAT IDENTIFICATION PROCESS

The UDWR is the primary entity responsible for management of Greater Sage-Grouse populations in Utah and is also the lead entity in identifying and mapping Greater Sage-Grouse distribution. Information on the distribution identification process followed in Utah was summarized and is included in the Utah

Greater Sage-Grouse Management Plan (State Management Plan; UDWR 2009). Although this plan has been superseded by the State Conservation Plan, the now dated Management Plan provides relevant information on the habitat identification process.

Following Doherty's work in Wyoming, Montana, and Colorado (Doherty 2008), core Utah Greater Sage-Grouse breeding habitats were mapped. The mapping was accomplished utilizing occupied lek densities and associated male Greater Sage-Grouse maximum lek attendance data for the period 1999–2008 (10 years), referred to as the breeding bird density mapping. The breeding bird density mapping identified four density levels or parameters. The first parameter identified areas where 25 percent of the state's total 10-year average spring breeding Greater Sage-Grouse males (indicator for populations) are located. These areas symbolize the highest statewide density of breeding males on leks and can also be viewed as high-priority leks or those leks and associated habitats that individually contribute the most to the state's Greater Sage-Grouse total population. The second parameter identified areas where 50 percent of the state's total breeding Greater Sage-Grouse males are found. This was repeated for the 75 percent and 100 percent of spring breeding Greater Sage-Grouse males until all occupied leks were classified. Viewed from the converse, the total known spring Greater Sage-Grouse statewide population was indicated by the combined area of all parameters.

The breeding bird density mapped habitat was further refined over time as additional population and habitat area inventory, studies, and other information were available. This included information provided by other field specialists, other agencies, local and special interest groups, private landowners, and academia. Adjustments to habitat boundaries have been made based on verified information. The mapped seasonal habitat boundaries in each population area are intended to include areas currently used by a population or populations of Greater Sage-Grouse and are based upon the location of occupied leks, the identification of nesting and brood-rearing habitat, and associated winter and other habitat.

For decades prior to the current review, the UDWR has been supporting research and community-based conservation efforts to learn more about the ecology of the species. Appendix 8 of the State's 2013 Conservation Plan contains a listing of research studies and reports on Greater Sage-Grouse conducted in Utah. To facilitate this effort, the UDWR established ten Local Area Working Groups under the general direction of Utah State University, with the first established as far back as 1996. These Local Area Working Groups were composed of private interests and governmental entities, and were tasked to assess the local nature and scope of the threats to the species, and to recommend a course of action to address those threats. Because of this early and ongoing assessment, the State of Utah is fortunate to have a high level of knowledge about many of the populations, including seasonal range, migration routes, and other factors known to be essential to maintenance of the species, all in the context of Utah's unique conditions.

Greater Sage-Grouse distribution in Utah is highly influenced by the geography of Utah, which is characterized by mountainous terrain, separated by broad valleys in the Great Basin, and by deeply incised canyons in the Colorado Plateau. Greater Sage-Grouse habitat may be found in intact blocks in the Great Basin, or in disconnected "islands" of habitat in the Colorado Plateau.

The UDWR's seasonal habitat maps are intended to encompass the range used throughout the year by known Greater Sage-Grouse populations. Broad based maps that identify the Greater Sage-Grouse range are necessary to include a variety of important seasonal habitats and movement corridors that are spread across Utah's geographically diverse and naturally fragmented landscape. Greater Sage-Grouse, frequently described as "landscape-scale species," may use multiple areas to meet seasonal habitat needs throughout the year and the resulting patchwork of habitats (e.g., winter, breeding, nesting, early brood-rearing, late brood-rearing, transitional, and movement corridor habitats) can encompass large areas, sometimes ranging between 180,000 and 1.2 million acres. Broad range maps increase the likelihood that all seasonal habitats (including transition and movement corridors) are included, especially where there are information gaps on Greater Sage-Grouse populations' habitats. Inevitably these Greater Sage-Grouse range maps include a patchwork of Greater Sage-Grouse habitats and non-habitats. Non-habitats, in and of themselves, may not provide direct habitat value for Greater Sage-Grouse (e.g., deep canyons or water bodies), but may be crossed by Greater Sage-Grouse when moving between seasonal habitats.

There are approximately 7.3 million acres mapped as Greater Sage-Grouse range throughout Utah. According to state-wide LANDFIRE vegetation data reflecting existing vegetation, there are 3.1 million acres (approximately 41%) of these areas that are associated with vegetation communities that do not include sagebrush as either the dominant vegetation type or as a primary component species of the vegetation community.

While areas mapped as Greater Sage-Grouse range encompass seasonal habitats and transition zones for Greater Sage-Grouse, they are also interspersed with areas that do not provide direct habitat at the site-scale (sagebrush) but may provide dispersal options or seasonal migration opportunities. Ninety-nine percent of the data pixels that comprise the 3.1 million acres of non-sagebrush vegetation types are less than 50 acres, reflecting the nature of habitat comprised of multiple interspersed vegetation types that often intermingle; however, the remaining 1 percent of the data pixels that comprise the 3.1 million acres represent areas that are larger than 50 acres and include nearly 86 percent of the area lacking a sagebrush component within the mapped occupied areas. This accounts for nearly 2.6 million acres of vegetation within Utah's Greater Sage-Grouse range that does not provide the necessary sagebrush components for Greater Sage-Grouse site-scale habitat needs. However, these areas may still provide important contributions to the mid- and fine-scale habitat levels for large, intact areas that are needed to support Greater Sage-Grouse populations. Such a determination would need to be made on a case-by-case basis following a multi-scale habitat assessment.

In short, the range boundaries were drawn on a broad scale, thus they include substantial amounts of interspersed areas of habitat and non-habitat. Most of the areas of non-habitat are predominantly small tracts that could be used for transitional zones or that could be affected by public land uses, in concert with adjacent tracts of habitat. However, some of these non-habitat areas are so large that they are unlikely to provide habitat for Greater Sage-Grouse populations.

To assist in refining Greater Sage-Grouse seasonal habitat in Utah, telemetry and GPS data have been collected for a portion of the Greater Sage-Grouse populations in the state. Telemetry and GPS data provide the UDWR with site-specific data on how Greater Sage-Grouse use the landscape. Telemetry

information provides a snapshot of how Greater Sage-Grouse used the landscape in specific years but does not necessarily represent how those same birds use the landscape every year, or what areas other individual birds may use. In general, maps are refined as additional information on habitat conditions, Greater Sage-Grouse habitat use patterns, population susceptibility to stochastic events, and impacts of vegetation treatment are available. BLM and DWR biologists would determine habitat availability using information that may include site visits, telemetry data, documented quantitative or qualitative habitat assessments, vegetation and soils mapping, or other inputs that may inform habitat presence/absence.

In summary, broad maps are more likely to include all seasonal habitat areas important for each population and can be refined as management agencies gain more information. While occupied habitat maps were used as a baseline for the 2015 RMPA/EIS, through on-the-ground information it is clear those maps include known use areas, as well as areas of potential habitat and areas of non-habitat.

PLANNING REQUIREMENTS

Though the BLM manages the habitat for wildlife species, the UDWR is the agency primarily responsible for managing Greater Sage-Grouse in Utah. In the past, the UDWR has been the primary repository for information regarding Greater Sage-Grouse habitat in Utah. The range maps represent a broad combination of information sources, including intact sagebrush areas, field observations, radio-telemetry data, historic habitats, professional judgment, and sagebrush areas adjacent to the previously mentioned areas. Since telemetry data have not been collected for every Greater Sage-Grouse population in the state, to refine the broader identified ranges, the aforementioned other sources of information are used in conjunction with telemetry and GPS data to create the Greater Sage-Grouse range maps. For the BLM's purposes of maintaining and enhancing Greater Sage-Grouse persistence on the landscape, all Greater Sage-Grouse range identified and mapped by the UDWR is included as the baseline for planning to ensure that all habitats that are or may be necessary for long-term Greater Sage-Grouse persistence are including for assessment and evaluation in the planning process. However, the identification and mapping of Greater Sage-Grouse habitat is an ongoing effort.

The Greater Sage-Grouse habitat maps used as a baseline for the land use planning process are not intended to represent a survey-grade boundary of Greater Sage-Grouse habitat and are not expected to be exclusively used at the project level. In this sub-regional RMPA, the BLM is making broad-scale land use planning decisions that are connected with similarly broad-scale RMPAs across the range of Greater Sage-Grouse (see Section 1.1 of the 2015 Final EIS). Based on the scale of planning (landscape level), baseline habitat represented in this RMPA primarily represents a portion of the first and the second order habitat within Utah discussed in the background section above.

Not only is the scale of mapping appropriate given the scale of planning, but it is also appropriate given the stated goals and objectives of this RMPA/EIS. Through this planning process the BLM aims to not only stop the decline of Greater Sage-Grouse populations, but to increase habitat availability and population size and distribution.

HABITAT UPDATES

As expressed in the 2013 State Conservation Plan for Utah, the implementation of any plan should be accompanied by efforts to refine mapping of habitats, which includes this RMPA/EIS. These efforts should

be coordinated among federal, state, and local agencies; private landowners; Greater Sage-Grouse working groups; and academia that may choose to participate. On-the-ground projects should also contribute to this refined habitat mapping effort, at a level commensurate with the decisions to be made.

Habitat map updates will be made when agencies with special expertise and legal jurisdiction for Greater Sage-Grouse and their habitat gain more information on the presence/absence of Greater Sage-Grouse; obtain new or additional baseline population data, including information on the distribution and connectivity of Greater Sage-Grouse populations with other populations; identify Greater Sage-Grouse seasonal habitats and movements; and identify and quantify sagebrush habitats, the condition of those habitats, and connectivity within populations.

While refinements to habitat maps are necessary and appropriate, the RMPA includes management that gives the agency discretion to authorize actions in non-habitat areas under identified conditions. This eliminates the need to make constant site-specific adjustments to Greater Sage-Grouse habitat management area boundaries through the land use planning processes, which is neither consistent with the landscape nature of management actions in the BLM RMPs, nor consistent with application of conservation measures at a scale and timing needed to protect Greater Sage-Grouse.

Prior to considering proposed actions within Priority Habitat Management Areas (PHMA), an evaluation should be conducted by a qualified biologist in collaboration with federal and state biologists, including a field investigation if needed. To this end, additional site-specific information associated with local surveys could result in a more precise delineation of habitat boundaries. If during implementation of the RMPA or evaluation of a proposed action there are discrepancies between the LUP maps and the on-the-ground conditions, the on-the-ground information should be used to determine where the management included within this RMPA/EIS would apply. A similar site-specific review process has been effectively employed while Greater Sage-Grouse habitats were under interim management, allowing proposed projects in areas identified as non-habitat to proceed.

When considering new or local information for application of management actions, the goal is to provide a transparent and consistent scientific-based process for adjusting Greater Sage-Grouse habitat that will promote conservation of Greater Sage-Grouse in Utah. To that end, the following would be considered when updating the Greater Sage-Grouse habitat delineations:

Seasonal Habitat

- Determination of adjustments in the delineation of mapped seasonal Greater Sage-Grouse habitats would be coordinated among federal, state, and local agencies; academia; and technical specialists through a Greater Sage-Grouse Working Group.
- Adjustments in mapped Greater Sage-Grouse seasonal habitats will be based on the best available information, including field observations and inventories, radio-telemetry data, GPS collar data, habitat assessments, site visits, supporting research and science, restoration treatments, disturbance, technical expertise, and accepted modeling (including ground-truthing).
- Review of Greater Sage-Grouse mapped seasonal habitats and proposed adjustments could occur anytime there is a need to adjust the habitat baseline. At a minimum, the BLM would

evaluate the mapped seasonal habitat boundaries approximately every 5 years in conjunction with land use plan evaluations.

- In general, mapped seasonal habitat boundaries would not be adjusted to exclude non-habitat areas if those areas of non-habitat are wholly contained in the mapped seasonal habitat boundaries, considering the level of habitat identification needed commensurate with the level of decision-making.
- Habitat altered by fire would not be removed as seasonal habitat. If the BLM, in consultation with other agencies, determines that rehabilitation or restoration of mapped seasonal Greater Sage-Grouse habitat is not feasible and that the area no longer contributes to any part of the Greater Sage-Grouse life cycle, adjustments may be made to exclude the area.
- Determinations on adjustments to mapped Greater Sage-Grouse seasonal habitat would be by consensus of the Greater Sage-Grouse Working Group.

Priority Habitat Management Areas

- Because PHMA boundaries are a land use plan action, adjustments are a BLM responsibility and will comply with the applicable BLM planning regulations and policies.
- Adjustments in delineation of PHMA would be coordinated among federal, state, and local agencies and interested parties.
- Adjustments in delineation of PHMA would be based on the best available information, including field observations and inventories, radio-telemetry and GPS data, habitat assessments, site visits, supporting research and science, restoration treatments, disturbance, technical expertise, and accepted modeling (including ground-truthing).
- Review of PHMA boundaries would generally be done every 5 years (for the BLM, this would be in conjunction with land use plan evaluations), unless more frequent adjustments are needed.
- Consistent with landscape-level decision making, PHMA would be identified at a second-order level (Manier et. al. 2013), and as such, boundaries would generally not be adjusted to exclude non-habitat areas if those areas are wholly contained within the LUP-identified boundaries.
- Areas within PHMA that are not currently used by Greater Sage-Grouse, but are ecologically capable of supporting Greater Sage-Grouse, would not be removed from PHMA boundaries.
- The Greater Sage-Grouse Working Group would make adjustment recommendations to PHMA to the BLM Utah State Director, who will make the final determination on whether the PHMA boundary adjustment is appropriate.
- New areas of mapped Greater Sage-Grouse seasonal habitat could be identified as PHMA following the appropriate BLM planning rules and procedures. The administrative process through which boundary adjustments will be made would be determined on a case-by-case basis.

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