
Chapter 2

Alternatives

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CHAPTER 2

PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The LUPA/EIS complies with NEPA, which directs the BLM and Forest Service to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources...” (NEPA Section 102[2][e]). At the heart of the alternative development process is the required development of a range of reasonable alternatives. Public and internal (within BLM and Forest Service) scoping (see **Section 1.5**, Scoping and Identification of Issues for Development of Draft Alternatives) identified issues that present opportunities for alternative courses of action, while the purpose and need for action described in **Section 1.2**, Purpose of and Need for the Land Use Plan Amendments, provides sideboards for determining “reasonableness.”

This chapter introduces and details the Proposed Plan. The Proposed Plan is a mix of management actions selected from the range of alternatives in the Draft LUPA/EIS and is based on best science, public scoping comments, public comments on the Draft LUPA/EIS, and internal agency discussion. The alternatives that were in the Draft LUPA/EIS are also included in this chapter. These include the No Action Alternative, which would continue the existing policies of the BLM and Forest Service; three action alternatives; and the alternatives considered but eliminated from detailed analysis.

The identification of the Preferred Alternative in the Draft LUPA/EIS did not constitute a commitment or decision in principle, and there is no requirement to select the Preferred Alternative or any of the separate alternatives presented in the Draft LUPA/EIS in the Final LUPA/EIS as the Proposed Plan. The BLM and Forest Service have the discretion to select any of the alternatives as their Preferred Alternative in the Draft LUPA/EIS. The agencies also have the discretion to modify the Preferred Alternative between the Draft EIS and the Final EIS into the Proposed Plan. The modifications are allowable as long as the

actions presented in the Proposed Plan within the Proposed LUPA/Final EIS within the range of alternatives analyzed in the Draft EIS. The various parts of the separate alternatives that were analyzed in the Draft EIS can be “mixed and matched” to develop an alternative – known as the Proposed Plan – in the Final EIS, as long as the reasons for doing so are explained (40 CFR 1506.2(b)).

2.2 CHANGES BETWEEN THE DRAFT LAND USE PLAN AMENDMENT/ ENVIRONMENTAL IMPACT STATEMENT AND THE PROPOSED LAND USE PLAN AMENDMENT/ FINAL ENVIRONMENTAL IMPACT STATEMENT

As a result of public comments, best science, cooperating agency coordination, and internal review of the Draft LUPA/EIS, the BLM and Forest Service have developed the Proposed LUPA/Final EIS for managing BLM-administered and National Forest System lands in the Northwest Colorado sub-region. The Proposed LUPA/Final EIS focuses on addressing public comments, while continuing to meet the BLM’s and Forest Service’s legal and regulatory mandates. The Proposed LUPA/Final EIS is a variation of the preferred alternative (Alternative D) and is within the range of alternatives analyzed in the Draft EIS.

Changes made to the Proposed LUPA/Final EIS from the preferred alternative (Alternative D) in the Draft LUPA/EIS are:

- Allocations for PHMA and GHMA—Allocations in the Proposed LUPA/Final EIS provide more opportunities for uses in GHMA, while still maintaining conservation management by establishing screening criteria for project/activity review in GRSG habitat (see **Appendix H**, Guidelines for Implementation).
- USGS Buffer Study—The Proposed LUPA includes a management action to incorporate the lek buffer distances identified in the USGS report, *Conservation Buffer Distance Estimates for Greater Sage Grouse—A Review: USGS Open File Report 2014-1239* (Mainer et al. 2014), during NEPA analysis at the implementation stage. Although the buffer report was not available at the time of the Draft EIS, applying these buffers was addressed in the Draft EIS and is qualitatively within the spectrum of alternatives analyzed. Accordingly, the management decision to require analysis of lek buffers for development within certain habitat types is within the range of alternatives analyzed.
- Adaptive management—The Proposed LUPA identifies hard and soft adaptive management triggers for population and habitat and identifies appropriate management responses. Chapter 2 of the Draft EIS identified that the BLM/Forest Service would further develop the adaptive management approach by identifying hard and soft triggers and responses. All of the adaptive management hard trigger responses were analyzed within the range of alternatives.

For example, if a hard trigger is reached in GHMA, and GHMA would be managed as open to saleable minerals in the Proposed LUPA, the response would be to manage it as closed to saleable minerals. This closure was analyzed under Alternative C in the Draft EIS.

- **Monitoring and Disturbance**—The monitoring framework was further refined in the Final EIS, and further clarification about how disturbance cap calculations would be measured were developed. During the Draft EIS public comment period, the BLM received comments about how monitoring and disturbance cap calculations would occur at implementation. The Draft EIS outlined the major components of the monitoring strategy and provided a table portraying a list of anthropogenic disturbances that would count against the disturbance cap. A BLM and Forest Service disturbance and monitoring sub-team further enhanced the two appendices (**Appendix E and F**) in the Final EIS.
- **Mitigation Strategy; Net Conservation Gain**— The Proposed LUPA provides for a net conservation gain standard of mitigation when the BLM and Forest Service authorize activities in PHMA. The net conservation gain strategy is in response to the overall landscape-scale goal to enhance, conserve, and restore GRSG and its habitat. All of the action alternatives provided management actions to meet the landscape-scale goal.
- **WAFWA MZ Cumulative Effects Analysis on GRSG**—A quantitative cumulative effects analysis for GRSG is included in the Final EIS. This analysis was completed to analyze the effects of management actions on GRSG at a range-wide biologically significant scale, which was determined to be the WAFWA MZ. The Draft EIS, in Chapter 4 (Environmental Consequences), included a qualitative analysis and identified that a quantitative analysis would be completed for the Final EIS at the WAFWA MZ scale.
- **Forest Service LUPA**—Chapter 2 separates the Forest Service Proposed LUPA and the BLM Proposed LUPA. The Forest Service has different guidance for writing planning language; however, the actions are the same for both the BLM and Forest Service under the Proposed LUPA.
- **Public Comment on Draft EIS**—The Final EIS is updated based on public comment received on the Draft EIS (**Appendix P**, Response to Comments on the Draft Land Use Plan Amendment/Environmental Impact Statement).
- For an additional list of changes between the Draft EIS and Final EIS, see Chapter 1, **Section 1.10**, Changes Between the Draft Land Use Plan Amendment/Environmental Impact Statement and the

Proposed Land Use Plan Amendment/Final Environmental Impact Statement.

The NEPA requires agencies to prepare a supplement to the Draft LUPA/EIS if: 1) the agency makes substantial changes in the proposed action that are relevant to environmental concerns; or 2) if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. A supplement is not necessary if a newly formulated alternative is a minor variation of one of the alternatives and is qualitatively within the spectrum of alternatives analyzed in the Draft LUPA/EIS.

The Proposed LUPA includes components of the alternatives analyzed in the Draft LUPA/EIS. Taken together, these components present a suite of management decisions that present a minor variation of alternatives identified in the Draft LUPA/EIS and are qualitatively within the spectrum of alternatives analyzed.

The BLM and Forest Service have determined that the Proposed LUPA is a variation of Alternative D and that its impacts would not affect the human environment in a substantial manner or to a significant extent not already considered in the EIS. The impacts disclosed in the Proposed LUPA/Final EIS are similar or identical to those described in the Draft LUPA/EIS.

2.3 INTRODUCTION TO DRAFT ALTERNATIVES

LUP decisions consist of identifying and clearly defining goals and objectives (desired outcomes) for resources and resource uses, followed by developing allowable uses and management actions necessary for achieving the goals and objectives. These critical determinations guide future land management actions and subsequent site-specific implementation actions to meet multiple use and sustained yield mandates while sustaining land health.

2.3.1 Components of Alternatives

Goals are broad statements of desired (LUP-wide and resource- or resource-use-specific) outcomes and are not quantifiable or measurable. Objectives are specific measurable desired conditions or outcomes intended to meet goals. Goals and objectives can vary across alternatives, resulting in different allowable uses and management actions for some resources and resource uses. Forest Service objectives are also time specific.

Management actions and allowable uses are designed to achieve objectives. Management actions are measures that guide day-to-day and future activities. Allowable uses delineate which uses are permitted, restricted, or prohibited, and may include stipulations or restrictions. Allowable uses also identify lands where specific uses are excluded to protect resource values, or where certain lands are open or closed in response to legislative, regulatory, or policy requirements. Implementation decisions are site-specific on-the-ground actions and are typically not addressed in LUPs.

On National Forest System lands, forest plans guide management activities and contain desired conditions and objectives as well as standards and guidelines that provide direction for project planning and design. Desired conditions are descriptions of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Standards are mandatory constraints on project and activity decision making. Not meeting a standard would require a site-specific Forest Plan amendment. A guideline is a constraint on project and activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met.

2.3.2 Purpose of Alternatives Development

Land use planning and NEPA regulations require the BLM and Forest Service to formulate a reasonable range of alternatives. Alternative development is guided by established planning criteria (as outlined for the BLM at 43 CFR 1610) (see **Chapter I**).

The NEPA regulations at 40 CFR Part 1501.2(c) state that federal agencies shall: “Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflict concerning alternatives uses of available resources....”

The basic goal of alternative development is to produce distinct potential management scenarios that:

- Address the identified major planning issues;
- Explore opportunities to enhance management of resources and resource uses;
- Resolve conflicts among resources and resource uses; and
- Meet the purpose of and need for the LUP or LUPA.

Pursuit of this goal provides the BLM, Forest Service, and the public with an appreciation for the diverse ways in which conflicts regarding resources and resource uses might be resolved, and offers the decision maker a reasonable range of alternatives from which to make an informed decision. The components and broad aim of each alternative considered for the Northwest Colorado Greater Sage-Grouse LUPA are discussed below.

2.4 ALTERNATIVE DEVELOPMENT PROCESS FOR THE NORTHWEST COLORADO GREATER SAGE-GROUSE LAND USE PLAN AMENDMENT

The Northwest Colorado Greater Sage-Grouse LUPA planning team employed the BLM planning process (outlined in **Section 1.4**, Planning Process) to develop a reasonable range of alternatives for the LUPA/EIS. The BLM and Forest Service complied with NEPA and the CEQ implementing regulations at 40 CFR Part 1500 in the development of alternatives for this Proposed

LUPA/EIS, including seeking public input and analyzing reasonable alternatives. Where necessary to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives, the alternatives include management options for the planning area that would modify or amend decisions made in the applicable LUP. Since this LUPA/EIS will specifically address GRSG conservation, many decisions within existing LUPs that do not impact GRSG are acceptable and reasonable; in these instances, there is no need to develop alternative management prescriptions.

Public input received during the scoping process was considered to identify significant issues deserving of detailed study to help identify alternatives. The planning team developed planning issues to be addressed in the LUPA/EIS, based on broad concerns or controversies related to conditions, trends, needs, and existing and potential uses of planning area lands and resources. All comments were reviewed to determine whether they identified significant issues or unresolved conflicts.

2.4.1 Develop a Range of Reasonable Alternatives

Based on scoping and collaboration efforts, the BLM and Forest Service finalized their planning criteria and identified seven key planning issues to help frame the alternatives development process. Following the close of the public scoping period in March 2012, the BLM and the Forest Service began the alternatives development process. Between May and September 2012, the planning team (BLM, Forest Service, and cooperating agencies) met to develop management goals and to identify objectives and actions to address the goals. The various groups met numerous times throughout this period to refine their work. As outcomes of this process, the planning team:

- Developed one No Action Alternative (Alternative A) and two preliminary action alternatives. The first action alternative (Alternative B) is based on *A Report on National Greater Sage-Grouse Conservation Measures* (NTT 2011)
- One alternative (Alternative C) is based on a proposed alternative submitted by conservation groups

Blended goals, objectives, and actions from the two action alternatives to formulate a third action alternative (Alternative D) that strives for balance among competing interests and has the greatest potential to effectively address the planning issues

Each of the preliminary action alternatives in the Draft LUPA/EIS was designed to:

- Address the planning issues (identified in **Section 1.5.2**)
- Fulfill the purpose and need for the LUPA (outlined in **Section 1.2, Purpose of and Need for the Land Use Plan Amendments**)

- Meet the multiple use mandates of the FLPMA (43 CFR 1716), Multiple Use Sustained Yield Act of 1960 and NFMA

2.4.2 Resulting Range of Alternatives in Draft Land Use Plan Amendments/ Environmental Impact Statement

The three resulting action alternatives (Alternatives B, C, and D) in the Draft LUPA/EIS offer a range of management approaches to maintain or increase GRSG abundance and distribution of GRSG by conserving, enhancing, or restoring the sagebrush ecosystem upon which GRSG populations depend in collaboration with other conservation partners. While the goal is the same across all the alternatives, each alternative contains a discrete set of objectives and management actions constituting a separate LUPA. The goal is met in varying degrees, with the potential for different long-range outcomes and conditions.

The relative emphasis given to particular resources and resource uses differs as well, including allowable uses, restoration measures, and specific direction pertaining to individual resource programs. When resources or resource uses are mandated by law or are not tied to planning issues, there are typically few or no distinctions between alternatives.

The meaningful differences among the alternatives are described in **Section 2.8**, Comparison of Proposed Plan Amendment and Draft Alternatives. **Section 2.9**, Detailed Description of Draft Alternatives, also provides a complete description of the proposed decisions for each alternative, including the project goal and objectives, management actions, and allowable uses for individual resource programs. Maps and figures in **Appendix A** provide a visual representation of differences between alternatives. In some instances, varying levels of management overlap a single area, or polygon, due to management prescriptions from different resource programs. In instances where varying levels of management prescriptions overlap a single polygon, the stricter of the management prescriptions would apply.

2.4.3 Selection of and Rationale for Identifying the Preferred Alternative

The BLM and Forest Service selected Alternative D as their preferred alternative, which was presented in the Draft RMP/EIS, released in August 2013. The BLM and Forest Service selected the preferred alternative based on interdisciplinary team recommendations, environmental consequences analysis of the alternatives, cooperating agency input, and public input during scoping. Comments submitted by other government agencies, public organizations, state and tribal entities, and interested individuals were given careful consideration. Public scoping efforts enabled the BLM to identify and shape significant issues pertaining to GRSG habitat, energy development, livestock grazing, potential ACECs, public land access, and other program areas. Cooperating agencies participated, reviewed, and provided comments at critical intervals during the alternative development process, as well as the EIS process in general.

All of the action alternatives were developed to employ resource programs to address the USFWS-identified threats to GRSG and its habitat. **Table 2.1** identifies the threats and the applicable BLM and Forest Service resource programs in RMPs and LUPs for addressing the threats. The major threats to GRSG identified by USFWS in WAFWA MZs II and VII include oil and gas development, infrastructure, agriculture and urbanization, and livestock grazing (Manier et al. 2013, p 253-256).

The BLM's NEPA handbook (H-1790-1) requires the BLM to identify a preferred alternative in the Draft LUPA/EIS. Formulated by the planning team, the preferred alternative represents those goals, objectives, and actions determined to be most effective at resolving planning issues and balancing resource use at this stage of the process. While collaboration is critical in developing and evaluating alternatives, the final designation of a preferred alternative remains the exclusive responsibility of the BLM and Forest Service. The BLM's preferred alternative in the Draft LUPA/EIS was Alternative D. Alternatives A, B, and C were determined to be less effective at resolving planning issues and balancing resource issues. See **Section 2.6.1**, Development of Proposed Land Use Plan Amendments, for a discussion of the how the Proposed LUPAs were developed.

Table 2.1
USFWS-Identified Threats to GRSG and Its Habitat and Applicable BLM/Forest Service RMP/LUP Resource Programs for Addressing Threats

USFWS-identified Threat to GRSG and Its Habitat¹	COT Report-Identified Threats to GRSG and Its Habitat (2013)	Applicable BLM/Forest Service LUPA Resource Program for Addressing the Threat
Oil and Gas Development	Energy Development	BLM/Forest Service Program: Fluid Minerals Decisions: Identify open and closed areas to fluid mineral leasing; identify open areas with no surface occupancy (NSO), controlled surface use (CSU), and timing limitation (TL) stipulations
Infrastructure	Infrastructure	BLM/Forest Service Program: Lands and Realty Decisions: Issue ROW grant; identify ROW avoidance or exclusion areas
<ul style="list-style-type: none"> • Power lines/pipeline • Roads • Communication Sites • Railroads 		BLM/Forest Service Program: Lands and Realty – Utilities Decisions: Issue ROW grant; identify ROW avoidance or exclusion areas; identify utility corridors
Range Improvements		BLM/Forest Service Program: Lands and Realty – Communication Sites

Table 2.1
USFWS-Identified Threats to GRSG and Its Habitat and Applicable BLM/Forest Service RMP/LUP Resource Programs for Addressing Threats

USFWS-identified Threat to GRSG and Its Habitat ¹	COT Report-Identified Threats to GRSG and Its Habitat (2013)	Applicable BLM/Forest Service LUPA Resource Program for Addressing the Threat
		<p>Decisions: Issue ROW grant; identify ROW avoidance or exclusion areas</p> <p>BLM/Forest Service Program: Range Management – Fences</p> <p>Decisions: Installation or removal of fences</p> <p>BLM/Forest Service Program: Comprehensive Trails and Travel Management/Range Management – Fences/culverts/stream crossings</p> <p>Decisions: Installation or removal of fences, culverts or stream crossings</p> <p>BLM/Forest Service Program: Comprehensive Trails and Travel Management – Roads</p> <p>Decisions: Identify travel management areas; identify modes of access and travel; identify areas open, limited, or closed to off-highway vehicles (OHVs)</p> <p>BLM/Forest Service Program: Lands and Realty – Railroads</p> <p>Decisions: Issue ROW grant; identify ROW avoidance or exclusion areas</p>
Invasive Species	Nonnative, Invasive Plant Species	<p>BLM/Forest Service Program: Vegetation Management, Range Management, Wildland Fire Management and Recreation</p> <p>Decisions: Weed control, suppression, or eradication via natural processes; restrictions on allowable uses; active management or treatment</p>
Wildland fire	Fire	<p>BLM/Forest Service Program: Wildland Fire Management</p> <p>Decisions: Changes to fire management strategies; identify areas suitable/unsuitable for managed wildland fire; identify priority areas for suppression</p>

Table 2.1
USFWS-Identified Threats to GRSG and Its Habitat and Applicable BLM/Forest Service RMP/LUP Resource Programs for Addressing Threats

USFWS-identified Threat to GRSG and Its Habitat ¹	COT Report-Identified Threats to GRSG and Its Habitat (2013)	Applicable BLM/Forest Service LUPA Resource Program for Addressing the Threat
Grazing	Grazing	<p>BLM/Forest Service Program: Range Management</p> <p>Decisions: Identify acres open and closed to grazing; establish animal unit months (AUMs); manage grazing systems; conduct range improvements; identify season of use; identify stocking rates</p> <hr/> <p>BLM/Forest Service Program: Wild Horse and Burro</p> <p>Decisions: Identify herd areas and herd management areas (HMAs)</p> <hr/> <p>BLM/Forest Service Program: Special Status Species</p> <p>Decisions: Identify habitat management</p>
Agriculture	Agricultural Conversion and Ex-Urban Development	<p>BLM/Forest Service Program: Lands and Realty</p> <p>Decisions: Identify retention, disposal, and acquisition areas</p>
Disease	No similar threat identified	<p>BLM/Forest Service Program: Comprehensive Trails and Travel Management/Range Management</p> <p>Decisions: Establish design features and BMPs</p> <hr/> <p>BLM/Forest Service Program: Minerals</p> <p>Decisions: Establish design features and BMPs</p> <hr/> <p>BLM/Forest Service Program: Range Management</p> <p>Decisions: Identify number, location, and type of range water developments</p>
Urbanization	Urbanization	<p>BLM/Forest Service Program: Lands and Realty</p> <p>Decisions: Identify retention, disposal, and acquisition areas</p>

Table 2.1
USFWS-Identified Threats to GRSG and Its Habitat and Applicable BLM/Forest Service RMP/LUP Resource Programs for Addressing Threats

USFWS-identified Threat to GRSG and Its Habitat¹	COT Report-Identified Threats to GRSG and Its Habitat (2013)	Applicable BLM/Forest Service LUPA Resource Program for Addressing the Threat
Coal/Strip Mining	Mining	BLM/Forest Service Program: Coal Decisions: Identify suitable and unsuitable areas for coal development; identify areas withdrawn from coal development; identify open areas with NSO, CSU, and TL stipulations
Weather	No similar threat identified	There is no resource program in RMPs for addressing this threat to GRSG and its habitat.
Predation	No similar threat identified	BLM/Forest Service Program: Lands and Realty Decisions: Establish design features and Preferred Design Features (PDFs)/Required Design Features (RDFs)
Prescribed Fire	Loss of Sagebrush	BLM/Forest Service Program: Minerals Decisions: Establish design features and PDFs/RDFs
Prescribed Fire	Loss of Sagebrush	BLM/Forest Service Program: Wildland Fire Management, Fuels Management Decisions: Establish fire management strategies; identify areas suitable and unsuitable for prescribed fire use
Conifer Encroachment	Pinyon and/or Juniper Expansion	BLM/Forest Service Program: Vegetation Decisions: Conduct vegetation treatments
Water Development	No similar threat identified	Not applicable
Hard Rock Mining	Mining	BLM/Forest Service Program: Locatable Minerals Decisions: Petition for withdrawal lands from locatable mineral development; establish terms, conditions, or special considerations

Table 2.1
USFWS-Identified Threats to GRSG and Its Habitat and Applicable BLM/Forest Service RMP/LUP Resource Programs for Addressing Threats

USFWS-identified Threat to GRSG and Its Habitat ¹	COT Report-Identified Threats to GRSG and Its Habitat (2013)	Applicable BLM/Forest Service LUPA Resource Program for Addressing the Threat
		<p>BLM/Forest Service Program: Salable Mineral Materials</p> <p>Decisions: Identify open and closed areas to mineral materials disposal; establish terms, conditions, or special considerations</p> <hr/> <p>BLM/Forest Service Program: Nonenergy Leasable Minerals</p> <p>Decisions: Identify open and closed areas to nonenergy leasable minerals; Establish terms, conditions, or special considerations</p>
Hunting	No similar threat identified	The BLM/Forest Service have no authority over this use; therefore, there is no resource program for addressing this threat to GRSG and its habitat.
Climate Change	No similar threat identified	There is no one resource program for addressing this threat to GRSG and its habitat; however, this threat has been considered as part of individual resource concerns and monitored trends.
Contaminants	No similar threat identified	<p>BLM/Forest Service Program: Minerals</p> <p>Decisions: Plan of operations requirements</p> <hr/> <p>BLM/Forest Service Program: Public Health and Safety</p> <p>Decisions: Remediate and resolve illegal dumping</p>

¹USFWS 2010

2.5 BLM/FOREST SERVICE RESOURCE PROGRAMS FOR ADDRESSING GRSG THREATS

The action alternatives are directed toward responding to USFWS-identified issues and threats to GRSG and its habitat. The USFWS threats do not necessarily align with BLM and Forest Service resource program areas, and are often integrated into several different agency resource program areas. **Table 2.1** provides a cross-walk between each of the USFWS listing decision and COT identified threats and the BLM and the Forest Service resource program areas

and shows how those threats were addressed in the BLM and the Forest Service LUP.

2.6 PROPOSED PLAN AMENDMENT

2.6.1 Development of Proposed Land Use Plan Amendments

As a result of public comments, best available science, cooperating agency coordination, and internal review of the Draft LUPA/EIS, the BLM and Forest Service have developed the Proposed LUPAs/Final EIS. The Proposed LUPAs carry forward Alternative D (the Preferred Alternative) from the Draft LUPA/EIS, as well as the other alternatives analyzed in the Draft LUPA/EIS. The Proposed LUPAs consist of a combination of all the alternatives and are now considered the Proposed LUPAs for managing BLM-administered and National Forest System lands within the Northwest Colorado sub-region. The Proposed LUPAs focus on addressing public comments, while continuing to meet the BLM's and Forest Service's legal and regulatory mandates.

The BLM/Forest Service have refined the Proposed LUPA to provide a layered management approach that offers the highest level of protection for GRSG in the most valuable habitat. Land use allocations in the Proposed LUPA would limit or eliminate new surface disturbance in PHMA while minimizing disturbance in GHMA. In addition to establishing protective land use allocations, the Proposed LUPA would implement a suite of management tools, such as disturbance limits, GRSG habitat objectives, and monitoring (**Appendix E and Appendix F**), GRSG habitat desired conditions, mitigation approaches (**Appendix G**), adaptive management triggers and responses, and lek buffer distances (**Appendix B**) throughout the range. These overlapping and reinforcing conservation measures will work in concert to improve GRSG habitat condition and provide clarity and consistency on how the BLM/Forest Service manage activities in GRSG habitat.

For the sake of clarity, BLM and Forest Service decisions have been separated into two sections, as described in **Table 2.2** and **Table 2.4**, respectively.

Since release of the Draft LUPA/EIS, the BLM/Forest Service have continued to work closely with a broad range of governmental partners, including Governors, State Fish and Game agencies, USFWS, Indian tribes, and county commissioners. Through this cooperation, the BLM/Forest Service have developed a Proposed Plan/LUPA that takes into account state, tribal, and local plans, policies, and strategies in accordance with applicable law and contributes to the long-term conservation of GRSG. The BLM/Forest Service also received many substantive public comments on the Draft LUPA/EIS (**Appendix P**, Response to Comments on the Draft Land Use Plan Amendment/Environmental Impact Statement), which informed the BLM/Forest Service's development of the Proposed Plan/LUPA.

The BLM/Forest Service Proposed Plan/LUPA considers documents related to the conservation of GRSG that have been released since the publication of the Draft LUPA/EIS. For example, this Proposed LUPA/Final EIS considers the US Geological Survey November 21, 2014, report *Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review* (Manier et al. 2014).

The BLM and Forest Service management actions are separated into two columns in **Table 2.8**.

2.6.2 BLM Proposed Land Use Plan Amendment

The Proposed LUPA incorporates the following GRSG goals:

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

The Proposed LUPA seeks to allocate resources among competing human interests and land uses and conserve natural resource values, including GRSG habitat. At the same time, it would sustain and enhance ecological integrity across the landscape, including plant, wildlife, and fish habitat. The Proposed LUPA incorporates adjustments made in response to public comments on the Draft LUPA, as well as cooperating agency input. Conservation measures under the Proposed LUPA are focused on PHMA and GHMA as well as active leks (regardless of which type of habitat the active lek is located within).

Table 2.2 describes the management actions and allowable uses that comprise the BLM Proposed LUPA.

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

Objective: Maintain and enhance populations and distribution of GRSG by protecting and improving sagebrush habitats and ecosystems that sustain GRSG populations.
Travel and Transportation
Objective: Manage travel and transportation to 1) reduce mortality from vehicle collisions, 2) limit change in GRSG behavior, 3) avoid, minimize, and compensate for habitat fragmentation, 4) limit the spread of noxious weeds, and 5) limit disruptive activity associated with human access.
(PHMA) Limit OHV travel to existing roads, primitive roads, and trails at a minimum.
<u>Special Zone Provision:</u> Colorado MZ 13 – Manage the Wolford Mountain open OHV area.
(PHMA) Evaluate and consider permanent or seasonal road or area closures as needed to address a current threat.
(PHMA) Complete activity level travel plans as soon as possible, subject to funding. During activity level planning, where appropriate, designate routes with current administrative/agency purpose or need to administrative access only.
(PHMA) Complete activity level travel plans as soon as possible, subject to funding. Limit route construction to routes that will not adversely affect GRSG populations due to habitat loss or disruptive activities.

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

(PHMA) Use existing roads or realignments whenever possible. If it is necessary to build a new road, and the use of existing roads would cause adverse impacts to GRSG, construct new roads to the appropriate minimum Gold Book standard and add the surface disturbance to the total disturbance in the PHMA if it meets the criteria in **Appendix H, Guidelines for Implementation**.

Construct no new roads if the biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) is over the 3 percent disturbance cap, unless there is an immediate health and safety need, or to support valid existing rights that cannot be avoided. Evaluate and implement additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.

(PHMA) Allow upgrades to existing routes after documenting that the upgrade will not adversely affect GRSG populations due to habitat loss or disruptive activities.

(PHMA) Conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in WSAs and within lands with wilderness characteristics that have been selected for protection in previous LUPs.

(PHMA) When reseeding roads, primitive roads and trails, use appropriate seed mixes and consider the use of transplanted sagebrush.

Recreation

Objective: Manage Recreation to avoid activities that 1) disrupt GRSG, 2) fragment GRSG habitat, or 3) spread noxious weeds.

(PHMA) Do not allow SRPs/SUAs with the potential to adversely affect GRSG or GRSG habitat.

Lands and Realty Management

Objective: Manage the Lands and Realty program to avoid, minimize, and compensate for the loss of habitat and habitat connectivity through the authorizations of ROWs, land tenure adjustments, proposed land withdrawals, agreements with partners, and incentive programs.

Rights-of-Way (ROW)

Manage areas within PHMA as avoidance areas for BLM ROW permits or Forest Service SUA permits. (See Special Stipulations applicable to **GRSG PHMA ROW Avoidance, Proposed LUPA.**)

Manage areas within GHMA as avoidance areas for major (transmission lines greater than 100 kilovolts and pipelines greater than 24 inches) and minor BLM ROW permits or Forest Service SUA permits. (See Special Stipulations applicable to **GRSG PHMA ROW Avoidance, Proposed LUPA.**)

No new roads or above-ground structures would be authorized within 1 mile of an active lek.

Above-ground structures are defined as structures that are located on or above the surface of the ground, including but not limited to: roads, fences, communication towers, and/or any structure that would provide perches.

Above ground structures would only be authorized if:

1. It is consistent with the overall objective of the RMP Amendment;
2. The effect on GRSG populations or habitat is nominal or incidental;
3. Allowing the exception prevents implementation of an alternative more detrimental to GRSG or similar environmental concern, and;
4. Rigid adherence to the restriction would be the only reason for denying the action.

PHMA and GHMA are designated as avoidance areas for high-voltage transmission line ROWs, except

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

for the transmission projects specifically identified below. All authorizations in these areas, other than the excepted projects, must comply with the conservation measures outlined in this Proposed LUPA, including the RDFs and avoidance criteria presented in this document. The BLM is currently processing applications for the TransWest and Energy Gateway South Transmission Line projects, and the NEPA review for these projects is well underway. The BLM is analyzing GRSG mitigation measures through these projects' NEPA review processes.

GRSG PHMA ROW Avoidance, Proposed LUPA. ROWs/SUAs may be issued after documenting that the ROWs/SUAs would not adversely affect GRSG populations based on the following criteria:

- Location of proposed activities in relation to critical GRSG habitat areas as identified by factors, including, but not limited to, average male lek attendance and/or important seasonal habitat.
- An evaluation of the potential threats from proposed activities that may affect the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see **Section 2.7.3, Regional Mitigation**)
- An evaluation of the proposed activities in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance and shield nearby habitat from disruptive factors.

Any new projects within PHMA would be subject to the 3 percent disturbance cap as described in **Appendix H, Guidelines for Implementation**. If the 3 percent disturbance cap is exceeded in PHMA in any Colorado MZ, no new ROW would be authorized in PHMA within that biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ), unless site-specific analysis documents no impact to GRSG.

GRSG PHMA ROW TL, Proposed LUPA: Prohibit surface occupancy and surface-disturbing activities associated with BLM ROW or Forest Service SUA permits within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15). (See Special Stipulations applicable to **GRSG PHMA ROW TL, Proposed LUPA**).

Same as Alternative D, except special stipulations described in **Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations**, would apply.

(PHMA) Only issue ROWs/SUAs after documenting that the ROWs/SUAs will not adversely affect GRSG populations due to habitat loss or disruptive activities (independent of disturbance cap), except where such limitation would make accessing valid existing rights impracticable.

Construct new roads to the appropriate Gold Book standard and add the surface disturbance to the total disturbance in the PHMA.

Any new ROW/SUA authorizations would be subject to the 3 percent disturbance cap, and would be evaluated based on an analysis of the following:

- Location of proposed activities in relation to critical GRSG habitat areas as identified by factors, including, but not limited to, average male lek attendance and/or important seasonal habitat.
- An evaluation of the potential threats from proposed activities that may affect the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see **Section 2.7.3, Regional Mitigation**).

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

- An evaluation of the proposed activities in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance and shield nearby habitat from disruptive factors.

GRSG PHMA ROW TL, Proposed LUPA: Prohibit surface occupancy and surface-disturbing activities associated with BLM ROW or Forest Service SUA permits within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15).

(PHMA) In PHMA, or within 4 miles of an active lek, for ROW/SUA renewals, where existing facilities cannot be removed, buried, or modified, require perch deterrents.

(PHMA) Reclaim and restore ROWs considering GRSG habitat requirements.

(PHMA) Designate new ROW corridors in GRSG PHMA only where there is a compelling reason to do so and location of the corridor within PHMA will not adversely affect GRSG populations due to habitat loss or disruptive activities.

Land Tenure Adjustment

(PHMA) Retain public ownership of GRSG PHMA. Consider exceptions where:

(PHMA) 1) The agency can demonstrate that disposal of the lands will provide a net conservation gain to the GRSG, or 2) the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on GRSG conservation.

(PHMA) Consider land ownership adjustments when there is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the GRSG PHMA.

(PHMA) In isolated federal parcels, only allow tract disposals that are beneficial or neutral to long-term management of GRSG populations.

(GHMA) For lands in GHMA that are identified for disposal, the BLM would only dispose of such lands consistent with the goals and objectives of this LUPA, including, but not limited to, the LUPA objective to maintain or increase GRSG abundance and distribution.

(ADH) Consider GRSG habitat values in acquisitions.

For example: Identify key GRSG habitats on private or state land, adjacent to existing BLM/Forest Service land, where acquisition and protection by BLM/Forest Service could substantially benefit the local GRSG population. This could be accomplished via purchase, exchange, or donation to satisfy mitigation requirements.

Wind Energy Development

(PHMA) Manage PHMA as exclusion areas for wind energy development.

(GHMA) Manage GHMA as avoidance areas for wind energy development.

Industrial Solar

(PHMA) Manage PHMA as exclusion areas for industrial solar projects.

(GHMA) Manage GHMA as avoidance areas for industrial solar projects.

Range Management

Objectives: GRSG objectives and well-managed livestock operations are compatible because forage availability for livestock and hiding cover for GRSG are both dependent on healthy plant communities. Agreements with partners that promote sustainable GRSG populations concurrent with sustainable

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

ranch operations offer long-term stability. In the context of sustainable range operations, manage the range program to: 1) maintain or enhance vigorous and productive plant communities; 2) maintain residual herbaceous cover to reduce predation during GRSB nesting and early brood-rearing; 3) avoid direct adverse impacts to GRSB-associated range project infrastructure; and 4) employ grazing management strategies that avoid concentrating animals on key GRSB habitats during key seasons.

(ADH) Within ADH, incorporate GRSB habitat objectives and management considerations into all BLM and Forest Service grazing allotments through Allotment Management Plans or permit renewals and/or Forest Service Annual Operating Instructions.

(ADH) Work cooperatively on integrated ranch planning within GRSB habitat. Develop management strategies that are seamless with respect to actions on public and private lands within BLM and/or Forest Service grazing allotments.

(PHMA) 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 PHMA.

In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations.

(ADH) Conduct land health assessments that include (at a minimum) indicators and measurements of vegetation structure/condition/composition specific to achieving GRSB habitat objectives (Doherty et al. 2011b). If local/state seasonal habitat objectives are not available, use GRSB habitat recommendations from Connelly et al. 2000a and Hagen et al. 2007.

Implementing Management Actions after Land Health and Habitat Evaluations

(ADH) Develop specific objectives—through NEPA analysis conducted in accordance with the permit/lease renewal process—to conserve, enhance, or restore GRSB habitat. Base benchmarks on Ecological Site/Range Site Descriptions. When existing on Ecological Site/Range Site Descriptions have not been developed, or are too general to serve adequately as benchmarks, identify and document local reference sites for areas of similar potential that exemplify achievement of GRSB habitat objectives and use these sites as the benchmark reference. Establish measurable objectives related to GRSB habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations, or other habitat and successional stage objectives.

(ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state subject to habitat objectives, including successional stages.

(ADH) Include terms and conditions on grazing permits and leases that address disruptive activities that affect GRSB and assure plant growth requirements are met and residual forage remains available for GRSB hiding cover.

Specify as necessary:

1. Season or timing of use
2. Numbers of livestock (include temporary non-use or livestock removal)
3. Distributions of livestock use

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

-
4. Intensity of use (utilization or stubble height objectives)
 5. Kind of livestock (e.g., cattle, sheep, horse, llama, alpaca, and goat)
 6. Class of livestock (e.g., yearlings versus cow/calf pairs)
 7. Locations of bed grounds, sheep camps, trail routes, and the like
-

(ADH) Develop drought contingency plans at the appropriate landscape unit that provide for a consistent/appropriate BLM/Forest Service response. Plans should establish policy for addressing ongoing drought and post-drought recovery for GRSG habitat objectives.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA would include specific management thresholds based on **Table 2.3**, Land Health Standards (43 CFR 4180.2) (**Appendix K**), ecological site potential, and one or more defined responses that would allow the authorizing officer to make adjustments to livestock grazing that have already been subject to NEPA analysis..

Allotments within PHMA, focusing on those containing riparian areas, including wet meadows, would 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.

Riparian Areas and Wet Meadows

(ADH) Manage riparian areas and wet meadows for proper functioning condition or other similar methodology (Forest Service only) within ADH.

(ADH) Within ADH, manage wet meadows to maintain diverse species richness, including a component of perennial forbs, relative to site potential (i.e., reference state).

(ADH) Establish permit/lease terms and conditions in conjunction with grazing strategies to ensure that the timing and level of utilization results in wet meadows with diverse species richness, including a component of perennial forbs, relative to site potential (i.e., reference state).

(ADH) Authorize new water development only after determining that the project will not adversely impact GRSG from habitat loss. Ensure that adequate long-term grazing management is in effect before authorizing water developments that may increase levels of use or change season of use. Give specific consideration to adjacent or downstream wetland habitat when a project entails a diversion from a spring or seep.

(ADH) Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area. If necessary to maintain GRSG populations or reverse a downward population trend caused by habitat loss, modify the project as necessary to restore the applicable wetland habitat.

Treatments to Increase Forage for Livestock/Wild Ungulates

(ADH) Manage for a habitat objective that is primarily sagebrush with a mosaic of seral stages and sagebrush in all age classes. On a site-by-site basis, do not allow treatments that would adversely affect GRSG populations. See **Appendix H**, Guidelines for Implementation.

(PHMA) Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG PHMA to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an Allotment Management Plan/Conservation Plan or if they provide value in conserving or enhancing the rest of PHMA, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments (or other analyses [Forest Service

Table 2.2
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only]) (Davies et al. 2011).

For example: Some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure in important sagebrush habitats or serve as a strategic fuels management area.

Structural Range Improvements and Livestock Management Tools

(ADH) Design new range improvement projects to enhance livestock distribution and to control the timing and intensity of utilization. Examples of structural range improvement projects are cattle guards, fences, corrals, pipelines, troughs, storage tanks, windmills, ponds/reservoirs, solar panels, and spring developments.

Include a plan to monitor and control invasive plant species following any related ground disturbance. Place mineral or salt supplements away from water sources and leks in locations that enhance livestock distribution.

(PHMA) Where conditions create the potential for impacts from West Nile virus from developments or modification of water developments, use PDFs/RDFs to mitigate the potential impacts. See **Appendix I (Required Design Features, Preferred Design Features, and Suggested Design Features)**.

(PHMA) Evaluate existing structural range improvements to determine if modifications are necessary to maintain GRSG populations or reverse a downward population trend caused by habitat loss. Modify, relocate, or remove projects as necessary.

Place mineral and salt supplements away from water sources and leks in locations that enhance livestock distribution.

(ADH) Mark fences in high risk areas (Christiansen 2009; Stevens 2011).

(PHMA) Where marking fences does not reduce fence-related GRSG mortality, modify fences. Where modification does not reduce GRSG mortality and the fence-related mortality is sufficient to adversely affect GRSG populations, remove fences.

(ADH) Monitor for and treat invasive species associated with existing range improvements (Gelbard and Belnap 2003; Bergquist et al. 2007).

Retirement of Grazing Privileges

(ADH) 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. When a permittee or lessee voluntarily relinquishes grazing preference, consider conversion of the allotment to a reserve common allotment that will remain available for use on a temporary, nonrenewable basis for the benefit of GRSG habitat. Authorize temporary nonrenewal permits in Reserve Common Allotments to meet resource objectives elsewhere such as rest or deferment due to fire or vegetation treatments. Temporary use of reserve common allotments would not be allowed due to drought or overuse of customary allotments.

Wild Horse Management

Objective: Manage wild horses in a manner designed to 1) avoid reductions in grass, forb, and shrub cover, and 2) avoid increasing unpalatable forbs and invasive plants such as cheatgrass.

(ADH) Manage wild horse population levels within established appropriate management levels.

(ADH) Same as Alternative B, but consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site-specific circumstances

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

warrant an exemption.

(PHMA) Within PHMA, develop or amend BLM HMA plans and Forest Service Wild Horse Territory Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs and Forest Service Wild Horse Territories. When developing HMA plans, apply all appropriate conservation measures from the range program, including, but not limited to, utilization of forage and structural range improvements.

(PHMA) For all BLM HMAs and Forest Service Wild Horse Territories within PHMA, prioritize the evaluation of all appropriate management levels based on indicators that address vegetation structure/condition/composition and measurements specific to achieving GRSG habitat objectives. Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.

(ADH) Coordinate with other resources (range, wildlife, and riparian) to conduct land health assessments to determine existing vegetation structure/condition/composition within all BLM HMAs and Forest Service Wild Horse Territories.

(PHMA) When conducting NEPA analysis for wild horse management activities, water developments, or other rangeland improvements for wild horses in PHMA, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in PHMA.

Fluid Minerals Management¹

Objective: Manage fluid minerals to avoid, minimize, and compensate for: 1) direct disturbance, displacement, or mortality of GRSG; 2) direct loss of habitat or loss of effective habitat through fragmentation; and 3) cumulative landscape-level impacts. Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside 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 nonhabitat 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 3162.3-1(h).

Unleased Fluid Minerals

No new leasing 1 mile from active leks in ADH (Blickley et al. 2012; Harju 2012).

NSO without waiver or modification in PHMA. See **Appendix D** (Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations) for exceptions.

In GHMA, any new leases would include appropriate TL stipulations to protect GRSG and its habitat. In addition, in GHMA, NSO with waivers, exceptions, and modification within 2 miles of active leks (**Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).

3 percent disturbance cap in PHMA (by biologically significant unit) with disturbances limited to 1 disturbance per 640 acres density calculated by Colorado MZ and proposed project analysis area would apply to new lease activities.

¹ The Oil Shale and Tar Sands Programmatic EIS (March 2013) excludes from oil shale leasing all core/priority GRSG habitat (PHMA in Colorado). Note that in GHMA, the management actions for fluid minerals also pertain to oil shale resources through all alternatives. Decisions for leasable fluid minerals also apply to uranium.

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

No new leasing in PHMA if disturbance cap exceeds 3 percent calculated by biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) or 1 disturbance per 640 acres density is exceeded.

The following stipulations would apply (**Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations):

GRSG NSO-46e: See **Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations, for waiver, modification, and exception criteria.

GRSG TL-46e: No activity associated with construction, drilling, or completions within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15). Authorized Officer could grant an exception, modification, or waiver in consultation with the State of Colorado (**Appendix F**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).

GRSG LN-46e: Any lands leased in PHMA are subject to the restrictions of 1 disturbance per 640 acres calculated by biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) to allow clustered development (**Appendix F**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).

(PHMA) Allow geophysical exploration within PHMA to obtain information for existing federal fluid mineral leases or areas adjacent to state or fee lands within PHMA. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal TLs and other restrictions that may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood-rearing, and winter habitats during their season of use by GRSG.

Leased Fluid Minerals

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

Within 1 mile of active leks, disturbance, disruptive activities, and occupancy are precluded.

If it is determined that this restriction would render 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 disturbance per 640 acres and/or the 3 percent disturbance cap, use the criteria below to site proposed lease activities to meet GRSG habitat objectives and require mitigation as described in **Appendix G** (Greater Sage-Grouse Mitigation Strategy).

In PHMA and within 4 miles of an active lek, the criteria below would be applied to guide development of the lease or unit that would result in the fewest impacts possible to GRSG.

Based on site-specific conditions, prohibit construction, drilling, and completion within PHMA within 4 miles of a lek during lekking, nesting, and early brood-rearing (March 1 to July 15). In consultation with the State of Colorado, this TL may be adjusted based on application of the criteria below.

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

Criteria*:

- Location of proposed lease activities in relation to critical GRSG habitat areas as identified by factors, including, but not limited to, average male lek attendance and/or important seasonal habitat
- An evaluation of the potential threats from proposed lease activities that may affect the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see **Section 2.7.3**, Regional Mitigation)
- An evaluation of the proposed lease activities, including design features, in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance and shield nearby habitat from disruptive factors. This is particularly likely in Colorado MZ 17, which has an atypical GRSG habitat featuring benches with GRSG habitat interspersed with steep ravines

To authorize an activity based on the criteria above, the environmental record of review must show no significant direct disturbance, displacement, or mortality of GRSG.

GRSG PHMA Notice to Lessees-54e. Within PHMA, operators would be encouraged to complete Master Development Plans in consultation with the State of Colorado, instead of single-well Applications for Permit to Drill for all but exploratory wells.

(Refer to **Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)

(PHMA) When necessary, conduct effective mitigation in 1) GRSG PHMA or—less preferably—2) GHMA (dependent upon the area-specific ability to increase GRSG populations and in consultation with the State of Colorado).

(PHMA) Conduct effective compensatory mitigation first within the same Colorado MZ where the impact is realized; if not possible, then conduct mitigation within the same population as the impact, or in other Colorado GRSG populations, in consultation with the State of Colorado.

(ADH) For future actions, require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Ensure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000a; Hagen et al. 2007) that would 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 for the BLM and Forest Service will perform the work.

Solid Minerals

Objective: Manage solid mineral programs to avoid, minimize, and compensate for adverse impacts to GRSG habitat to the extent practical under the law and BLM/Forest Service jurisdiction.

Coal

(ADH) *Existing Coal Leases:* During the term of the lease, encourage the lessee to voluntarily follow PDFs (**Appendix I**, Required Design Features, Preferred Design Features, and Suggested Design Features) to reduce and mitigate any adverse impacts to GRSG.

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 area is “unsuitable” for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).

Table 2.2
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To authorize expansion of existing leases, the environmental record of review must show no significant direct disturbance, displacement, or mortality of GRSG based on these criteria:

- Important GRSG habitat areas as identified by factors, including, but not limited to, average male lek attendance and/or important seasonal habitat
- An evaluation of the threats affecting the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see **Section 2.7.3**, Regional Mitigation)
- An evaluation of terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance and shield nearby habitat from disruptive factors.

(PHMA) No new surface coal mine leases would be allowed in PHMA.

At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM would determine whether the lease application area is “unsuitable” for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).

New Underground Coal Mine Leases would be subject to: Special Stipulations:

- All surface disturbances will be placed more than 2 miles from active leks.
- No surface disturbance on remainder of PHMA subject to the following conditions:

If, after consultation with the State of Colorado, and in consideration of the following criteria, there is no significant direct disturbance, displacement, or mortality of GRSG or impact to GRSG habitat;

- 3 percent disturbance cap in PHMA with disturbances limited to 1 disturbance per 640 acres density calculated by Colorado MZ and proposed project analysis area would apply to new lease activities
- No new leasing in PHMA if disturbance cap exceeds 3 percent for the biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) or 1 disturbance per 640 acres is exceeded

(ADH) Underground mining exemption criteria for new leases:

1. Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in 43 CFR 3400.0-5(mm) of this title, on any lease, if issued.
2. Where underground mining will include surface operations and surface impacts on federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency find that a relevant exception or exemption applies. See 43 CFR 3461.1(b). Where practicable, limit permitted disturbances as defined in **Appendix H**, Guidelines for Implementation, to 3 percent in any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ). Where disturbance exceeds 3 percent in any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ), make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.

(PHMA) See 43 CFR 3461.4 (a) and (b), Exploration. Authorized exploration activities may be conducted only if the Authorized Officer reviews any application for an exploration license on such lands to ensure

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

that any exploration does not harm any value for which the area has been assessed as unsuitable and determines that the exploration will not adversely affect GRSG populations due to habitat loss or disruptive activities or that the impact can be fully mitigated. Where practicable, limit permitted disturbances as defined in **Appendix H**, Guidelines for Implementation, to 3 percent in PHMA any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ). Where disturbance exceeds 3 percent in any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ), make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.

(PHMA) *Underground mining – lease renewals:*

- Require that all surface mining appurtenant facilities for underground mining be located outside of PHMA (unless the lessee establishes that that such location is not technically feasible).
- If surface mining facilities must be located in PHMA, require the facilities be located in areas of existing disturbance and to have the smallest footprint possible utilizing design strategies to minimize disturbance, such as those identified in the PDF section of this table.
- Apply as conditions of lease renewal all appropriate conservation measures, PDFs, and mitigation designed to avoid or minimize impacts to GRSG.

(ADH) *Surface mining – lease renewals/ adjustments:* Apply as conditions of lease renewal all appropriate conservation measures, PDFs, and mitigation designed to avoid or minimize impacts to GRSG.

(ADH) Recommend or require as appropriate during all relevant points of the coal leasing and authorization process, minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity-level planning (jurisdiction is managed by the State). The Office of Surface Mining or a delegated State Regulatory authority under the Surface Mining Control and Reclamation Act of 1977 authorizes surface-disturbing activities of active coal mining operations on federal mineral estate. The BLM/Forest Service coordinates with the Surface Mining Control and Reclamation Act of 1977 in overseeing coal leasing and permitting on federal lands. The resource recovery and protection plan for which BLM/Forest Service recommends approval to the Secretary integrates the reclamation plan recommended by the Surface Mining Control and Reclamation Act of 1977 for active coal mines on federal mineral estate. Approval of coal mining plans on lands containing leased federal coal is reserved to the Secretary of the Interior (30 CFR 740.4). BLM and Forest Service issue coal leases and exploration licenses for right of entry to promote development of minerals on federal lands. See the following in regards to BLM exploration: 43 CFR 3461.4, Exploration. States with delegated authority on federal lands from the Office of Surface Mining may have their own GRSG guidance in association with state wildlife agencies and such guidance may differ from state to state.

(ADH) (a) Assessment of any area as unsuitable for all or certain stipulated methods of coal mining operations pursuant to Section 522 of the Surface Mining Control and Reclamation Act of 1977 (30 USC 1272) and the regulations of this subpart does not prohibit exploration of such area under 43 CFR 3410 and 43 CFR 3480. 43 CFR 3461.4(a)

(ADH) (b) An application for an exploration license on any lands assessed as unsuitable for all or certain stipulated methods of coal mining shall be reviewed by the BLM/Forest Service to ensure that exploration does not harm any value for which the area has been assessed as unsuitable (43 CFR 3461.4(b))

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

Locatable Minerals

(PHMA) In plans of operations required prior to any proposed surface-disturbing activities include as appropriate effective mitigation for conservation in accordance with existing policy (BLM Washington Office Instruction Memorandum 2013-142).

(PHMA) Where applicable to prevent unnecessary or undue degradation, apply seasonal restrictions if deemed necessary.

Nonenergy Leasable Minerals

New nonenergy mineral leases:

No new nonenergy mineral leasing in PHMA.

Existing nonenergy mineral leases:

Apply the following conservation measures as COAs where applicable and feasible:

Preclude new surface occupancy on existing leases within 1 mile of active leks (Blickley et al. 2012; Harju 2012).

If the lease is entirely within 1 mile of an active lek, require any development to be placed in the area of the lease least harmful to GRSG based on vegetation, topography, or other habitat features (**Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).

Preclude new surface disturbance on existing leases within 2 miles of active leks within PHMA.

If the lease is entirely within 2 miles of an active lek, require any development to be placed in the area of the lease least harmful to GRSG based on vegetation, topography, or other habitat features (**Appendix D**, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).

Limit permitted disturbances to 1 disturbance per 640 acres average across the landscape in PHMA. Disturbances may not exceed 3 percent in PHMA in any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ).

GRSG TL-47-51 – Based on site-specific conditions, prohibit surface occupancy or disturbance within PHMA within 4 miles of a lek during lekking, nesting, and early brood-rearing (March 1 to July 15).

Salable Mineral Materials

(PHMA) Close PHMA to new mineral material sales. However, these areas would remain open to free use permits and the expansion of existing active pits, only if the following criteria are met:

- The activity is within the biologically significant unit and the project area disturbance cap
- The activity is subject to the provisions set forth in the mitigation strategy (**Appendix G**)
- All applicable required/preferred design features are applied; and [if applicable] the activity is permissible under the regional screening criteria (**Appendix H**, Guidelines for Implementation).

(ADH) Restore salable mineral pits no longer in use to meet GRSG habitat conservation objectives. Require reclamation/restoration of GRSG habitat as a viable long-term goal to improve the GRSG habitat (**Appendix H**, Guidelines for Implementation)

Mineral Split Estate

Objective: Utilize federal authority to protect GRSG habitat on split-estate lands to the extent provided by law.

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

(PHMA/GHMA) Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in nonfederal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs/PDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.

(PHMA/GHMA) Where the federal government owns the surface and the mineral estate is in nonfederal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs/PDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.

Wildfire Suppression, Fuels Management, and Fire Rehabilitation

Fuels Management

Objective: Manage the fuels program to avoid GRSG habitat loss and restore damaged habitat.

(PHMA) Do not reduce sagebrush canopy cover to less than 15 percent (Connelly et al. 2000a; Hagen et al. 2007) in a project area unless a vegetation management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PHMA and conserve habitat quality for the species, in consultation with the State of Colorado.

(PHMA) Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a Colorado MZ.

(PHMA) Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality, unless in consultation with the State of Colorado it is deemed necessary to reduce risk to life and property.

(ADH) Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site-specific variables allow, the use of prescribed fire or natural ignition fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is deemed a minor threat.

If prescribed fire is used in GRSG habitat, the NEPA analysis for the burn plan will address:

- why alternative techniques were not selected as viable options
- how GRSG goals and objectives would be met by its use
- how the COT report objectives would be addressed and met
- a risk assessment to address how potential threats to GRSG habitat would 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 could be used to meet specific fuels objectives that would protect GRSG habitat in PHMA (e.g., creating fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer-reduction treatments, or being used as a component with other treatment methods to combat annual grasses and restore native plant communities).

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 would need to be

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.

(ADH) Monitor and control invasive vegetation post treatment.

(ADH) Require use of native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG habitat objectives (Pyke 2011).

(PHMA) Design post fuels 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 management, travel management, and other uses, to achieve and maintain the desired condition of ESR projects to benefit GRSG (Eiswerth and Shonkwiler 2006).

(ADH) Design vegetation treatments in GRSG habitats to strategically facilitate firefighter safety, reduce wildfire threats, and extreme fire behavior. This may involve spatially arranging new vegetation treatments with past treatments, vegetation with fire-resistant serial stages, natural barriers, and roads in order to constrain fire spread and growth. This may require vegetation treatments to be implemented in a more linear versus block design (Launchbaugh et al. 2007).

(PHMA) During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011; Launchbaugh et al 2007). Consult with ecologists to minimize impacts to native perennial grasses consistent with the objectives and conservation measures of the grazing section.

Fire Operations

Objective: Manage fire to maintain and enhance large blocks of contiguous sagebrush.

(PHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements commensurate with all resource values at risk managed by the BLM and Forest Service. See **Appendix O**, Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.

(GHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements commensurate with all resource values at risk managed by the BLM and Forest Service. See **Appendix O**, Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.

(PHMA/GHMA) Temporary closures would be considered in accordance with 43 CFR subparts 8364, 8351, 6302 and 8341.

Emergency Stabilization and Rehabilitation (ESR)

Objective: Use ESR to address post-wildfire threats to GRSG habitat.

(ADH) Require use of native plant seeds that are beneficial for GRSG for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where attempts to use native seeds have failed, or native seed availability is low, use species that meet soil stability and hydrologic function objectives, as well as vegetation and GRSG habitat objectives (Pyke 2011).

(ADH) Design post-fire ESR and 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 management, travel management, and other uses to achieve and maintain the desired condition of ESR and Burn Area Emergency Rehabilitation projects to benefit GRSG (Eiswerth and Shonkwiler 2006).

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

(ADH) Rest burned areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (Wyoming Game and Fish Department 2011).

Habitat Restoration

Objective: (1) Use habitat restoration as a tool to create and/or maintain landscapes that benefit GRSG; (2) Use Integrated Vegetation Management to control, suppress, and eradicate, where possible, noxious and invasive species per BLM Handbook H-1740-2; and (3) In PHMA, the desired condition is to maintain a minimum of 70 percent of lands capable of producing sagebrush with 10 to 30 percent sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Technical Reference 1734-6).

(ADH) When planning restoration treatments in GRSG habitat, identify seasonal habitat availability, and prioritize treatments in areas that are thought to be limiting GRSG distribution and/or abundance, in accordance with the Prioritization section of the narrative for Alternative D.

The habitat objectives for GRSG (**Table 2.3**) are a list of indicators and values that describe GRSG seasonal habitat conditions. The values for the indicators were derived using a synthesis of current local and regional GRSG habitat research and data and reflect variability of ecological sites. The habitat cover indicators are consistent with existing indicators used by the BLM.

When determining if a site is meeting habitat objectives, the measurements from that particular site would be assessed based on the range of values for the indicators in **Table 2.3**. **Table 2.3** is one component of GRSG multi-scale habitat assessment (see **Appendix F**, Greater Sage-Grouse Monitoring Framework). The results of the habitat assessment would be used during the land health evaluation to ascertain if the land health standard applicable to GRSG habitat (e.g., special status species habitat standard) is being met.

When authorizing activities in GRSG habitat, the BLM would consider if habitat objectives are being achieved. If the habitat objectives are not being achieved, and the site has the potential for achieving these objectives, the BLM would determine the causal factor(s) and make the necessary management adjustments to address the causal factor(s), following current BLM regulations and policy.

Table 2.3
Seasonal Habitat Desired Conditions for Greater Sage-Grouse

ATTRIBUTE	INDICATORS	DESIRED CONDITION
BREEDING AND NESTING^{1,2,3} (Seasonal Use Period March 1-June 15) Apply 4 miles from active leks⁴		
Lek Security	Proximity of trees ⁵	Trees or other tall structures are none to uncommon within 1.86 miles of leks ^{6,7}
	Proximity of sagebrush to leks ⁶	Adjacent protective sagebrush cover within 328 feet of lek ⁶
Cover	Seasonal habitat extent ⁷ (percent of seasonal habitat meeting desired conditions)	>80% of the breeding and nesting habitat
	Sagebrush canopy ¹⁶ cover ^{6,7,8}	15 to 25%

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

	Sagebrush height ⁷ Arid sites ^{6,7,9} Mesic sites ^{6,7,10}	12 to 32 inches 16 to 32 inches
	Predominant sagebrush shape ⁶	>50% in spreading ¹¹
	Perennial grass canopy ¹⁶ cover ^{6,7} Arid sites ^{7,9} Mesic sites ^{7,10}	≥10% ≥15%
	Perennial grass height ^{6,7,8}	Provide overhead and lateral concealment from predators ^{7, 15}
	Perennial forb canopy ¹⁶ cover ^{6,7,8} Arid sites ⁹ Mesic sites ¹⁰	≥5% ^{6,7} ≥10% ^{6,7}
BROOD-REARING/SUMMER¹ (Seasonal Use Period June 16-October 31)		
Cover	Seasonal habitat extent ⁷ (percent of seasonal habitat meeting desired conditions)	>40% of the brood-rearing/summer habitat
	Sagebrush canopy ¹⁶ cover ^{6,7,8}	10 to 25%
	Sagebrush height ^{7,8}	16 to 32 inches
	Perennial grass canopy ¹⁶ cover and forbs ^{7,8}	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition ¹²
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present ¹³
WINTER¹ (Seasonal Use Period November 1-February 28)		
Cover and Food	Seasonal habitat extent ^{6,7,8} (percent of seasonal habitat meeting desired conditions)	>80% of the winter habitat
	Sagebrush canopy ¹⁶ cover above snow ^{6,7,8}	>10%
	Sagebrush height above snow ^{6,7,8}	>10 inches ¹⁴
¹ Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the amount of days cannot be shortened or lengthened by the local unit ² Doherty 2008 ³ Holloran and Anderson 2005 ⁴ Buffer distance may be changed only if 3 out of 5 years of telemetry studies indicate the 4 miles is not appropriate ⁵ Baruch-Mordo et al. 2013 ⁶ Stiver et al. In Press ⁷ Connelly et al. 2000a ⁸ Connelly et al. 2003 ⁹ 10–12 inch precipitation zone; <i>Artemisia tridentata wyomingensis</i> is a common big sagebrush sub-species for this type site (Stiver et al. In Press) ¹⁰ ≥12 inch precipitation zone; <i>Artemisia tridentata vaseyana</i> is a common big sagebrush sub-species for this type site (Stiver et		

Table 2.2
Description of BLM Proposed Land Use Plan Amendment¹

al. In Press)

¹¹ Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree or columnar shaped (Stiver et al. In Press)

¹² Existing land management plan desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting GRSG habitat requirements

¹³ Preferred forbs are listed in Habitat Assessment Tool/Framework Table III-2 (Stiver et al. In Press). Overall total forb cover may be greater than that of preferred forb cover because not all forb species are listed as preferred in Table III-2.

¹⁴ 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.

¹⁵ Projects will be designed to provide overhead and lateral concealment of nests on a site-specific basis

¹⁶ "Canopy" applies only to National Forest System lands, not BLM-administered lands

*See **Appendix H**, Guidelines for Implementation, for implementation recommendations for **Table 2.3**.

(PHMA) Include GRSG habitat parameters as defined by Connelly et al. (2000b), Hagen et al. (2007), or, if available, state GRSG conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within GRSG PHMA areas a high restoration priority.

(ADH) Require use of native plant seeds that are beneficial for GRSG for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG habitat objectives (Pyke 2011).

(PHMA) Design post restoration 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 management, travel management, and other uses, to achieve and maintain the desired condition of ESR projects to benefit GRSG (Eiswerth and Shonkwiler 2006).

(ADH) Manage for a habitat objective that is primarily sagebrush with a mosaic of seral stages and sagebrush in all age classes. On a site-by-site basis, do not allow treatments that would adversely affect GRSG populations.

Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the Fire and Invasives Assessment Team report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated. See **Appendix H**, Guidelines for Implementation.

(ADH) Make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) the highest priority for restoration efforts. Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM/Forest Service, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.

(ADH) Authorize local sagebrush seed collection to support local restoration efforts.

¹ (PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

2.6.3 Forest Service Proposed Land Use Plan Amendment

On April 9, 2012, the US Department of Agriculture adopted final planning regulations for the National Forest System at 36 CFR part 219. The regulations, known collectively as the 2012 Planning Rule, provide broad programmatic direction in developing and carrying out land management planning and set out requirements for plan components (36 CFR 219.7(e)) and other content in land management plans. Forest Service Handbook 1909.12 provides procedural guidance for implementing land management planning direction for the 2012 Planning Rule. Every Forest Service plan must include the following components²:

- *Desired condition*: A description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (36 CFR 219.7(e)(1)(i)); Forest Service Handbook 1909.12, Chapter 20).
- *Guideline*: A constraint on project and activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions, avoid or mitigate undesirable effects, or meet applicable legal requirements (36 CFR 219.7(e)(1)(iv); Forest Service Handbook 1909.12, Chapter 20).
- *Objective*: A concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets (36 CFR 219.9(e)(1)(ii)) Forest Service Handbook 1909.12, Chapter 20).
- *Standard*: A mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1) (iii)) Forest Service Handbook 1909.12, Chapter 20).

The direction in the following standards and guidelines will be applied consistent with applicable valid existing rights, laws, and regulations.

Table 2.4 describes the management actions and allowable uses that comprise the Forest Service Proposed LUPA.

² Plan component definitions are based on generally accepted meanings under the 1982 rule and the Forest Service Plan Wording Style Guide 2009, http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5260265.pdf.

Table 2.4
Description of Forest Service Proposed LUPA¹

General Greater Sage-Grouse

GRSG-GEN-DC-001-Desired Condition – The landscape for GRSG encompasses large contiguous areas of native vegetation, approximately 6 to 62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush community compositions exist without invasive species, which have variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure, to meet seasonal requirements for food, cover, and nesting for GRSG.

GRSG-GEN-DC-002-Desired Condition – Anthropogenic disturbance is focused in nonhabitat areas outside of PHMA and GHMA³. Disturbance in GHMA is limited, and there is little to no disturbance in PHMA, except for valid existing rights and existing authorized uses.

GRSG-GEN-DC-003-Desired Condition – In GRSG management areas, including all seasonal habitats, 70 percent of lands capable of producing sagebrush have 10 to 30 percent sagebrush canopy cover and less than 10 percent conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for GRSG during this seasonal period. Specific desired conditions for GRSG based on seasonal habitat requirements are in **Table 2.3**.

GRSG-GEN-ST-004-Standard – In PHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3 percent of the total GRSG habitat within the biologically significant unit and the proposed project analysis area, regardless of ownership, and the new use will not cause exceedance of the 3 percent cap (**Appendix E, Methodology for Calculating Disturbance Caps**).

GRSG-GEN-ST-005-Standard – In PHMA and GHMA, only allow new authorized land uses if the residual impacts to GRSG or its habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, which will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Greater Sage-Grouse Mitigation Strategy (**Appendix G**).

GRSG-GEN-ST-006- Standard – During lekking (March 1 to April 30) restrict surface disturbing and disruptive activities, including noise at 10dB above ambient (not to exceed 20-24 dB) measured at the perimeter of an occupied lek, to lekking birds from 6 pm to 9 am within a buffer distance⁴ of 3.1 miles.

GRSG-GEN-GL-007-Guideline – During breeding and nesting (March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.

GRSG-GEN-GL-008-Guideline – When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in **Table 2.3**.

³ PHMA and GHMA may contain nonhabitat, but management direction would not apply to those areas of nonhabitat.

⁴ During lekking (March 1 to April 30), surface-disturbing and disruptive activities, including noise at 10 decibels above ambient (not to exceed 20 to 24 decibels) measured at the perimeter of an occupied lek, should be restricted to lekking birds from 6:00 pm to 9:00 am within a buffer distance of 3.1 miles.

Table 2.4
Description of Forest Service Proposed LUPA¹

GRSG-GEN-GL-009-Guideline – Development of tall structures within 2.0 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities for avian predators or by decreasing the use of an area, should be restricted within nesting habitat.

Adaptive Management

GRSG-AM-ST-010-Standard – If a hard trigger is identified, immediate action is necessary to stop a severe deviation from GRSG conservation objectives. Upon reaching a hard trigger, an appropriate component of a more restrictive alternative analyzed in the EIS will be implemented. The hard trigger response will be an entire restrictive alternative, or one or more appropriate components of a more restrictive alternative, such as the immediate cessation of authorizing land use authorizations. The Forest Service will review available and pertinent data in coordination with GRSG biologists from multiple agencies (**Section 2.7.1**, Adaptive Management Plan).

GRSG-AM-ST-011-Standard – If a soft trigger is identified, apply more conservative or restrictive implementation measures (e.g., extending seasonal restrictions for seasonal surface disturbing activities, modifying seasons of use for livestock grazing, and applying additional restrictions on discretionary activities) for the specific causal factor in the decline of populations and/or habitats, considering local knowledge and conditions.

Lands and Realty

Special Use Authorizations (nonrecreation)

GRSG-LR-SUA-O-012-Objective – In brood rearing and nesting habitats, retrofit existing tall structures (e.g., power poles, cellular towers) with perch deterrents or other anti-perching devices within 2 years of signing the Record of Decision.

GRSG-LR-SUA-ST-013-Standard – In PHMA and GHMA, restrict issuance of new lands special use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, hydropower, distribution lines, and cellular towers. Exceptions must be limited and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to GRSG will be avoided by the exception. Existing authorized uses will continue to be recognized.

GRSG-LR-SUA-ST-014-Standard – In PHMA and GHMA, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on GRSG or its habitats.

GRSG-LR-SUA-ST-015-Standard – In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers).

GRSG-LR-SUA-ST-016-Standard – In PHMA and GHMA, locate upgrades to existing transmission lines within the existing designated corridors or ROWs unless an alternate route would benefit GRSG or its habitats.

GRSG-LR-SUA-ST-017-Standard – In PHMA and GHMA, when a lands special use authorization is revoked or terminated and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).

GRSG-LR-SUA-ST-018-Standard – In PHMA and GHMA, if the potential long-term (i.e., greater than 5 years) impacts of mitigation (e.g., relocating or burying transmission lines and pipelines) to GRSG or its habitats are greater than the potential impacts from infrastructure associated with a new lands

Table 2.4
Description of Forest Service Proposed LUPA¹

SUA, do not pursue the mitigation. If mitigation is not feasible or would result in short-term (i.e., less than 5 years) or long-term impacts, incorporate additional terms and conditions in the special use authorization for protection of GRSG or its habitats.

GRSG-LR-SUA-ST-019-Standard – In PHMA and GHMA, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to GRSG or its habitats. When co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. New communication tower sites may be authorized for public safety.

GRSG-LR-SUA-GL-020-Guideline – In PHMA, outside of existing designated corridors and ROWs, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to GRSG are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines. New communication tower sites may be authorized for public safety.

Land Ownership Adjustments

GRSG-LR-LOA-ST-021-Standard – In PHMA, do not approve landownership adjustments unless the action results in a net conservation gain to GRSG or it will not directly or indirectly adversely impact GRSG conservation.

GRSG-LR-LOA-GL-022-Guideline – In PHMA and GHMA with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved GRSG population trends and habitats.

Land Withdrawal

Land Ownership Adjustments

GRSG-LR-LW-GL-023-Guideline – In PHMA, use land withdrawals as a tool, where appropriate, to prevent activities that will be detrimental to GRSG or its habitats.

Wind and Solar

GRSG-WS-ST-024-Standard – In PHMA, do not authorize new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).

GRSG-WS-GL-025-Guideline – In GHMA, new solar and wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect GRSG and its habitats.

Greater Sage-Grouse Habitat

GRSG-GRSGH-ST-026-Standard – Design habitat restoration projects to move towards desired conditions (**Table 2.3**).

GRSG-GRSGH-GL-027-Guideline – Sagebrush removal in GRSG breeding and nesting and wintering habitats should be avoided unless necessary to support attainment of desired habitat conditions (**Table 2.3**).

GRSG-GRSGH-GL-028-Guideline – When removing conifers that are encroaching into GRSG habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).

GRSG-GRSGH-GL-029-Guideline – In PHMA and GHMA, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.

Table 2.4
Description of Forest Service Proposed LUPA¹

GRSG-GRSGH-GL-030-Guideline – To facilitate safe and effective fire management actions, in PHMA and GHMA, fuels treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that may result in movement away from the GRSG desired conditions in **Table 2.3**) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of GRSG values to move away from desired conditions (**Table 2.3**).

GRSG-GRSGH-GL-031-Guideline – In PHMA and GHMA, native plant species should be used, when possible, to restore, enhance, or maintain desired conditions (**Table 2.3**).

GRSG-GRSGH-GL-032-Guideline – In PHMA, vegetation treatment projects should only be conducted if they restore, enhance, or maintain desired conditions (**Table 2.3**).

Livestock Grazing

GRSG-LG-DC-033-Desired Condition – In PHMA and GHMA, livestock grazing is managed to ensure for adequate nesting cover and do not conflict with the attainment of other vegetation attributes (**Table 2.3**).

GRSG-LG-ST-034-Standard – In PHMA, do not approve construction of water developments unless beneficial to GRSG habitat.

GRSG-LG-GL-035-Guideline – Grazing guidelines should be applied in each of the seasonal habitats in **Table 2.5**. If values in **Table 2.5** guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site capability analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in **Table 2.3**, consistent with the ecological site capability. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in **Table 2.5** would not apply to isolated parcels of National Forest System lands that have less than 200 acres of GRSG habitat.

Table 2.5
Grazing Guidelines for GRSG Seasonal Habitat

Seasonal Habitat	Grazing Guidelines
Breeding and nesting ¹ within 4 miles of occupied leks	Perennial grass height: ² When grazing occurs during breeding and nesting season (March 1 to June 15), manage for upland perennial grass height of 7 inches ^{3,4,5} When grazing occurs post breeding and nesting season (June 16 to October 30), manage for 4 inches ^{4,5,6} of perennial grass height
Brood-rearing and summer ¹	Retain an average stubble height of 4 inches for herbaceous riparian/mesic meadow vegetation ^{7,8}
Winter ¹	≤35% utilization of sagebrush

¹ For descriptions of seasonal habitat and seasonal periods of GRSG, see **Table 2.3**.

² Grass heights only apply in breeding and nesting habitat with greater than 10 percent sagebrush cover to support nesting

³ Holloran et al. 2005

⁴ Average droop height, assuming current vegetation composition has the capability to achieve these heights. Heights will be measured at the end of the nesting period (Connelly et al. 2000a).

⁵ Hagen et al. 2007

⁶ Stubble height to be measured at the end of the growing season

⁷ "In riparian brood-rearing habitat, GRSG prefer the lower vegetation (5 to 15 centimeters [2 to 6 inches] versus 30 to 50 centimeters [12 to 20 inches]; Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing (Neel 1980, Evans 1986); moderate use equates to a 10-centimeter (4-inch) residual stubble height for most grasses and sedges and 5 centimeters (2 inches) for Kentucky bluegrass (Mosley et al. 1997, Clary and Leininger 2000)" (Crawford et al. 2004)

⁸ Stubble height to be measured in the meadow areas used by GRSG for brood-rearing (not on the hydric greenline)

Table 2.4
Description of Forest Service Proposed LUPA¹

GRSG-LG-GL-036-Guideline – In PHMA, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired habitat conditions (**Table 2.3**).

GRSG-LG-GL-037-Guideline – Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during lekking (March 1 to April 30) should be restricted.

GRSG-LG-GL-038-Guideline – During breeding and nesting season (March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be avoided.

GRSG-LG-GL-039-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).

GRSG-LG-GL-040-Guideline – New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.

Fire Management

GRSG-FM-DC-041-Desired Condition – In PHMA and GHMA, the extent and spread of wildfire resulting in loss of sagebrush is minimized, considering firefighter and public safety and other high priority values

GRSG-FM-ST-042-Standard – In PHMA and GHMA, do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones unless necessary to facilitate site preparation for restoration of GRSG habitat consistent with desired conditions in **Table 2.3**.

GRSG-FM-ST-043-Standard – In PHMA and GHMA, if it is necessary to use prescribed fire to facilitate site preparation for restoration of GRSG habitat consistent with desired conditions in **Table 2.3**, the associated NEPA analysis must identify how the project would move towards GRSG desired conditions, why alternative techniques were not selected, and how potential threats to GRSG habitat would be minimized.

GRSG-FM-GL-044-Guideline – In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire.

GRSG-FM-GL-045-Guideline – In PHMA and GHMA, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species to meet resource objectives, if analysis demonstrated that nonnative plants will not damage GRSG habitat in the long term.

GRSG-FM-GL-046-Guideline – In PHMA and GHMA, fuel treatments should be designed to restore, enhance, or maintain GRSG habitat.

GRSG-FM-GL-047-Guideline – Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in PHMA and GHMA should be avoided.

GRSG-FM-GL-048-Guideline – In PHMA and GHMA, cross-country vehicle travel during fire operations should be restricted, whenever safe and practical to do so as determined by fireline leadership and incident commanders.

GRSG-FM-GL-049-Guideline – In PHMA and GHMA, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be

Table 2.4
Description of Forest Service Proposed LUPA¹

determined by fireline leadership and incident commanders.

GRSG-FM-GL-050-Guideline – In PHMA and GHMA, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).

GRSG-FM-GL-051-Guideline – In PHMA and GHMA, roads and natural fuel breaks should be incorporated into fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.

GRSG-FM-GL-052-Guideline – In PHMA and GHMA, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.

GRSG-FM-GL-053-Guideline – Unit-specific GRSG fire management toolboxes containing maps, lists, contact information for qualified resource advisors, local guidance, and relevant information should be developed and used.

GRSG-FM-GL-054-Guideline – Localized maps of PHMA and GHMA should be provided to dispatch officers and extended attack incident commanders to use when prioritizing wildfire suppression resources and designing suppression tactics.

GRSG-FM-GL-055-Guideline – In or near PHMA and GHMA, a GRSG resource advisor should be assigned to all extended attack fires.

GRSG-FM-GL-056-Guideline – On critical fire weather days, protection of GRSG habitat should receive high consideration, along with other high values, when positioning resources.

GRSG-FM-GL-057-Guideline – Line officers should be involved in setting pre-season wildfire response priorities and, during period of multiple fires, prioritizing protection of PHMA and GHMA.

GRSG-FM-GL-058-Guideline – In PHMA and GHMA, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage.

GRSG-FM-GL-059-Guideline – In PHMA and GHMA, to minimize sagebrush loss, mop-up should be conducted where the burned areas adjoin unburned islands, doglegs, or other habitat features, as safety and available resources allows.

Recreation

GRSG-R-DC-060-Desired Condition – In PHMA, recreation activities are balanced with the ability of the land to support them, while meeting GRSG seasonal habitat desired conditions (**Table 2.3**) and creating minimal user conflicts.

GRSG-R-ST-061-Standard – In PHMA and GHMA, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on GRSG or its habitats.

GRSG-R-GL-062-Guideline – In PHMA and GHMA, terms and conditions that protect and/or restore GRSG habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore GRSG habitat.

GRSG-R-GL-063-Guideline – In PHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to GRSG and/or its habitats or the development is required for visitor safety.

Table 2.4
Description of Forest Service Proposed LUPA¹

Roads/Transportation

GRSG-RT-DC-064-Desired Condition – In PHMA and GHMA, within the travel management system, GRSG experience minimal disturbance during breeding and nesting (March 1 to June 15) and wintering (November 1 to February 28) periods.

GRSG-RT-ST-065-Standard – In PHMA and GHMA, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and compensate for impacts.

GRSG-RT-ST-066-Standard – Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to April 30) from 6 pm to 9 am.

GRSG-RT-ST-067-Standard – In PHMA, prohibit public access on temporary energy development roads, unless consistent with all other terms and conditions included in the forest plan.

GRSG-RT-GL-068-Guideline – In PHMA, new roads and road realignments should be designed and administered to reduce collisions with GRSG.

GRSG-RT-GL-069-Guideline – In PHMA, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.

GRSG-RT-GL-070-Guideline – In PHMA and GHMA, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 2.3).

GRSG-RT-GL-071-Guideline – In PHMA and GHMA, dust abatement terms and conditions should be included in road use permits when dust has the potential to impact GRSG.

GRSG-RT-GL-072-Guideline – In PHMA and GHMA, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.

Minerals

Fluid Minerals – Unleased

GRSG-M-FMUL-ST-073-Standard – In PHMA, any new oil and gas leases must include an NSO stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer with unanimous concurrence from a team of agency GRSG experts from the Fish and Wildlife Service, Forest Service, and State wildlife agency if:

- There would be no direct, indirect, or cumulative effects to GRSG or its habitats or
- Granting the exception provides an alternative to a similar action occurring on a nearby parcel and
- The exception provides a clear net conservation gain to GRSG.

See **Appendix D**, Stipulations and Conditions of Approval Applicable to Mineral Leasing and Land Use Authorizations.

**Table 2.4
Description of Forest Service Proposed LUPA¹**

GRSG-M-FMUL-ST-074-Standard – In GHMA, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect GRSG and its habitat.

Fluid Minerals – Leased

GRSG-M-FML-ST-075-Standard – In PHMA, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.

GRSG-M-FML-ST-076-Standard – In PHMA, when facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in **Table 2.3**.

GRSG-M-FML-ST-077-Standard – In GHMA, authorize new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect GRSG and its habitats, consistent with the terms and conditions of the permit.

GRSG-M-FML-ST-078-Standard – Locate compressor stations on portions of a lease that are nonhabitat and are not used by GRSG, and if there would be no direct, indirect, or cumulative effects on GRSG or its habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise, consistent with GRSG-GEN-ST-006-Standard.

GRSG-M-FML-ST-079-Standard – In PHMA and GHMA, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to GRSG and its habitat, such as locating facilities in nonhabitat areas first and then in the least suitable habitat.

GRSG-M-FML-GL-080-Guideline – In PHMA and GHMA, operators should be encouraged to reduce disturbance to GRSG habitat. At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to GRSG habitat, where appropriate and feasible and consistent with the rights granted to the lessee.

GRSG-M-FML-GL-081-Guideline – On existing federal leases in PHMA, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to GRSG based on vegetation, topography, or other habitat features.

GRSG-M-FML-GL-082-Guideline – In PHMA and GHMA, where the federal government owns the surface and the mineral estate is in non-federal ownership coordinate with the mineral estate owner/lessee to apply appropriate stipulations, conditions of approval, conservation measures and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.

Fluid Minerals – Leased

GRSG-M-FMO-ST-083-Standard – In PHMA, do not authorize employee camps.

GRSG-M-FMO-ST-084-Standard – In PHMA, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.

GRSG-M-FMO-GL-085-Guideline – In PHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.

GRSG-M-FMO-GL-086-Guideline – In PHMA and GHMA, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available

Table 2.4
Description of Forest Service Proposed LUPA¹

techniques to improve vegetation reestablishment.

GRSG-M-FMO-GL-087-Guideline – In PHMA and GHMA, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include:

- Increase the depth of ponds to accommodate a greater volume of water than is discharged.
- Build steep shorelines (greater than 2 feet) to reduce shallow water and aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.
- Maintain the water level below that of rooted aquatic and upland vegetation. Avoid flooding terrestrial vegetation in flat terrain or low-lying areas.
- Construct dams or impoundments that restrict down-slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.
- Line the channel where discharge water flows into the pond with crushed rock or use a horizontal pipe to discharge inflow directly into existing open water.
- Line the overflow spillway with crushed rock and construct the spillway with steep sides.
- Fence pond sites to restrict access by livestock and other wild ungulates.
- Remove or reinject produced water.
- Treat waters with larvicides to reduce mosquito production where water occurs on the surface.

GRSG-M-FMO-GL-088-Guideline – In PHMA and GHMA, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

Coal Mines – Unleased

GRSG-M-CMUL-ST-089-Standard – In PHMA, do not authorize surface disturbances (e.g., appurtenant facilities) for new underground coalmines.

Coal Mines – Leased

GRSG-M-CML-ST-090-Standard – In PHMA, do not authorize new appurtenant surface facilities for existing underground mines unless no technical feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of PHMA, co-locate them with any existing disturbed areas, if possible. If co-location is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by MSHA mine-plan approval process, and locate the facilities in an area least harmful to GRSG habitats based on vegetation, topography, or other habitat features.

GRSG-M-CML-GL-091-Guideline – In PHMA and GHMA, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore GRSG and its habitat for long-term viability.

Locatable Minerals

GRSG-M-LM-ST-092-Standard – In PHMA, only approve Plans of Operation if they include mitigation to protect GRSG and its habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

GRSG-M-LM-GL-093-Guideline – In PHMA and GHMA to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under

Table 2.4
Description of Forest Service Proposed LUPA¹

the General Mining Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

GRSG-M-LM-GL-094-Guideline – In PHMA and GHMA, abandoned mine sites should be closed or mitigated to reduce predation of GRSG by eliminating tall structures that could provide nesting opportunities and perching sites for predators.

Nonenergy Leasable Minerals

GRSG-M-NEL-GL-095-Guideline – In PHMA and GHMA, at the time of issuance of prospecting permits, exploration licenses and leases, or readjustment of leases, the Forest Service should provide recommendations to the Bureau of Land Management for the protection of GRSG and its habitats.

GRSG-M-NEL-GL-096-Guideline – In PHMA and GHMA, the Forest Service should recommend to the Bureau of Land Management that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to GRSG and its habitat.

Mineral Materials

GRSG-M-MM-ST-097-Standard – In PHMA, do not authorize new mineral material disposal or development.

GRSG-M-MM-ST-098-Standard – In PHMA, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to April 30 between 6pm and 9am within 2 miles from the perimeter of occupied leks, within the biologically significant unit and proposed project area if doing so does not exceed the disturbance cap..

GRSG-M-MM-ST-099-Standard - In PHMA and GHMA, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to restore, enhance, or maintain desired habitat conditions (**Table 2.3**).

2.7 ADAPTIVE MANAGEMENT, MONITORING, AND MITIGATION

The following adaptive management plan, monitoring, and regional mitigation apply to the action alternatives, Alternatives B, C, D, and the BLM and Forest Service Proposed LUPAs.

2.7.1 Adaptive Management Plan

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 learning 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.

In relation to the BLM/Forest Service’s National Greater Sage-grouse Planning Strategy, adaptive management would help identify if GRSG conservation measures presented in this EIS contain the needed level of certainty for

effectiveness. Principles of adaptive management are incorporated into the conservation measures in the LUPA to ameliorate threats to a species, thereby increasing the likelihood that the conservation measure and LUPA would be effective in reducing threats to that species. The following provides the BLM/Forest Service's adaptive management strategy for the Northwest Colorado Greater Sage-Grouse LUPA. In making amendments to this LUP, the BLM and Forest Service will coordinate with USFWS as the BLM and Forest Service continue to meet their objective of conserving, enhancing, and restoring GRSG habitat by reducing, minimizing, or eliminating threats to that habitat.

Adaptive Management and Monitoring

This EIS contains a monitoring framework (**Section 2.6.2**, Monitoring of the Greater Sage-Grouse Planning Strategy) that includes an effectiveness monitoring component. The agencies intend to use the data collected from the effectiveness monitoring to identify any changes in habitat conditions related to the goals and objectives of the LUPA and other range-wide conservation strategies (US Department of the Interior 2004; Stiver et al. 2006; USFWS 2013). The information collected through the monitoring framework (**Section 2.6.2**) would be used by the BLM/Forest Service to determine when adaptive management hard and soft triggers (discussed below) are met.

Adjustments to PHMA or GHMA boundaries should be made if BLM biologists, in coordination with state of Colorado biologists, 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) would be used, as determined on a case-by-case basis considering site-specific issues.

Adaptive Management Triggers

Soft Triggers

Soft triggers represent an intermediate threshold indicating that management changes are needed at the project/implementation level to address habitat and population losses. If a soft trigger is identified, the BLM/Forest Service would apply more conservative or restrictive implementation conservation measures to mitigate for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions. For example, monitoring data within an already federally authorized project area within a given GRSG population area indicates that there has been a slight decrease in GRSG numbers in this area. Data also suggest the decline may be attributed to GRSG collisions with monitoring tower guy-wires from this federally authorized project. The BLM then receives an application for a new tower within the same GRSG population area. The response would be to require the new authorization's tower guy-wires to be flagged. Monitoring data then show the decline is curtailed. The adaptive management soft trigger response is to require future applications to flag for guy-wires. These types of adjustments would be

made to preclude tripping a “hard” trigger (which signals more severe habitat loss or population declines). While there should be no expectation of hitting a hard trigger, if unforeseen circumstances occur that trip either a habitat or population hard trigger, more restrictive management would be required.

Hard Triggers

Hard triggers represent a threshold indicating that immediate action is necessary to stop a severe deviation from GRSG conservation objectives as set forth in the BLM and Forest Service LUPAs. The hard trigger and the proposed management response to this trigger are presented below.

Northwest Colorado Adaptive Management Plan

The Northwest Colorado Adaptive Management Plan includes an overarching adaptive management strategy consistent with national policy that includes soft and hard triggers for specific populations and an approach for developing responses. These triggers are not specific to any particular project, but identify habitat and population thresholds. The BLM and Forest Service, in cooperation with USFWS and the State of Colorado, have identified appropriate triggers. Triggers would be based on the two key metrics that would be monitored: habitat loss and/or population declines.

Soft Triggers

Soft triggers represent an intermediate threshold indicating that management changes are needed at the LUPA implementation level to address habitat or population losses. If a soft trigger is tripped, the BLM/Forest Service would change management to a more conservative or restrictive implementation conservation measure to mitigate for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions. These adjustments should be made to preclude tripping a “hard” trigger (which signals more severe habitat loss or population declines).

During implementation of this LUPA, population trends would be monitored by the Northwest Colorado Sage-Grouse Statewide Implementation Team, which would be made up of existing local population GRSG working groups (e.g., Northwest Colorado, Parachute-Piceance-Roan, Middle Park, and North Park), BLM/Forest Service biologists, and CPW biologists. This group would meet annually and would evaluate the health of each population and make recommendations to the BLM/Forest Service on any changes to fine site management. This statewide implementation team would also evaluate the effects to GRSG habitat and populations due to BLM/Forest Service permitted activities throughout the previous year(s) and make recommendations for changes in management or locations that should be avoided, for example. This group would also evaluate the effectiveness of mitigation and make recommendations on alternative mitigation strategies and locations, such as the Colorado Habitat Exchange. This team would also evaluate important locations each year, such as lek sites.

Restrictive management prescriptions would help ensure a greater degree of certainty of effectiveness in ameliorating a targeted threat so that there is less of a need to prescribe a detailed adaptive management decision strategy within the Proposed LUPA to demonstrate certainty of effectiveness. The Northwest Colorado LUPA includes conditions under which activities could be permitted in GRSG habitat and criteria for granting exceptions, modifications, or waivers for lease stipulations. Soft triggers for restrictive management actions would include evaluation of the effectiveness of the minimization, mitigation, and location of permitted activities in the context of the PAC.

Disturbance Cap Trigger

The disturbance cap trigger represents a threshold indicating that more restrictive action is necessary to prevent further degradation of GRSG habitat.

In Northwest Colorado, the disturbance cap trigger would be defined as habitat loss and/or degradation measured as the 3 percent disturbance cap in PHMA calculated by biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ).

If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within PHMA in any given biologically significant unit, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872 and valid existing rights) would be permitted by BLM within PHMA in any given biologically significant unit until the disturbance has been reduced to less than the cap.

If the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area in a PHMA, then no further anthropogenic disturbance would be permitted by 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 General Mining Law of 1872 and valid existing rights).

Habitat disturbance would be monitored by the BLM/Forest Service and if the disturbance cap thresholds are exceeded in any PAC or Colorado MZ, more restrictive management would be implemented. The BLM/Forest Service would not grant modifications, exceptions, or waivers for existing lease stipulations if the intermediate trigger has been met. In addition, the BLM would defer new leasing in the Colorado MZ/PAC until the habitat is reclaimed and back under the disturbance cap.

Hard Trigger

In the event that soft triggers and disturbance caps prove to be ineffective, the hard trigger represents a threshold indicating that immediate action is necessary to stop a severe deviation from GRSG conservation objectives. The hard trigger is intentionally set at or below the normal range of variation to provide a threshold of last resort should either chronic degradation or a catastrophic

event occur. The hard trigger is not intended to be an on-again/off-again toggle that would be exceeded periodically throughout the life of the LUPA. Colorado GRSG occur in six distinct populations. Two of these populations (Northwest Colorado and North Park) account for about 88 percent of the males in Colorado. Northwest Colorado includes Colorado MZs 1 through 10. North Park includes Colorado MZ 11. The remaining four populations are smaller by an order of magnitude, and, even in the aggregate, do not provide the significant numbers of GRSG necessary to contribute meaningfully to the hard trigger, and, in some cases, lack the long-term population trend information necessary to support trigger implementation. All six populations are important to GRSG conservation in Colorado; however, only the Northwest Colorado and North Park populations are large enough to reliably indicate the level of severe decline intended by this hard trigger. While the hard triggers focus on the two largest populations, all six populations should be rigorously managed via the soft triggers. If soft triggers work as intended, a hard trigger should never be breached.

Development of the Hard Trigger

The hard trigger is based on two metrics: GRSG lek (high male) counts and habitat loss.

Lek Counts. The lek count threshold is determined from the 25 percent quartile of the high male count in each of the Northwest Colorado and North Park populations over the period of years for which consistent lek counts are available: 17 years from 1998 to 2014 for Northwest Colorado and 41 years from 1974 to 2014 for North Park. The 25 percent quartiles were determined using the annual high male counts rather than the 3-year running average to ensure that normal variation in lek counts is above the threshold. The hard trigger for Northwest Colorado is 1,575 counted males, and for North Park is 670 counted males.

Habitat Loss. The habitat loss threshold is determined by 30 percent cumulative loss of PHMA, measured independently in Northwest Colorado and North Park. For the purpose of the hard trigger, habitat loss will be measured from the date of the ROD on this LUPA. Hard trigger habitat loss includes both anthropogenic (i.e., the disturbance cap) and non-anthropogenic forms of habitat loss (e.g., wildfire). The 30 percent habitat loss calculation is limited to loss of PHMA in each of Northwest Colorado and North Park populations; GHMA and any habitat loss in the other four populations are not included in the hard trigger. Restored or recovered habitat is not considered in this threshold, although it is tracked and summarized by the BLM's data management system.

Breaching the Hard Trigger

In order for the hard trigger to be breached, both the lek count (1,575 males in Northwest Colorado and 670 males in North Park) and habitat loss thresholds must be breached in both the Northwest Colorado and North Park populations

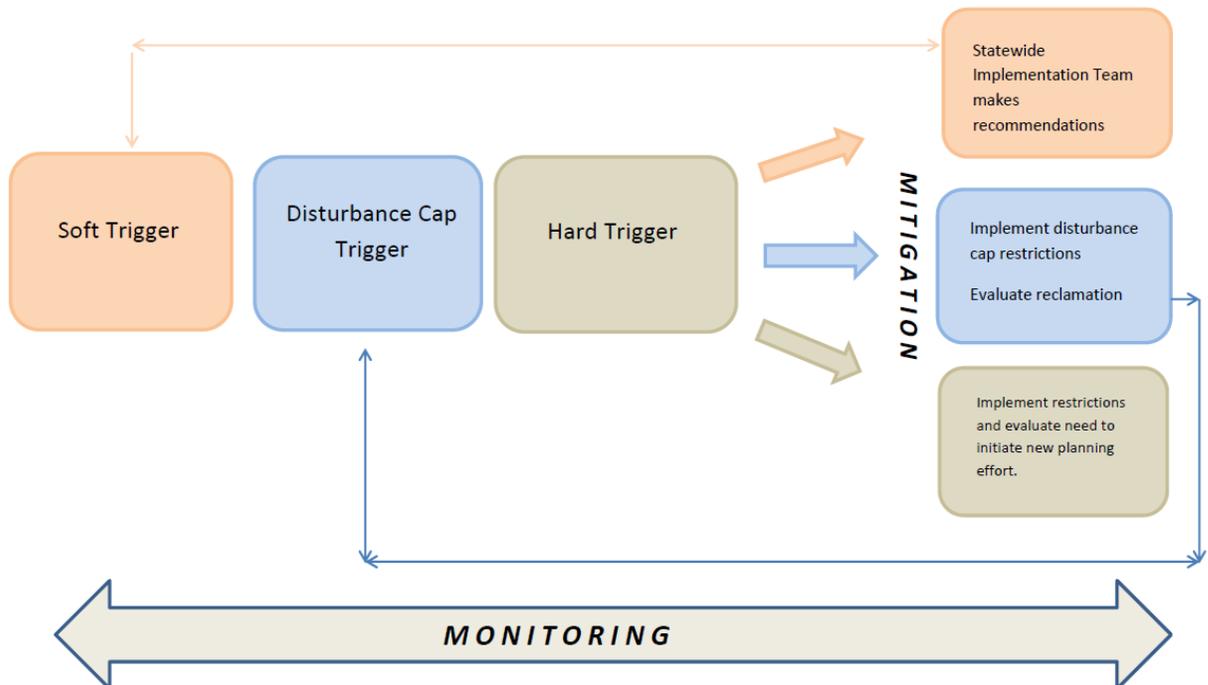
simultaneously. In any other set of circumstances (e.g., when a threshold is violated in a single population), the management response will be as described in the *Soft Trigger* section, above.

Lek Counts. The lek count threshold is compared to the 3-year running average of the high male count in Northwest Colorado and North Park, measured independently. The 3-year running average value is used because it is considered to be more indicative of the population trend than annual high male counts. The 3-year running average in Northwest Colorado and North Park must fall below the threshold concurrently for this portion of the hard trigger to be breached. The CPW will conduct lek counts and provide this information annually to the statewide implementation team as described in the *Soft Trigger* section, above.

Habitat Loss. The habitat loss threshold is measured by 30 percent cumulative loss of PHMA, beginning when the ROD on this LUPA is signed. The loss will be measured independently in Northwest Colorado and North Park. The BLM will track anthropogenic and non-anthropogenic habitat loss. Summary information will be reviewed by the statewide implementation team as described in the *Soft Trigger* section, above.

Hard Trigger Response

Upon determination that a hard trigger has been tripped, the BLM and/or Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. In addition, within 14 days of a determination that a hard trigger has been tripped, the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team will convene to develop an interim response strategy and initiate an assessment to determine the causal factor or factors (hereafter the “causal factor assessment”).



2.7.2 Monitoring of the Greater Sage-Grouse Planning Strategy

The BLM's planning regulations, specifically 43 CFR 1610.4-9, require that land use plans establish intervals and standards for monitoring based on the sensitivity of the resource decisions. LUP monitoring is the process of tracking the implementation of LUP decisions (implementation monitoring) and collecting data/information necessary to evaluate the effectiveness of LUP decisions (effectiveness monitoring). For GRSG, these types of monitoring are also described in the criteria found in the Policy for Evaluation of Conservation Efforts When Making Listing Decisions (50 CFR Vol. 68, No. 60). One of the Policy for Evaluation of Conservation Efforts When Making Listing Decisions criteria evaluates whether provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided.

A guiding principle in the BLM National Sage-grouse Conservation Strategy (US Department of the Interior 2004) is that "the Bureau is committed to sage-grouse and sagebrush conservation and would continue to adjust and adapt our National Sage-grouse Strategy as new information, science, and monitoring results evaluate effectiveness over time." In keeping with the WAFWA Sage-grouse Comprehensive Conservation Strategy (Stiver et al. 2006) and the Greater Sage-grouse Conservation Objectives: Final Report (USFWS 2013), the BLM and Forest Service would monitor implementation and effectiveness of conservation measures in GRSG habitats.

On March 5, 2010, USFWS' 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered were posted as a Federal Register notice (75 *Federal Register* 13910-14014, March 23, 2010). This notice stated:

"...the information collected by BLM could not be used to make broad generalizations about the status of rangelands and management actions. There was a lack of consistency across the range in how questions were interpreted and answered for the data call, which limited our ability to use the results to understand habitat conditions for sage-grouse on BLM lands."

Standardization of monitoring methods and implementation of a defensible monitoring approach (within and across jurisdictions) will resolve this situation. The BLM, Forest Service, and other conservation partners use the resulting information to guide implementation of conservation activities.

Monitoring strategies for GRSG habitat and populations must be collaborative, as habitat occurs across jurisdictional boundaries (52 percent on BLM-administered lands, 31 percent on private lands, 8 percent on National Forest System lands, 5 percent on state lands, 4 percent on tribal and other federal lands) (75 *Federal Register* 13910, March 23, 2010), and state fish and wildlife agencies have primary responsibility for population level wildlife management,

including population monitoring. Therefore, population efforts will continue to be conducted in partnership with state fish and wildlife agencies. The BLM and Forest Service have finalized a monitoring framework, which can be found in **Appendix F**, Greater Sage-Grouse Monitoring Framework. This framework describes the process that the BLM and Forest Service will use to monitor implementation and effectiveness of RMP/LUP decisions. The monitoring framework includes methods, data standards, and intervals of monitoring at broad and mid scales; consistent indicators to measure and metric descriptions for each of the scales; analysis and reporting methods; and the incorporation of monitoring results into adaptive management. The need for fine-scale and site-specific habitat monitoring may vary by area depending on existing conditions, habitat variability, threats, and land health. Indicators at the fine and site scales will be consistent with the Habitat Assessment Framework; however, the values for the indicators could be adjusted for regional conditions.

More specifically, the framework discusses how the BLM and Forest Service will monitor and track implementation and effectiveness of planning decisions (e.g., tracking of waivers, modifications, and site-level actions). The two agencies will monitor the effectiveness of RMP/LUP decisions in meeting management and conservation objectives. Effectiveness monitoring will include monitoring disturbance in habitats, as well as landscape habitat attributes. To monitor habitats, the BLM and Forest Service will measure and track attributes of occupied habitat, PHMA, and GHMA at the broad scale, and attributes of habitat availability, patch size, LCHMA, edge effect, and anthropogenic disturbances at the mid-scale. Disturbance monitoring will measure and track changes in the amount of sagebrush in the landscape and changes in the anthropogenic footprint, including change energy development density. The framework also includes methodology for analysis and reporting for field offices, states, ranger districts, BLM districts, National Forests, and Forest regions, including geospatial and tabular data for disturbance mapping (e.g., geospatial footprint of new permitted disturbances) and management actions effectiveness. See **Appendix E** (Methodology for Calculating Disturbance Caps).

The national monitoring framework (**Appendix F**, Greater Sage-Grouse Monitoring Framework) details the methodology that the BLM and Forest Service would use to monitor and track implementation and effectiveness of planning decisions on a broad and mid-scale as discussed above. The monitoring strategy for the Northwest Colorado Proposed LUPA would track disturbance at the fine scale, specifically those decisions and management actions proposed by the Northwest Colorado Proposed LUPA/Final EIS. The disturbance inventory would be used to inform the adaptive management plan. The Northwest Colorado Proposed LUPA includes a 3 percent cap on anthropogenic disturbance in PHMA. Anthropogenic disturbance refers to physical removal of habitat including, but not limited to: paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, pipelines, and mines. See **Appendix E** (Methodology for Calculating

Disturbance Caps) for more details regarding disturbance caps and **Appendix H** (Guidelines for Implementation) for details specific to Northwest Colorado implementation.

2.7.3 Regional Mitigation

The intent of the Mitigation Framework is to achieve a net conservation gain to the GRSG. To do so, in undertaking BLM/Forest Service 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. Actions that result in habitat loss and degradation include those identified as threats that contribute to GRSG disturbance as identified by USFWS in its 2010 listing decision (75 *Federal Register* 13910) and shown in Table 2 in the Greater Sage-Grouse Monitoring Framework (**Appendix F**) This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which states “to initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA.”

Mitigation Standards

In 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. Mitigation will follow the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20; e.g., avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/Forest Service management actions and authorized third-party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation (see the concepts of durability, timeliness, and additionality as described further in the Glossary).

Greater Sage-Grouse Conservation Team

The BLM/Forest Service will establish a WAFWA MZ Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of GRSG, within 90 days of the issuance of the Record of Decision on this EIS. This Team will develop a WAFWA MZ Regional Mitigation Strategy (hereafter, Regional

Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from states across the WAFWA MZ (see **Section 2.6.2**, Monitoring of the Greater Sage-Grouse Planning Strategy). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see **Section 2.6.1**, Adaptive Management Plan).

The BLM/Forest Service will invite governmental and tribal partners to participate in this Team, including the State Wildlife Agency and USFWS, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that Act. The BLM/Forest Service will strive for a collaborative and unified approach between federal agencies (e.g., USFWS, BLM, and Forest Service), tribal governments, state and local government(s), and other stakeholders for GRSG conservation. The Team will provide advice and will not make any decisions that impact federal lands. The BLM/Forest Service will remain responsible for making decisions that affect federal lands.

Developing a Regional Mitigation Strategy

The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM/Forest Service management actions and third-party actions that result in habitat loss and degradation. The Regional Mitigation Strategy will be developed within one year of the issuance of the Record of Decision on this EIS. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the states, BLM Field Offices, and Forests within the WAFWA MZ's boundaries.

Regional mitigation is a landscape-scale approach to mitigating impacts to resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e., avoidance, minimization, and compensation; additionality, timeliness, and durability) and further explained in **Appendix G**, Greater Sage-Grouse Mitigation Strategy.

In the time period before the Regional Mitigation Strategy is developed, the BLM will consider regional conditions, trends, and sites to the greatest extent possible when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.

Incorporating the Regional Mitigation Strategy into Land Use Authorization Analyses

The BLM/Forest Service will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM/Forest Service management

actions and third-party actions that result in habitat loss and degradation and the appropriate mitigation actions will be carried forward into the decision.

Implementing a Compensatory Mitigation Program

Consistent with the principles identified above, the BLM/Forest Service need to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. In order to align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a state level (as opposed to a WAFWA MZ, a Field Office, or a Forest), in collaboration with BLM and Forest Service's partners (e.g., federal, tribal, and state agencies).

To ensure transparent and effective management of the compensatory mitigation funds, the BLM/Forest Service, within one year of the issuance of the Record of Decision on this EIS, will enter into a contract or agreement with a third party to help manage the state-level compensatory mitigation funds. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM/Forest Service will remain responsible for making decisions that affect federal lands.

2.8 DRAFT LUPA/EIS ALTERNATIVES

The following are alternatives to the Proposed Plan and were presented and analyzed in the Draft LUPA/EIS. Some alternatives have been refined based on public comment. A complete description of each alternative is presented in **Table 2.7** (Alternative A) and **Table 2.8** (Alternatives B, C, and D, and BLM and Forest Service Proposed LUPAs). **Table 2.6** summarizes these alternatives. **Section 2.7** discusses the selection of the Proposed LUPA.

Based on substantive comments from other governmental agencies and the public on the Draft LUPA/EIS, the BLM and Forest Service prepared a Final EIS, which includes identification of a Proposed LUPA. The Preferred Alternative (Alternative D) in the Draft LUPA/EIS was revised as the result of evaluating comments received on the Draft LUPA/EIS, and is now identified as the Proposed LUPA. The Final EIS also incorporates the other alternatives (Alternatives A, B, C, and D) analyzed in the Draft LUPA/EIS, with editorial changes, technical changes, and factual corrections made as appropriate. The BLM and Forest Service also improved the analysis of alternatives (Chapter 4) based on external and internal comments.

2.8.1 Alternative A (No Action)

Alternative A meets the CEQ requirement that a no action alternative be considered. This alternative continues current management direction and prevailing conditions derived from the existing field office and forest planning documents. Goals and objectives for resources and resource uses are based on the most recent RMP/LUP decisions, along with associated amendments, activity and implementation level plans, and other management decision documents.

Laws, regulations, and BLM policies that supersede RMP/LUP decisions would apply.

Goals and objectives for BLM-administered lands and mineral estate would not change. Appropriate and allowable uses and restrictions pertaining to activities such as mineral leasing and development, recreation, construction of utility corridors, and livestock grazing would also remain the same. The BLM would not modify existing or establish additional criteria to guide the identification of site-specific use levels for implementation activities.

2.8.2 Management Common to Action Alternatives

Allowable uses and management actions from the existing RMPs and LUP that remain valid and do not require revision have been carried forward to all of the proposed alternatives. Other decisions are common only to the action alternatives (B, C, and D and the Proposed LUPA).

Although each alternative emphasizes a slightly different mix of resources and resource uses, all five alternatives contain the following goals:

- Conserve, enhance and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain or increase their abundance and distribution, in cooperation with other conservation partners.
- Comply with state and federal laws, regulations, policies, and standards, including FLPMA multiple use mandates and National Forest Management Act mandates.
- Implement actions originating from laws, regulations, and policies and conform to day-to-day management, monitoring, and administrative functions not specifically addressed (see **Section 2.6.1**, Adaptive Management Plan, **Section 2.6.2**, Monitoring of the Greater Sage-Grouse Planning Strategy, and **Section 2.6.3**, Regional Mitigation).
- Preserve valid existing rights, which include any leases, claims, or other use authorizations established before a new or modified authorization, change in land designation, or new or modified regulation is approved. Existing fluid mineral leases are managed through COAs.
- Collaborating with adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, and other individuals and organizations, as needed, to monitor and implement decisions to achieve desired resource conditions.
- Providing for firefighter and public safety protection from wildfire.

In addition to the shared elements above, allowable uses, and management actions common to all five alternatives (as indicated by a single cell across the table row) are listed in **Table 2.7** and **Table 2.8**, in **Section 2.8**, Summary Comparison of Alternatives.

The appendices provide supplemental information not included in **Table 2.7** and **Table 2.8**. For example, **Appendix A** (Figures) contains related maps, and **Appendix D** (Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations) describes in detail stipulations included in the Proposed LUPA for oil and gas leasing and other surface-disturbing activities.

Where more restrictive land use allocations or decisions are made in existing RMPs, those more restrictive land use allocations or decisions would remain in effect and would not be amended by this LUPA.

2.8.3 Alternative B

GRSG conservation measures in *A Report on National Greater Sage-Grouse Conservation Measures* (NTT 2011) were used to form BLM management direction under Alternative B. Management actions by the BLM in concert with other state and federal agencies, and private land owners play a critical role in the future trends of GRSG populations. To ensure BLM management actions are effective and based on the best available science, the National Policy Team created a NTT in August 2011. The BLM's objective for chartering this planning strategy effort was to develop new or revised regulatory mechanisms, through RMPs, to conserve and restore GRSG and its habitat on BLM-administered lands on a range-wide basis over the long term. Conservation measures included in Alternative B focus primarily on GRSG PHMA and include a 3 percent disturbance cap in PHMA. PHMA have the highest conservation value to maintaining or increasing GRSG populations.

2.8.4 Alternative C

During scoping for the Northwest Colorado GRSG LUPA/EIS, individuals and conservation groups submitted management direction recommendations for protection and conservation of GRSG and its habitat. The recommendations, in conjunction with resource allocation opportunities and internal sub-regional BLM input, were reviewed in order to develop BLM management direction for GRSG under Alternative C. Conservation measures in Alternative C are mostly focused on ADH (PHMA, GHMA, and LCHMA). These areas have been identified by CPW in coordination with respective BLM offices. Conservation measures included in Alternative C would include a 3 percent cap on disturbance in ADH.

2.8.5 Alternative D

Alternative D is the Northwest Colorado Sub-region's adjustments alternative, which emphasizes balancing resources and resource use among competing human interests, land uses, and the conservation of natural and cultural resource values, while sustaining and enhancing ecological integrity across the

landscape, including plant, wildlife, and fish habitat. This alternative incorporates adjustments to the NTT report (NTT 2011) to provide a balanced level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses. Anthropogenic surface disturbance would be managed not to exceed 5 percent in ecological sites that support sagebrush within PHMA (**Figure 2-1** in **Appendix A**, Figures). Under Alternative D, the WRFO Reclamation Plan (Appendix G in the Draft LUPA, Surface Reclamation Plan) would be followed for reclamation of lands to go back into rotation under the disturbance caps.

2.9 SUMMARY COMPARISON OF PROPOSED PLAN AMENDMENT AND DRAFT ALTERNATIVES

This section summarizes and compares Alternatives A through D and the BLM and Forest Service Proposed LUPAs considered in the Final EIS. Combined with the appendices and maps, **Table 2.6** provides the differences among the alternatives relative to what they establish and where they occur. The table compares the differences with the most potential to affect resources among the alternatives.

Resource or Resource Use	Alt A	Alt B	Alt C	Alt D	BLM Proposed LUPA	Forest Service Proposed LUPA
Resources						
GRSG Habitat Areas (BLM/Forest Service surface and federal mineral estate, including coal)		<i>Figure 1-4</i>	<i>Figure 1-4</i>	<i>Figure 1-4</i>	<i>Figure 1-4</i>	<i>Figure 1-4</i>
Priority Habitat Management Areas (PHMA)	0	1,571,900	1,571,900	1,571,900	1,571,900	5,000
General Habitat Management Areas (GHMA)	0	1,119,800	1,119,800	1,119,800	1,119,800	15,000
Linkage/Connectivity Habitat Management Area (LCHMA)	0	181,900	181,900	181,900	181,900	0
Resource Uses						
Livestock Grazing	<i>Figure 2-2</i>	<i>Figure 2-2</i>	<i>Figure 2-3</i>	<i>Figure 2-2</i>	<i>Figure 2-2</i>	<i>Figure 2-2</i>
Acres closed to all classes of livestock grazing (acres) (including outlying areas)	0	0	1,751,600	0	0	0
Comprehensive Travel and Transportation Management						
Open to cross-country OHV travel	202,600	202,600	202,600	202,600	202,600	0
Closed to OHV travel	52,600	52,600	52,600	52,600	52,600	0

Table 2.6
Comparative Summary of Allocation Decisions of the Proposed Land Use Plan Amendment and Draft Alternatives (Acres)

Resource or Resource Use	Alt A	Alt B	Alt C	Alt D	BLM Proposed LUPA	Forest Service Proposed LUPA
Lands and Realty	<i>Figure 2-4</i>	<i>Figure 2-5</i>	<i>Figure 2-6</i>	<i>Figure 2-7</i>	<i>Figure 2-9</i>	<i>Figure 2-9</i>
ROW exclusion areas	24,200	909,900	1,719,900	0	24,200	0
ROW avoidance areas	127,600	0	0	930,500	1,571,000	20,000
ROW avoidance areas for large transmission lines (greater than 230 kilovolts)	0	0	0	<i>Figure 2-8</i> 68,000	<i>Figure 2-8</i> 68,000	0
ROW exclusion areas for large transmission lines (greater than 230 kilovolts)	0	0	0	881,000	881,000	0
Recommend for withdrawal (federal minerals in PHMA)	0	1,576,900	1,576,900	0	0	0
Coal						
Unsuitable for surface mining and operations	1,670,800	1,571,900	1,571,900	criteria applied to 1,571,900 acres	criteria applied to 1,571,900 acres	criteria applied to 5,000 acres
Fluid Mineral Leasing¹	<i>Figure 2-10</i>	<i>Figure 2-11</i>	<i>Figure 2-12</i>	<i>Figure 2-10</i>	<i>Figure 2-13</i>	<i>Figure 2-13</i>
Closed to fluid mineral leasing	100,200	1,347,400	2,473,000	100,200	224,200	0
Open to leasing subject to No Surface Occupancy (NSO)—BLM surface/federal minerals	<i>Figure 2-14</i> 350,300	<i>Figure 2-14</i> 350,300	<i>Figure 2-14</i> 350,300	<i>Figure 2-15</i> 1,347,400	<i>Figure 2-16</i> 1,185,400	<i>Figure 2-16</i> 5,000
Locatable Minerals, Mineral Materials, and Nonenergy Solid Leasable Minerals						
Closed to mineral materials sales	<i>Figure 2-17</i> 104,200	<i>Figure 2-18</i> 926,800	<i>Figure 2-18</i> 926,800	<i>Figure 2-17</i> 200	<i>Figure 2-18</i> 1,571,900	<i>Figure 2-18</i> 5,000
Closed to nonenergy mineral leasing	<i>Figure 2-19</i> 11,200	<i>Figure 2-20</i> 926,800	<i>Figure 2-20</i> 926,800	<i>Figure 2-19</i> 11,200	<i>Figure 2-20</i> 1,571,900	<i>Figure 2-20</i> 5,000
Special Designations						
Areas of Critical Environmental Concern	<i>Figure 2-21</i>	<i>Figure 2-21</i>	<i>Figure 2-22</i>	<i>Figure 2-21</i>	<i>Figure 2-21</i>	<i>Figure 2-21</i>
16 Existing BLM ACECs	33,200	33,200	33,200	33,200	33,200	33,200
GRSG Habitat ACEC/Zoological Area (all PHMA)	0	0	912,700	0	0	0

Source: BLM 2013a

¹ Decisions for leasable fluid minerals also apply to oil shale and uranium.

2.10 DETAILED DESCRIPTION OF ALTERNATIVES

2.10.1 How to Read Table 2-7 and 2-8

Table 2.7 and **Table 2.8** depict the range of alternatives. The following describes how **Table 2.7** and **Table 2.8** are written and formatted to show the LUP decisions proposed for each alternative.

In accordance with Appendix C of the BLM's *Land Use Planning Handbook* (H-1601-1), LUP and LUPA decisions are broad-scale decisions that guide future land management actions and subsequent site-specific implementation decisions (BLM 2005). LUP decisions fall into two categories, which establish the base structure for desired outcomes (goals and objectives), and allowable uses and actions to achieve outcomes.

- Goals are broad statements of desired outcomes that usually are not quantifiable.
- Objectives identify specific desired outcomes for resources. They may be quantifiable and measurable and may have established timeframes for achievement, as appropriate.
- Allowable uses identify uses, or allocations, that are allowable, restricted, or prohibited on BLM-administered lands and mineral estate.
- Actions identify measures or criteria to achieve desired objectives, including actions to maintain, restore, or improve land health.

Stipulations (NSO and CSU, which fall under the allowable uses category) are also applied to surface-disturbing activities to achieve desired outcomes (i.e., objectives).

In general, only those resources and resource uses that have been identified as planning issues have notable differences between the alternatives.

Actions that are applicable to all alternatives are shown in one cell across a row. These particular objectives and actions would be implemented regardless of which alternative is ultimately selected.

Actions that are applicable to more than one but not all alternatives are indicated by either combining cells for the same alternatives, or by denoting those objectives or actions as the "same as Alternative A," for example.

In some cells, "No Similar Action" is used to indicate that there is no similar goal, objective or action to the other alternatives, or that the similar goal, objective or action is reflected in another management action in the alternative.

Table 2.7
Description of Alternative A

(PHMA) = Priority Habitat Management Areas, (GHMA) = General Habitat Management Areas, (LCHMA) = Linkage/Connectivity Habitat Management Areas, (ADH) = All Designated Habitat

NTT No.	Program Area	Alternative A (No Action / Current Management)
		Objective: No similar objective.
Travel and Transportation		Objective: No similar objective.
I	Travel	<p>Colorado River Valley RMP: Designate OHV area travel as follows:</p> <ul style="list-style-type: none"> • Open: 294,300 acres • Limited to existing routes: 38,000 acres • Limited to existing routes May 1 to November 30: 4,300 acres • Limited to designated routes: 123,000 acres • Closed: 44,000 acres <p>Grand Junction RMP: Assign off-road vehicle designations to all public land as follows:</p> <ul style="list-style-type: none"> • Open (Intensive): 12,500 acres • Open to cross-country travel: 445,400 acres • Closed: 35,300 acres • Limited to designated roads: 225,500 acres (includes 5,500 acres with seasonal limitations) • Limited to existing roads and trails: 342,700 acres (includes 108,000 acres with seasonal limitations) <p>Kremmling RMP: Designate OHV-area travel as follows:</p> <ul style="list-style-type: none"> • Open: 307,300 acres • Limited to Existing Routes: 7,300 acres • Limited to Designated Routes: 54,500 acres • Closed: 8,700 acres <p>Little Snake RMP: Travel Management Areas have been designated as open, limited, or closed to vehicle use.</p> <ul style="list-style-type: none"> • Open: 19,710 acres • Limited to Existing Routes: 992,780 acres • Limited to Designated Routes: 199,790 acres • Closed: 124,620 acres

Table 2.7
Description of Alternative A

(PHMA) = Priority Habitat Management Areas, (GHMA) = General Habitat Management Areas, (LCHMA) = Linkage/Connectivity Habitat Management Areas, (ADH) = All Designated Habitat

NTT No.	Program Area	Alternative A (No Action / Current Management)
		<p>Roan Plateau RMP: The Roan Plateau Area TMA delineation allows <i>muscle-powered</i> (i.e., foot, ski, horse, stock) travel cross-country year-round. Mechanized (i.e., wheeled conveyance) travel in the Roan Plateau Area TMA is limited to designated routes year-round as signed or identified on maps.</p> <p>White River RMP: No areas will be designated as open to OHV use at this time. Winter snowmobile use will remain open, except within the Moosehead road closure area, Oak Ridge State Wildlife Area, and the six WSAs.</p> <p>Until a Travel Management Plan is completed, motorized vehicles will be limited to existing roads, ways, and trails on most of the public lands in the Resource Area from October 1 to April 30 each year (see Map 2-22 [of the White River RMP]).</p> <p>Motorized vehicle travel will be limited to existing roads, ways, and trails all year in identified fragile soil areas, the black footed ferret reintroduction areas, the Texas-Missouri-Evacuation Creek cultural resource area, and in areas with potential habitat for threatened and endangered or sensitive plant species.</p> <p>Motorized vehicle use will be limited to designated roads and, trails in: ACECs, in order to protect sensitive resources (see Maps 2-23A through 2-23F [of the White River RMP]); the Indian Valley/Deep Channel area, to comply with a court ruling (see Map 2-24 [of the White River RMP]); and the Canyon Pintado National Historic District, in order to protect fragile cultural resources (see Map 2-25 [of the White River RMP]).</p> <p>The Cow Creek/Timber Gulch/Hay Gulch areas (7,390 acres) will be closed to motorized vehicle use from August 15 through November 30 each year in order to establish nonmotorized quality hunting areas.</p> <p>All six WSAs are designated as closed until time that congress either designates them as wilderness or releases them for multiple uses. (p2-44).</p> <p>Routt National Forest: (ADH) The 2007 Motor Vehicle Use Map limits motorized travel to designated roads and motorized trails. Additional Forest Plan Standards include:</p>

Table 2.7
Description of Alternative A

(PHMA) = Priority Habitat Management Areas, (GHMA) = General Habitat Management Areas, (LCHMA) = Linkage/Connectivity Habitat Management Areas, (ADH) = All Designated Habitat

NTT No.	Program Area	Alternative A (No Action / Current Management)
		<ul style="list-style-type: none"> • Limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate (Forestwide Soils Standard, p. 1-6). • Prohibit motorized use with wheeled vehicles on lands outside designated travel ways unless a forest order indicates that such use is specifically allowed (Forestwide Infrastructure – Travelways Standard 4). <p>Prohibit motorized access from private land where access for the general public is not available, except by special permit (Forestwide Infrastructure – Travelways Standard 6, p. 1-23).</p>
2	Travel	<p>Colorado River Valley RMP: Allowable Use: STIPULATION GS-TL-3: <i>GRSG Winter and Nesting Habitat</i>. Prohibit surface occupancy and surface-disturbing activities during certain timeframes in GRSG crucial winter habitat and nesting habitat (includes GRSG). GRSG nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centimeters (approximately 12 and 40 inches) in height and a mean canopy cover between 15 and 40 percent within a 2-mile radius of an active lek. Winter habitat: December 16 to March 15. Nesting habitat: March 1 to June 30.</p> <p>Grand Junction RMP: Manage 35,300 acres as <i>closed</i> to OHV use:</p> <ul style="list-style-type: none"> • Palisade municipal watershed • Whitewater Hill Sensitive Plant Study Site • Pyramid Rock ACEC <p>Kremmling RMP: Designate OHV-area travel as follows:</p> <ul style="list-style-type: none"> • Open: 307,300 acres • Limited to Existing Routes: 7,300 acres • Limited to Designated Routes: 54,500 acres • Closed: 8,700 acres.

Table 2.7
Description of Alternative A

(PHMA) = Priority Habitat Management Areas, (GHMA) = General Habitat Management Areas, (LCHMA) = Linkage/Connectivity Habitat Management Areas, (ADH) = All Designated Habitat

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		<p>Implement the following seasonal travel closures:</p> <p>Prohibit motorized travel from April 1 to June 1:</p> <ul style="list-style-type: none"> • Grouse Mountain Road No. 2758. <p>Prohibit motorized travel from April 15 to June 1:</p> <ul style="list-style-type: none"> • Dice Hill Road No. 2750; • Black Mountain Access Road No. 2757; • Smith Mesa Road No. 2759; • Kinney Creek Road No. 2755; • Strawberry Road No. 2751; • Hurd Peak Road No. 2765; • Buffalo Peak Access Road No. 2507 and No. 2508; • Independence Mountain Access Roads No. 2503 and No. 2504; • Bull Mountain Road No. 2505; and • Owl Mountain Road No. 2502 and No. 2506. <p>Prohibit motorized travel from Labor Day to June 1:</p> <ul style="list-style-type: none"> • Smith Mesa Lower Mainline Road No. 2762; • McQueary Creek Road No. 2756; and, • Kinney Creek Spur Roads. <p>Prohibit motorized travel from June 1 to August 1:</p> <ul style="list-style-type: none"> • Hebron Slough: Closed to all motorized vehicles (in order to protect nesting waterfowl). <p>Prohibit motorized travel from June 1 to Labor Day:</p> <ul style="list-style-type: none"> • Radium Hot Springs Access Road.

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		<p>Prohibit motorized travel from August 1 to July 1:</p> <ul style="list-style-type: none"> • Hebron Slough: motorized vehicles Limited to Designated Roads and Trails. (Exception: Snowmobiles operating on snow.) <p>Prohibit motorized travel from October 1 to June 1:</p> <ul style="list-style-type: none"> • Three Mile Creek Road No. 2510 (Exception: Snowmobiles operating on snow). <p>Prohibit motorized travel from December 1 to April 1:</p> <ul style="list-style-type: none"> • Inspiration Point Flats Road and Jeep Trail; and • Pumphouse Recreation Site Access Road. <p>Prohibit motorized travel year-long:</p> <ul style="list-style-type: none"> • Sheriff Creek Road No. 2764; • Parson's Draw Road No. 2513; • Mitchell Placer Road No. 2511; and • Owl Mountain Spur Roads. <p>Other:</p> <ul style="list-style-type: none"> • Spruce Creek Road No. 2767 – Prohibit motorized travel from Labor Day to June 1. • Spruce Creek Spur Roads No. 2770 and 2771 – Prohibit motorized travel from Labor Day to June 1. • Wolford Mountain Single Track – Prohibit motorized travel from September 15 to June 1 • Wolford Mountain Travel Management Area – Prohibit motorized travel from December 16 to April 14. <p>Little Snake RMP: To prevent disturbing up to 75 percent of nesting birds, between March 1 and June 30, GRSG nesting and early brood-rearing habitat (Map 5 [of the Little Snake RMP]) will be stipulated as CSU for oil and gas operations and avoidance areas for other surface-disturbing activities within a 4-mile radius of the perimeter of a lek. All surface-disturbing activities will avoid only nesting and early brood-rearing habitat within the 4-mile radius of the lek during this time period.</p>

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		<p>Roan Plateau RMP: Prevent the need for listing of proposed, candidate, and sensitive species under the ESA and improve the condition of special status species and its habitats to a point where their special status recognition is no longer warranted. Promote recovery of special status species plants that may become listed.</p> <p>White River RMP: Vehicular access by the public on important wildlife habitats and/or during sensitive functional use periods (e.g., big game severe winter range, critical summer use areas, raptor nesting areas, and GRSG reproductive habitats) would be subject to restrictions as directed by the Area Manager. Use of restricted road segments by authorized personnel (e.g., BLM personnel, law enforcement, and permitted land users) may be allowed for administrative and operational purposes. Methods used to restrict vehicular access may include: installing lockable gates, barricades or other forms of deterrents, signing, or reclaiming and abandoning roads or trails no longer necessary for management, or other methods prescribed by the Area Manager. (COA pB-16).</p> <p>Routt National Forest: (ADH) Manage motorized use by seasonal use restriction if 'use causes unacceptable wildlife conflict or habitat degradation' (Forestwide Infrastructure – Travelways Guideline 3b, p. 1-23).</p> <p>California Park Road, National Forest Service Road 150, is seasonally closed for wildlife May 1 to July 1, and areas of designated elk winter range, including those that have PHMA or GHMA, are seasonally closed to motor vehicles from December 15 to April 15.</p>
3	Travel	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP: Travel Management route designation is being completed as a part of the RMP revision.</p> <p>Little Snake RMP: Colorado State BLM policy requires that all areas in limited Travel Management areas have completed Transportation Plans within 5 years of the completion of the ROD.</p> <p>Roan Plateau RMP: Generate and maintain a travel management plan to minimize disturbance and redundant routes.</p> <p>White River RMP: A comprehensive Travel Management Plan will be initiated upon approval.</p>

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4	Travel	<p>Routt National Forest: Activity level plans are already completed in ADH.</p> <p>Colorado River Valley RMP: Grant administrative use authorizations on a case-by-case basis with approval from the BLM Authorized Officer. For all authorizations that allow off-route motorized/mechanized travel, specify the following: what type of use is allowed and for what purpose, times, dates or seasons of access; and where motorized/mechanized vehicle travel off designated routes is allowed.</p> <p>Administrative routes are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the BLM or a permitted user must have access for regular maintenance or operation.</p> <p>Grand Junction RMP: No similar action.</p> <p>Kremmling RMP: Prohibit motorized/mechanized travel off designated routes in Limited and Closed areas, with the following exceptions and supplementary stipulations:</p> <ul style="list-style-type: none"> • BLM authorization for administrative use (such as accessing private land; accessing minerals/energy sites; administering grazing allotments; or conducting maintenance or installation of range improvements, habitat treatments, trail construction, communication sites, and reservoirs). • BLM authorization to exercise valid existing rights. <p>Little Snake RMP: Areas have been designated as open, limited, or closed to vehicle use.</p> <p>Roan Plateau RMP: Additional routes authorized as part of permitted activities would generally be for administrative access only in order to reduce impacts to wildlife and habitat fragmentation, but may be open to limited use by recreationists, or for other resource management purposes.</p> <p>White River RMP: No similar action.</p> <p>Routt National Forest: No similar action.</p>

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5	Travel	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: No similar action.</p> <p>Routt National Forest: Allow motorized use on new or designated travel ways unless a documented decision shows that:</p> <ol style="list-style-type: none"> a) Motorized use conflicts with the purpose for which the travel ways were constructed; b) Motorized use is incompatible with the ROS class; c) Travel ways are located in areas closed to motorized use and are not designated routes; d) Motorized use creates user conflicts that result in unsafe conditions unrelated to weather; e) Physical characteristics of travel ways preclude any form of motorized use; f) Travel ways do not serve an existing or identified future public need; g) Financing is not available for maintenance necessary to protect resources (Forestwide Infrastructure – Travelways Standard 2, p. 1-23). <p>Consider developing new trail systems that expand the range of recreation opportunities, provide for user safety, and disperse existing use into different areas (Infrastructure Guideline, p. 1-23). Obliterate, revegetate, and slope to drain those system travel ways which are no longer needed to achieve management objectives or where resource damage cannot be mitigated (Forestwide Infrastructure – Travelways Guideline 1, p.1-23).</p>
6	Travel	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: Develop an access/transportation plan that:</p> <ul style="list-style-type: none"> • Enables access where needed • Limits points of access to reduce the number of redundant roads and trails • Reroutes, rehabilitates, or eliminates existing roads and trails that are causing damage to cultural or natural resources • Reroutes roads and trails that are landlocked by private parcels • Restricts access to meet resource objectives (e.g., seasonal road closures and gating)

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		<ul style="list-style-type: none"> • Concentrates stream and riparian crossings • Reduces habitat fragmentation • Considers new construction and reconstruction of roads and trails. <p>Actively pursue access to specific parcels to improve access to public lands for land management purposes.</p> <p>White River RMP: As proposals for construction of new roads or trails are received, NEPA documentation will analyze impacts and determine appropriate designations and the potential for replacement of other existing roads. Criteria will be developed as part of the travel management planning process to aid in the determination for changing a particular area's road and trail designations, or adding/ closing roads and trails.</p> <p>Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity and the overall transportation plan, economic analysis, safety requirements, resource objectives, and minimizing damage to the environment.</p> <p>Routt National Forest: (ADH) The 2007 Motor Vehicle Use Map limits motorized travel to designated roads and motorized trails. Additional Forest Plan Standards include: Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals; Prohibiting such development is not an alternative (Forestwide Mineral and Energy – Reserved and Outstanding Rights Standard I, p. I-6).</p> <p>Do not retain facilities acquired from land donation, exchange, or purchase unless they serve a definite future purpose and funding is available for their maintenance (Forestwide Infrastructure – Facilities Standard I, p. I-22).</p> <p>Prohibit motorized use with wheeled vehicles on lands outside designated travel ways unless a forest order indicates that such use is specifically allowed (Forestwide Infrastructure – Travelways Standard 4, p. I-23). Prohibit motorized access from private land where access for the general public is not available, except by special permit (Forestwide Infrastructure – Travelways Standard 4, p. I-23).</p>

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		<p>Manage motorized use by seasonal use restriction if: b. Use causes unacceptable wildlife conflict or habitat degradation (Forestwide Infrastructure – Travelways Guideline 3b, p.1-23).</p> <p>Retain existing access rights, where needed, to meet Forest Plan goals and objectives (Forestwide Real Estate-Rights-of-way Standard 1, p.1-25).</p>
7	Travel	<p>Colorado River Valley RMP, Grand Junction RMP, Roan Plateau: No similar action.</p> <p>Kremmling RMP: Re-seed or plant disturbed areas with desirable vegetation when the native plant community cannot recover and occupy the site sufficiently.</p> <p>Little Snake RMP: Use early and effective reclamation techniques to allow GRSG habitat to be reestablished.</p> <p>White River RMP: Adapted forms of succulent forbs should be included in seed mixes applied to surface disturbances on GRSG brood ranges. Seed mixes will be subject to reseeding conditions established for each GRA and identified in Appendix B (of the White River RMP).</p> <p>Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort will not exceed 20 percent of converted acreage at mature canopy densities of ≤ 15 percent.</p> <p>Routt National Forest: (ADH) Reclaim roads and other disturbed sites when use ends, as needed, to prevent resource damage (Forestwide Soils Standard 4, p.1-6).</p> <p>Obliterate, revegetate, and slope to drain those system travel ways which are no longer needed to achieve management objectives or where resource damage cannot be mitigated (Infrastructure Guideline, p.1-23).</p> <p>Vegetative restoration projects may be needed where human activities have altered natural ecosystems, and there is no reasonable expectation of natural revegetation; Use native species in restoration efforts; Where nonnative species must be used, select plants based on the likelihood that they will not persist beyond the rehabilitation period</p>

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		<p>(Forestwide Wilderness Guideline 6, p.1-22).</p> <p>(ADH) Use genetically local (at the subsection level), native plant species for revegetation efforts where technically and economically feasible; Use weed-free seed mixtures; While native perennials are becoming established, nonnative annuals or sterile perennial species may be used to prevent soil erosion (Forestwide Biological Diversity Standard 3, p.1-8).</p>
8	Travel	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: Use early and effective reclamation techniques to allow GRSG habitat to be reestablished.</p> <p>White River RMP: Adapted forms of succulent forbs should be included in seed mixes applied to surface disturbances on GRSG brood ranges. Seed mixes will be subject to reseeding conditions established for each GRA and identified in Appendix B (of the White River RMP).</p> <p>Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort will not exceed 20 percent of converted acreage at mature canopy densities of ≤ 15 percent.</p> <p>Routt National Forest: (ADH) Use genetically local (at the subsection level), native plant species for revegetation efforts where technically and economically feasible; Use weed-free seed mixtures; While native perennials are becoming established, nonnative annuals or sterile perennial species may be used to prevent soil erosion (Forestwide Biological Diversity Standard 3, p.1-8).</p>
Recreation		Objective: No similar objective.
9	Recreation	<p>Colorado River Valley RMP, Grand Junction RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Kremmling RMP: Issue SRPs as a discretionary action.</p>

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		<p>Little Snake RMP: (1) SRPs will be considered on a case-by-case basis; (2) Commercial outfitter camps will be considered on a case-by-case basis; (3) Commercial use permits that provide... and protect resources will be authorized.</p> <p>White River RMP: SRPs will be issued to qualified commercial guides and outfitters based on need and demand for services. Use limits or allocations will be made based on services provided, prior use history, responsiveness, and proven responsibility of applicants. Allocations may also be used to resolve conflicts, protect resources, or reduce impacts to resources, clients and other public land users.</p>
Lands and Realty Management		Objective: No similar objective.
10	Lands/ Realty	<p>Colorado River Valley RMP: Allowable Use: STIPULATION GS-NSO-12: <i>Threatened or Endangered Species</i>. Prohibit surface occupancy and surface-disturbing activities on habitat areas for those species listed by the federal or state government as endangered or threatened and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species.</p> <p>Grand Junction RMP: Designate approximately 234,900 acres as unsuitable for public utilities. Deny proposals in these zones on the basis that utility project impacts could not be mitigated to prevent undue damage to the resources of concern.</p> <p>Areas of Resource Concern designated as unsuitable include:</p> <p><u>ACECs:</u> A portion of Badger Wash (685 acres); A portion of The Palisade (1,920 acres); A portion of Pyramid Rock (470 acres); A portion of Rough Canyon (2,560 acres); and Unawep Seep (80 acres).</p> <p><u>Soils:</u> Douglas/Baxter Soil Slumps and Plateau Creek Slump.</p>

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		<p><u>Water Resources Management:</u> Badger Wash Study Area (685 acres); Grand Junction municipal watershed; and Indian Wash Dam.</p> <p><u>Wildlife:</u> Rough Canyon</p> <p><u>Threatened and Endangered Species:</u> Bald eagle concentrations areas; Pyramid Rock; and UnawEEP Seep.</p> <p><u>Visual Resource Management (VRM):</u> Juanita Arch; The Goblins; Dolores River Canyon; Gunnison River Corridor; Mt. Garfield Cliffs; Bangs Canyon Area; Sinbad Valley; Granite Creek; UnawEEP Canyon Area; Hunter/Garvey Canyons Areas; and Vega Reservoir Viewshed.</p> <p><u>Cultural Resource Management:</u> Indian Creek; Rough Canyon (1,000 acres); Site 5MEI 358; and Ladder Springs.</p> <p><u>Recreation Resource Management:</u> A portion of Rough Canyon ACEC (2,560 acres); and The Palisade ONA.</p> <p><u>Developed Recreation Sites:</u> Island Acres; Vega Reservoir; and Highline Reservoir.</p> <p><u>Wilderness Management:</u> Sewemup Mesa WSA</p> <p>Encourage use of existing corridors or upgrading of existing facilities in sensitive and suitable zones</p> <p>Kremmling RMP: No similar action.</p>

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		<p>Little Snake RMP: ROW exclusion areas are limited to existing WSAs, Limestone Ridge area, Irish Canyon ACEC, and parts of Vermillion Basin area.</p> <p>Identify and establish major utility and transportation corridors within the planning area. “Designated” corridors limited to Section 368 corridors from 2009 Westwide Energy Corridor EIS.</p> <p>Roan Plateau RMP: STIPULATION GS-NSO-ROAN-24, <i>Threatened, Endangered, or Candidate Species Habitat</i> – In order to protect occupied habitat and immediately adjacent potential habitat crucial for the maintenance or recovery of species listed under the ESA or by the State of Colorado as threatened or endangered (including proposed or candidate species under the ESA), no ground-disturbing activities will be authorized within occupied habitat or immediately adjacent potential habitat necessary for maintenance or recovery of the species.</p> <p>Allow utility corridors within 50 feet of BLM designated and administrative travel routes except where such placement would negatively impact other important resource values. In such areas, utilities would be placed within the existing roadway or realigned to avoid important resource values.</p> <p>STIPULATION GS-CSU-ROAN-13: <i>Parachute Creek High Value Watershed</i> – Total unreclaimed surface will be limited to 350 acres (1 percent of planning area).</p> <p>Limit surface disturbance to the minimum area necessary by avoiding development of roads, pipelines, and well pads on steep slopes; minimize the potential for surface disturbance through careful planning; grouping facilities to the extent possible; and sharing ROWs such as burying pipelines along roadways.</p> <p>White River RMP: Land use authorizations will be denied in exclusion areas, with the exception of short-term land use permits involving no development, and projects that are consistent with management objectives for the area.</p> <p>Routt National Forest: Retain existing access rights, where needed, to meet Forest Plan goals and objectives (Forestwide Real Estate and Rights-of-Way Standard I, p.1-25).</p>

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		<p>Conserve existing and designated inventoried ROWs needed for implementation of the Forest Plan (Forestwide Utility Corridors Standard 1, p.1-25).</p> <p>Authorize proposals to utilize designated utility corridors without alternative route analysis, subject to site-specific environmental analysis (Forestwide Utility Corridors Standard 2, p.1-25)</p> <p>Do not authorize conflicting uses or activities within transportation and utility corridors (Forestwide Utility Corridors Standard 3, p.1-25).</p> <p>Bury electrical utility lines of 33 kilovolts or less, and telephone lines, unless...(Forestwide Utility Corridors Standard 4, p.1-25).</p> <p>Consolidate occupancy of transportation or utility corridors and sites wherever possible and compatible (Forestwide Utility Corridors Guideline 1, p.1-26).</p> <p>Utilize current utility corridors fully. Provide corridors in the future in areas that meet the needs of society while protecting the integrity of the environment (Forestwide Utility Corridors Guideline 4, p.1-26).</p> <p>ROWs: Consolidate occupancy of transportation or utility corridors and sites wherever possible and compatible (Utility Corridors Guideline, p. 1-26).</p> <p>Utilize current utility corridors fully; Provide corridors in the future in areas which meet the needs of society while protecting the integrity of the environment (Utility Corridors Guideline, p. 1-26).</p>
		<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP: No similar action.</p> <p>White River RMP: New construction or modification of above ground electric transmission facilities will be required to incorporate the most current raptor protection guidelines. Where appropriate, conductor separation methods will be employed rather than features that discourage perching.</p>

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		<p>Routt National Forest: Conserve existing and designated inventoried ROWs needed for implementation of the Forest Plan (Forestwide Utility Corridors Standard 1, page 1-25). Authorize proposals to utilize designated utility corridors without alternative route analysis, subject to site-specific environmental analysis (Forestwide Utility Corridors Standard 2, page 1-25)</p> <p>Do not authorize conflicting uses or activities within transportation and utility corridors (Forestwide Utility Corridors Standard 3, page 1-25).</p> <p>Bury electrical utility lines of 33 kilovolts or less, and telephone lines, unless...(Forestwide Utility Corridors Standard 4, page 1-25).</p>
		<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: Use early and effective reclamation techniques to allow GRSG habitat to be reestablished.</p> <p>White River RMP: All disturbed sites shall be promptly reclaimed to the satisfaction of the Area Manager.</p> <p>Reclamation should be implemented concurrent with construction and site operations to the fullest extent possible. Final reclamation actions shall be initiated within 6 months of the termination of operations unless otherwise approved in writing by the Authorized Officer.</p> <p>The goal for rehabilitation of any disturbed area shall be the permanent restoration of original site conditions and productive capability.</p> <p>Routt National Forest: Do not retain facilities acquired from land donation, exchange, or purchase unless they serve a definite future purpose and funding is available for their maintenance (Forestwide Infrastructure – Facilities Standard 1, p.1-22).</p>
II	Lands/ Realty	Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau: No similar action.

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		<p>White River RMP: New construction or modification of above ground electric transmission facilities will be required to incorporate the most current raptor protection guidelines. Where appropriate, conductor separation methods will be employed rather than features that discourage perching.</p> <p>Routt National Forest: Conserve existing and designated inventoried ROWs needed for implementation of the Forest Plan (Forestwide Utility Corridors Standard 1, page 1-25).</p> <p>Authorize proposals to utilize designated utility corridors without alternative route analysis, subject to site-specific environmental analysis (Forestwide Utility Corridors Standard 2, page 1-25).</p> <p>Do not authorize conflicting uses or activities within transportation and utility corridors (Forestwide Utility Corridors Standard 3, page 1-25).</p> <p>Bury electrical utility lines of 33 kilovolts or less, and telephone lines, unless...(Forestwide Utility Corridors Standard 4, page 1-25).</p>
12	Lands/ Realty	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: Use early and effective reclamation techniques to allow GRSG habitat to be reestablished.</p> <p>White River RMP: All disturbed sites shall be promptly reclaimed to the satisfaction of the Area Manager.</p> <p>Reclamation should be implemented concurrent with construction and site operations to the fullest extent possible. Final reclamation actions shall be initiated within 6 months of the termination of operations unless otherwise approved in writing by the Authorized Officer.</p> <p>The goal for rehabilitation of any disturbed area shall be the permanent restoration of original site conditions and productive capability.</p>

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		Routt National Forest: Do not retain facilities acquired from land donation, exchange, or purchase unless they serve a definite future purpose and funding is available for their maintenance (Forestwide Infrastructure – Facilities Standard I, p.1-22).
13	Lands/ Realty	<p>Colorado River Valley RMP: Allowable Use STIPULATION GS-NSO-12: <i>Threatened or Endangered Species</i>. Prohibit surface occupancy and surface-disturbing activities on habitat areas for those species listed by the federal or state government as endangered or threatened and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species.</p> <p>Grand Junction RMP: Designate 441,400 acres as sensitive to public utility development. Design utility routes and projects in these zones to protect resources of concern from undue degradation (note: corresponding stipulations [i.e., NSO, CSU, TL] are found in Appendix B [of the Grand Junction RMP]):</p> <p><u>ACECs:</u> A portion of Badger Wash (1,230 acres); and a portion of The Palisade (17,258 acres).</p> <p><u>Soils:</u> Steep slopes</p> <p><u>Water Resources Management:</u> Palisade municipal watershed; Jerry Creek Reservoirs; and Perennial streams.</p> <p><u>Wildlife:</u> Deer and elk winter range; Bighorn sheep winter range; and Elk calving areas.</p> <p><u>Threatened and Endangered Species:</u> Badger Wash uplands; Colorado cutthroat trout; <i>Cryptantha eleta</i> site; Peregrine falcon habitat; Sensitive plant species; and Colorado hookless cactus (formerly known as Uinta Basin hookless cactus).</p>

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		<p><u>Little Book Cliffs Wild Horse Range (LBCWHR):</u> Horse Range; LBCWHR winter range; and LBCWHR foaling area.</p> <p><u>VRM:</u> Bang's Canyon area (25,920 acres); Face of the Book Cliffs; Grand Mesa slopes; Granite Creek (12,760 acres); Gunnison River Corridor (9,040 acres); Highway corridors; Hunter/Garvey Canyons area (11,400 acres); South Shale Ridge; Sinbad Valley (7,490 acres); and Unaweep Canyon area (6,400 acres).</p> <p><u>Cultural Resource Management:</u> Transect 7</p> <p><u>Recreation Resource Management:</u> Little Park Road; Pine Mountain roadside; and the Palisade ONA.</p> <p>Kremmling RMP: No similar action.</p> <p>Little Snake RMP: NSO applied to 0.6-mile radius of a lek. Exceptions established in Appendix B (of the Little Snake RMP). To prevent disturbing up to 75 percent of nesting birds, between March 1 and June 30, GRS nesting and early brood-rearing habitat (Map 5 [of the Little Snake RMP]) will be stipulated as CSU for oil and gas operations and avoidance areas for other surface-disturbing activities within a 4-mile radius of the perimeter of a lek. All surface-disturbing activities will avoid only nesting and early brood-rearing habitat within the 4-mile radius of the lek during this time period.</p> <p>Roan Plateau RMP: No similar action.</p> <p>White River RMP: Development will be allowed in avoidance areas under these same conditions [subject to the use of COAs (see Appendix B [of the White River RMP]), all applicable surface use stipulations listed in Appendix A [of the White River RMP], and any site-specific stipulations identified through the NEPA process] where no feasible alternative can be identified.</p>

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		<p>GRSG leks would be classified as avoidance areas for the permitting of land use authorizations.</p> <p>Routt National Forest: There is no direction in the Forest Plan related to this item.</p>
14	Lands/ Realty	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP: No similar action.</p> <p>White River RMP: New construction or modification of above ground electric transmission facilities will be required to incorporate the most current raptor protection guidelines. Where appropriate, conductor separation methods will be employed rather than features that discourage perching.</p> <p>Routt National Forest: Conserve existing and designated inventoried ROWs needed for implementation of the Forest Plan (Forestwide Utility Corridors Standard 1, page 1-25).</p> <p>Authorize proposals to utilize designated utility corridors without alternative route analysis, subject to site-specific environmental analysis (Forestwide Utility Corridors Standard 2, page 1-25).</p> <p>Do not authorize conflicting uses or activities within transportation and utility corridors (Forestwide Utility Corridors Standard 3, page 1-25).</p> <p>Bury electrical utility lines of 33 kilovolts or less, and telephone lines, unless...(Forestwide Utility Corridors Standard 4, page 1-25).</p>
15	Lands/ Realty	<p>Colorado River Valley RMP: No similar action.</p> <p>Grand Junction RMP: Consider land exchanges in retention areas on a case-by-case basis in order to meet resource objectives if the exchange is in the public interest and would: 1) improve management efficiency; or 2) result in the acquisition of private property with high resource values.</p> <p>Kremmling RMP: Standard stipulation #1, Appendix E-13 (of the Kremmling RMP).</p> <p>Little Snake RMP: Additional retention areas can be identified during the life of the RMP for the public good.</p>

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		<p>Disposal allowed on lands within any zone suitable for public purposes and of special importance to local communities, State and/or federal agencies.</p> <p>Roan Plateau RMP: Retain lands atop the plateau.</p> <p>White River RMP: Category III lands [are] not suitable for disposal of any kind. Category III lands include WSAs and ACECs.</p> <p>Approximately 11,325 acres of public land meet the category I sale criteria under Section 203 of FLPMA. Category I lands are suitable for disposal by any means, including, but not limited to, sale, exchange, or jurisdictional transfer. These lands are listed by legal description in Table 2-15A through 2-15D, Appendix D (of the White River RMP).</p> <p>Approximately 1,282,195 acres of public lands not specifically identified for disposal or retention are designated Category II lands.</p> <p>Category I lands. Proposals for the disposal of Category I lands will be considered on a case by case basis. While these parcels may be sold, exchange will be the preferred method of disposal in most cases. Concerns of adjacent owners, current users, and local governments will be considered prior to disposal. An environmental assessment or other appropriate NEPA documentation will be prepared for all such proposals.</p> <p>Routt National Forest: In land adjustment activities, give priority to acquiring lands that contain habitat identified by USFWS as necessary for recovery of federally listed threatened and endangered species (Real Estate-Land Adjustments Standard, p. 1-24). In land adjustment activities including land exchange, purchase, disposal, and donation, consider the following:</p> <ol style="list-style-type: none"> a) Evaluate and balance the overall combination of all resource values and factors including wildlife habitat, fisheries habitat, riparian areas, wetlands, cultural resources, recreation opportunities, scenic value, watershed protection, timber resources, rangelands, public access, better federal land management, and other factors. In all land adjustment activities, consider the important impacts to issues and resources identified during site-specific scoping. b) Consider the effect of land adjustments on sensitive species habitat. Avoid land adjustments which could

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		<p>result in a trend toward federal listing or loss of population viability for any sensitive species. Ownership of sensitive species habitat can be conveyed if conveyance would not result in a trend toward federal listing or adversely impact the population viability of the species or if effects could be mitigated.</p> <p>c) Acquire lands that contain resource values identified during scoping as important in contributing toward national forest system resource management goals and objectives as stated in the Forest Plan. Examples include: wetlands, riparian areas, essential wildlife habitat, threatened or endangered species habitat, sensitive species habitat, significant cultural resources, timber lands, rangelands, or other areas (Real Estate-Land Adjustments Standard, p. I-24).</p>
16	Lands/ Realty	<p>Colorado River Valley RMP: No similar action.</p> <p>Grand Junction RMP: Consider acquisition of lands that meet the following criteria:</p> <ul style="list-style-type: none"> • Private land within areas recommended as suitable for designation as wilderness; • Private land needed for management of Wild and Scenic Rivers; • Potential national or historic trails; • Potential natural or RNAs; • Potential areas for cultural or natural history designation; • Potential ACECs; • Private land within designated wild horse preserves; • Private land with potential for other congressional designations; • Threatened or endangered species habitat areas; • Riparian habitat areas; • Valuable recreation areas; • Wetland areas as defined in Executive Order 11990, dated May 24, 1977; and • Floodplain areas (100-year) as defined in Executive Order 11988, dated May 24, 1977. <p>Kremmling RMP: Apply the following criteria when considering land tenure adjustments:</p> <ul style="list-style-type: none"> • Retain all public lands or interests in land (such as easements) that enhance multiple-use and sustained-yield management; and

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		<ul style="list-style-type: none"> • Acquire lands or interests in land that complement important resource values and further management objectives. <p>Little Snake RMP: Central Zone: Acquisition of lands in the area should be actively sought to protect wildlife habitat, especially GRSG.</p> <p>Central, East and West Zones: Acquisition areas can be identified for the public's interest.</p> <p>Roan Plateau RMP: Retain lands on top of the plateau, and acquire in-holdings atop the plateau.</p> <p>Acquisition of inholdings, and other lands with important resource values, would be encouraged or allowed.</p> <p>White River RMP: Acquisition of non-BLM lands may be pursued through exchange, purchase or donation, where the acquisition will serve to enhance the BLM's objectives and special emphasis programs. For purchase or donation, acquisitions will generally be limited to inholdings within designated areas.</p> <p>Routt National Forest: In land adjustment activities including land exchange, purchase, disposal, and donation, consider the following:</p> <ul style="list-style-type: none"> c) Acquire lands that contain resource values identified during scoping as important in contributing toward national forest system resource management goals and objectives as stated in the Forest Plan. Examples include: wetlands, riparian areas, essential wildlife habitat, threatened or endangered species habitat, sensitive species habitat, significant cultural resources, timber lands, rangelands, or other areas (Real Estate-Land Adjustments Standard, p. 1-24).
17	Lands/ Realty	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: BLM lands not withdrawn or segregated from mineral entry under the General Mining Law of 1872 are open to mining claim location that are unavailable for location.</p>

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		Several withdrawals and reserves exist that limit the availability of lands for entry. Of the approximate 1,648,770 acres that could be available for location, 997,450 acres are currently withdrawn or unavailable to some extent. In the current RMP, the coal withdrawal of 1910 closes 366,570 acres to nonmetalliferous minerals only, as does 5,480 acres of Federal Water Reserves, and the oil shale withdrawal closes 625,400 acres to all mining claim location. If the three WSAs that were recommended to be carried forward are designated as wilderness, the Wilderness Act will withdraw those areas from location. This will add 41,250 acres to the lands that are unavailable for location.
18	Lands/ Realty	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Recommendations will be made for the revocation of all BLM public land withdrawals which are no longer needed.</p> <p>Recommendations will be made to continue (as is or modify) withdrawals which are still needed for the purposes for which the original withdrawal was made.</p>
Range Management		Objective: No similar objective.
19	Range	<p>Colorado River Valley RMP: Make adjustments to grazing management (e.g., AUMs, periods of use, allotments, class of livestock, and distribution) based on monitoring.</p> <p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p>

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		<p>Kremmling RMP: Standard Operating Procedure (Required by Colorado Public Land Health Standard #4).</p> <p>Little Snake RMP: Identify and initiate restoration and rehabilitation of sagebrush habitat while maintaining a mosaic of canopy cover and seral stages.</p> <p>Special status, threatened and endangered species, and other plants and animals officially designated by the BLM and its habitats are maintained and enhanced by sustaining healthy, native plant and animal communities</p> <p>Guidelines for Livestock Grazing Management A-3, #7, "Natural occurrences...should be combined with livestock management practices to move toward the sustainability of biological diversity across the landscape, including the maintenance, restoration, or enhancement of habitat to promote and assist recovery and conservation of threatened, endangered, or other special status species by helping provide natural vegetation patterns, a mosaic of successional stages, and vegetation corridors thus minimizing habitat fragmentation."</p> <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health assessments, and application of the GSFO (CRVFO) Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p> <p>White River RMP: Standard Operating Procedure (Required by Colorado Public Land Health Standard #4).</p> <p>Routt National Forest: Manage forage for livestock and wildlife based on specific habitat area objectives identified during allotment management plan revision (Management Area Prescription for 5.11, 5.12, 5.13, p. 2-40, p. 2-43, 2-45). Design livestock grazing prescriptions to include achievement of wildlife goals for deer and elk winter range (Management Area Prescription 5.41, p. 2-48).</p>
20	Range	<p>Colorado River Valley RMP: Make adjustments to grazing management (e.g., AUMs, periods of use, allotments, class of livestock, and distribution) based on monitoring.</p>

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		<p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Kremmling RMP: No similar action.</p> <p>Little Snake RMP: Sustain the integrity of the sagebrush biome to maintain viable populations of GRSG...consistent with local conservation plans.</p> <p>Identify and initiate restoration and rehabilitation of sagebrush habitat while maintaining a mosaic of canopy cover and seral stages.</p> <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health surveys, and application of the GSFO Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p> <p>White River RMP: Monitor, evaluate, and adjust livestock management practices to meet resource objectives.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment</p>

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		<p>management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9).</p> <p>Table 1-2. Allowable Use Guidelines</p> <table border="1"> <thead> <tr> <th>Type of Management</th> <th colspan="2">Existing Rangeland Condition</th> </tr> <tr> <td></td> <th>Satisfactory*</th> <th>Unsatisfactory*</th> </tr> </thead> <tbody> <tr> <td>Season-long</td> <td>30-40%</td> <td>0-30%</td> </tr> <tr> <td>Deferred rotation</td> <td>40-50%</td> <td>35-45%</td> </tr> <tr> <td>Rest rotation</td> <td>45-55%</td> <td>35-45%</td> </tr> </tbody> </table> <p>Table 1-3. Riparian Vegetation Residue Allowances Season of Use and Existing Rangeland Condition</p> <ul style="list-style-type: none"> • Spring Use Pasture: Satisfactory=4 Inches, Unsatisfactory=6 inches. • Summer and Fall Use Pasture: Satisfactory=6 Inches and Unsatisfactory=6 Inches <p>Manage forage for livestock and wildlife based on specific habitat area objectives identified during allotment management plan revision (Management Area Prescription for 5.11, 5.12, 5.13, p. 2-40, p. 2-43, 2-45). Design livestock grazing prescriptions to include achievement of wildlife goals for deer and elk winter range (Management Area Prescription 5.41, p. 2-48).</p> <p>Ecological Site Descriptions have not been developed for the Routt National Forest and we are not currently using them in NEPA or Allotment Management Plan revisions. The Routt National Forest completes Rangeland Health Assessments based on the R2 Rangeland Analysis and Management Training Guide (US Department of Agriculture, Rocky Mountain Region 1996) in NEPA and Allotment Management Plan revisions.</p>	Type of Management	Existing Rangeland Condition			Satisfactory*	Unsatisfactory*	Season-long	30-40%	0-30%	Deferred rotation	40-50%	35-45%	Rest rotation	45-55%	35-45%
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21	Range	<p>Colorado River Valley RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific</p>															

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		<p>management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Little Snake RMP: Establish desired plant communities, in coordination with stakeholders across the LSFO, in a way that focuses on native communities and intact ecosystems while allowing nonnative species, where appropriate, on a case-by-case basis.</p> <p>White River RMP: Specific desired plant communities goals for rangelands with grassland, saltbush, greasewood, and sagebrush plant communities are as follows:</p> <ol style="list-style-type: none"> 1) Manage present plant composition as desired plant communities on all areas classified as: <ol style="list-style-type: none"> a) the PNC, high seral and healthy mid-seral; b) sagebrush rangelands with a high to mid-seral plant community providing suitable habitat for deer winter range, GRSG, and antelope. 2) Improve the present plant species composition on unhealthy or at risk rangelands to a healthy plant community within 10 years on all areas with a mid-seral and within 20 years on all areas with a low-seral plant community. <p>Routt National Forest: Manage forage for livestock and wildlife based on specific habitat area objectives identified during allotment management plan revision (Management Area Prescription for 5.11, 5.12, 5.13, p. 2-40, p. 2-43, 2-45). Design livestock grazing prescriptions to include achievement of wildlife goals for deer and elk winter range (Management Area Prescription 5.41, p. 2-48).</p>

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		Ecological Site Descriptions have not been developed for the Routt National Forest and we are not currently using them in NEPA or Allotment Management Plan revisions. The Routt National Forest completes Rangeland Health Assessments based on the R2 Rangeland Analysis and Management Training Guide (US Department of Agriculture, Rocky Mountain Region 1996) in NEPA and Allotment Management Plan revisions.
22	Range	<p>Colorado River Valley RMP: Make adjustments to grazing management (e.g., AUMs, periods of use, allotments, class of livestock, and distribution) based on monitoring.</p> <p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Kremmling RMP: Common to all – Interpreting Indicators of Rangeland Health Technical Reference 1734-6.</p> <p>Little Snake RMP: Overall habitat goals for the sagebrush biome and GRSG established.</p> <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health surveys, and application of the GSFO (CRVFO) Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p>

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		<p>White River RMP: Livestock and big game management techniques will be used to retain ~50 percent herbaceous growth by weight through September 15, on GRSG brood and nest habitats.</p> <p>Routt National Forest: Manage forage for livestock and wildlife based on specific habitat area objectives identified during allotment management plan revision (Management Area Prescription for 5.11, 5.12, 5.13, p. 2-40, p. 2-43, 2-45). Design livestock grazing prescriptions to include achievement of wildlife goals for deer and elk winter range (Management Area Prescription 5.41, p. 2-48).</p> <p>Ecological Site Descriptions have not been developed for the Routt National Forest and we are not currently using them in NEPA or Allotment Management Plan revisions. The Routt National Forest completes Rangeland Health Assessments based on the R2 Rangeland Analysis and Management Training Guide (US Department of Agriculture, Rocky Mountain Region 1996) in NEPA and Allotment Management Plan revisions.</p>
23	Range	<p>Colorado River Valley RMP: Assess vegetation attributes within grazing allotments to ensure that BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management are met per established protocols and technical references.</p> <p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Kremmling RMP: No similar action.</p>

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		<p>Little Snake RMP:</p> <ul style="list-style-type: none"> • Manage for a diversity of seral stages within plant communities. • Restore natural disturbance regimes, such as fire, and vegetation treatments to accomplish biodiversity objectives. • Establish desired plant communities in coordination with stakeholders across the LSFO. • Restore a diversity of seral stages within sagebrush communities. • Maintain large patches of high-quality sagebrush habitats, consistent with the natural range of variability for sagebrush communities in northwest Colorado. <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health surveys, and application of the GSFO Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p> <p>White River RMP: Acceptable desired plant communities will be managed in an ecological status of high-seral or healthy mid-seral for all rangeland plant communities. An exception may be provided for wildlife habitat -areas where specific cover types are needed. The required cover type in those wildlife habitat areas will be the desired plant communities. The ecological status of a desired plant community in specified wildlife habitat areas could be lower than high seral. In which case, the desired plant communities will be managed, at a minimum, to maintain an at-risk rating (Table 2.6 of Appendix D [of the White River RMP]) and have a stable to improving trend in ecological status.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9) as described above.</p>
24	Range	<p>Colorado River Valley RMP: Assess vegetation attributes within grazing allotments to ensure that BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management are met per established protocols and technical references.</p>

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		<p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Kremmling RMP: No similar action.</p> <p>Little Snake RMP: Manage for a diversity of seral stages within plant communities.</p> <p>Restore natural disturbance regimes, such as fire, and vegetation treatments to accomplish biodiversity objectives.</p> <p>Establish desired plant communities in coordination with stakeholders across the LSFO.</p> <p>Restore a diversity of seral stages within sagebrush communities.</p> <p>Maintain large patches of high-quality sagebrush habitats, consistent with the natural range of variability for sagebrush communities in northwest Colorado.</p> <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health surveys, and application of the GSFO Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p>

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		<p>White River RMP: Acceptable desired plant communities will be managed in an ecological status of high-seral or healthy mid-seral for all rangeland plant communities. An exception may be provided for wildlife habitat -areas where specific cover types are needed. The required cover type in those wildlife habitat areas will be the desired plant communities. The ecological status of a desired plant community in specified wildlife habitat areas could be lower than high seral. In which case, the desired plant communities will be managed, at a minimum, to maintain an at-risk rating (Table 2.6 of Appendix D [of the White River RMP]) and have a stable to improving trend in ecological status.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9) as described above.</p>
25	Range	<p>Colorado River Valley RMP: No similar action.</p> <p>Grand Junction RMP: Manage vegetation to meet BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado while taking in to account site potential as determined by ecological site inventories, Range/Ecological Site Descriptions, Soils, completed Land Health Assessments, and site-specific management objectives.</p> <p>Implement changes in livestock use through allotment management plans, grazing use agreements, and terms and conditions on grazing permits for priority allotments based on the current prioritization process and/or land health issues</p> <p>Revise or implement allotment management plans/grazing use agreements to resolve conflicts between grazing and management of soils, riparian, and water resources.</p> <p>Kremmling RMP: Common to All Alternatives.</p> <p>Little Snake RMP: Manage resources, vegetation, and watersheds to sustain a variety of uses, including livestock grazing, and to maintain the long-term health of the rangelands.</p>

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		<p>Managing to meet plant reproductive and physiological needs, minimize conflicts...in areas of increased pressure on forage and riparian zones, and manage plant utilization.</p> <p>Grazing management practices promote plant health by providing for one or more of the following: Periodic rest or deferment from grazing during critical growth periods, adequate recovery and regrowth periods, and opportunity for seed dissemination and seedling establishment</p> <p>Natural occurrences...should be combined with livestock management practices to move towards the sustainability of biological diversity.</p> <p>Grazing management practices address the kind, numbers, and class of livestock, season, duration, distribution, frequency, and intensity of grazing use and livestock health</p> <p>Roan Plateau RMP: Ensure that Land Health Standards are being met through Land Health surveys, and application of the GSFO Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (e.g., fences and ponds) to direct livestock use to meet resource objectives and Land Health Standards.</p> <p>White River RMP: The 54 allotments placed in the improve category were identified for development of Allotment Management Plans. The Allotment Management Plans will direct livestock management through decisions, such as:</p> <ol style="list-style-type: none"> 1) grazing systems; 2) season-of-use; 3) number and kind of livestock; and 4) range developments or vegetative treatments. <p>Monitor, evaluate, and adjust livestock management practices to meet resource objectives.</p> <p>Changes in the 1981 forage allocations will be identified in allotment management plans or integrated activity plans.</p>

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		<p>The average 50 percent above ground annual forage production available for allocation is based upon the following grazing utilization levels on key forage plant species, averaged on a grazing allotment basis:</p> <p><u>Key Species–Grass</u></p> <ul style="list-style-type: none"> • 40 percent averaged utilization for the grazing period from April 1 to June 15 each grazing year. • 40 to 60 percent averaged utilization for the grazing period from June 15 to September 15 each grazing year. • 60 percent averaged utilization for the grazing period from September 15 to March 31 each grazing year <p><u>Key Species–Browse</u></p> <ul style="list-style-type: none"> • 40 percent averaged utilization for the grazing period from April 1 to September 30 each grazing year. • 50 to 60 percent averaged utilization for the grazing period from October 1 to March 31 each grazing year. <p>It is recognized that these utilization levels are used as averages to identify an appropriate allocation mix among grazing/browsing animals. Site-specific occurrences of over utilization may occur and may create resource conflicts that cannot be resolved by changing the forage allocation mix. Specific resource conflicts will be identified and corrective management sought through development of allotment management plans or integrated activity plans.</p> <p>Allotment Management Plans for the remaining 35 allotments in the improve category will be developed as time and funding permit. Current livestock grazing levels and management practices will continue to be authorized on the 36 maintain and 54 custodial category allotments. The improve category allotments will receive highest priority for public funding for needed rangeland improvements and livestock management facilities. The custodial category allotments will receive the lowest priority for public funding of rangeland improvements.</p> <p>Routt National Forest: Phase out season-long grazing systems that allow for livestock grazing use in an individual unit during the entire vegetative growth period, except where determined to achieve or maintain the desired plant community (Range Standard, p. 1-9).</p> <p>Remove livestock from the grazing unit or allotment when further utilization on key areas will exceed allowable-use criteria in the Forest Plan or allotment management plan (Range Standard, p. 1-9).</p>

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26	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: No similar action.</p> <p>Routt National Forest: No similar action.</p>
27	Range	<p>Colorado River Valley RMP: Manage for riparian/wetland values using management actions for improvement or protection. These actions may include, but are not limited to, implementing grazing management actions (e.g., adjusting livestock numbers, distribution, season of use, and duration of use), plantings, recreation restrictions, structures (e.g., fencing), and upland water developments.</p> <p>Grand Junction RMP: Manage riparian habitat in compliance with the Land Health Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment and provides forage habitat and biodiversity. Water quality is improved or maintained. Stable soils store and release water.</p> <p>Protect riparian areas by prohibiting surface disturbances in these areas year round.</p> <p>Kremmling RMP: Under all of the proposed alternatives, the water quality of all water bodies on, or influenced by, BLM-managed public lands, including ground water (where applicable), would be managed in a manner designed to achieve, or exceed, the water quality standards established by the State of Colorado. Water quality standards for surface water and ground water include the designated beneficial uses, numeric criteria, and anti-degradation requirements set forth under State law as required by Section 303(c) of the Clean Water Act.</p> <p>Little Snake RMP: Riparian systems... function properly. Riparian vegetation captures sediment and provides forage, habitat, and biodiversity.</p> <p>Special status...species...and its habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.</p>

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		<p>Roan Plateau RMP: Apply guidelines and BMPs to rest and defer grazing of riparian areas.</p> <p>Achieve a minimum condition rating of proper functioning condition and late-seral stage plant community development in riparian areas and provide high quality fisheries habitat atop the plateau.</p> <p>Establish condition ratings based on Ecological Site Indices (or equivalent assessments of potential natural vegetation based on site and soil characteristics and conditions). Manage to improve riparian related fisheries habitat atop the plateau based on site potential findings.</p> <p>Avoid or mitigate activities that could cause a downward trend in the condition of riparian resources or functioning condition.</p> <p>Initiate activity plans which identify habitat improvement projects to achieve desired conditions.</p> <p>White River RMP: Riparian-wetland objectives will be met by locating livestock management facilities (corrals or holding facilities, wells, pipelines, fences) or livestock management practices (salting and supplemental feeding) outside riparian-wetland areas. Existing livestock management facilities or practices that do not meet management objectives will be relocated or removed from all riparian habitats that are nonfunctioning or functioning at risk.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9) as described above.</p>
28	Range	<p>Colorado River Valley RMP: Manage for riparian/wetland values using management actions for improvement or protection. These actions may include, but are not limited to, implementing grazing management actions (e.g., adjusting livestock numbers, distribution, season of use, and duration of use), plantings, recreation restrictions, structures (e.g., fencing), and upland water developments.</p>

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		<p>Grand Junction RMP: Manage riparian habitat in compliance with the Land Health Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment and provides forage habitat and biodiversity. Water quality is improved or maintained. Stable soils store and release water.</p> <p>Protect riparian areas by prohibiting surface disturbances in these areas year round.</p> <p>Kremmling RMP: Under all of the proposed alternatives, the water quality of all water bodies on, or influenced by, BLM-managed public lands, including ground water (where applicable), would be managed in a manner designed to achieve, or exceed, the water quality standards established by the State of Colorado. Water quality standards for surface water and ground water include the designated beneficial uses, numeric criteria, and anti-degradation requirements set forth under State law as required by Section 303(c) of the Clean Water Act.</p> <p>Little Snake RMP: Riparian systems... function properly. Riparian vegetation captures sediment and provides forage, habitat, and biodiversity.</p> <p>Special status...species...and its habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.</p> <p>Roan Plateau RMP: Apply guidelines and BMPs to rest and defer grazing of riparian areas.</p> <p>Achieve a minimum condition rating of proper functioning condition and late-seral stage plant community development in riparian areas and provide high quality fisheries habitat atop the plateau.</p> <p>Establish condition ratings based on Ecological Site Indices (or equivalent assessments of potential natural vegetation based on site and soil characteristics and conditions). Manage to improve riparian related fisheries habitat atop the plateau based on site potential findings.</p>

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		<p>Avoid or mitigate activities that could cause a downward trend in the condition of riparian resources or functioning condition.</p> <p>Initiate activity plans which identify habitat improvement projects to achieve desired conditions.</p> <p>White River RMP: Riparian-wetland objectives will be met by locating livestock management facilities (corrals or holding facilities, wells, pipelines, fences) or livestock management practices (salting and supplemental feeding) outside riparian-wetland areas. Existing livestock management facilities or practices that do not meet management objectives will be relocated or removed from all riparian habitats that are nonfunctioning or functioning at risk.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9) as described above.</p>
29	Range	<p>Colorado River Valley RMP: Manage for riparian/wetland values using management actions for improvement or protection. These actions may include, but are not limited to, implementing grazing management actions (e.g., adjusting livestock numbers, distribution, season of use, and duration of use), plantings, recreation restrictions, structures (e.g., fencing), and upland water developments.</p> <p>Grand Junction RMP: Manage riparian habitat in compliance with the Land Health Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment and provides forage habitat and biodiversity. Water quality is improved or maintained. Stable soils store and release water.</p> <p>Protect riparian areas by prohibiting surface disturbances in these areas year round.</p> <p>Kremmling RMP: Under all of the proposed alternatives, the water quality of all water bodies on, or influenced by, BLM-managed public lands, including ground water (where applicable), would be managed in a manner designed to achieve, or exceed, the water quality standards established by the State of Colorado. Water quality standards for surface water and ground water include the designated beneficial uses, numeric criteria, and anti-degradation</p>

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		<p>requirements set forth under State law as required by Section 303(c) of the Clean Water Act.</p> <p>Little Snake RMP: Riparian systems... function properly. Riparian vegetation captures sediment and provides forage, habitat, and biodiversity.</p> <p>Special status...species...and its habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.</p> <p>Roan Plateau RMP: Apply guidelines and BMPs to rest and defer grazing of riparian areas.</p> <p>Achieve a minimum condition rating of proper functioning condition and late-seral stage plant community development in riparian areas and provide high quality fisheries habitat atop the plateau.</p> <p>Establish condition ratings based on Ecological Site Indices (or equivalent assessments of potential natural vegetation based on site and soil characteristics and conditions). Manage to improve riparian related fisheries habitat atop the plateau based on site potential findings.</p> <p>Avoid or mitigate activities that could cause a downward trend in the condition of riparian resources or functioning condition.</p> <p>Initiate activity plans which identify habitat improvement projects to achieve desired conditions.</p> <p>White River RMP: Riparian-wetland objectives will be met by locating livestock management facilities (corrals or holding facilities, wells, pipelines, fences) or livestock management practices (salting and supplemental feeding) outside riparian-wetland areas. Existing livestock management facilities or practices that do not meet management objectives will be relocated or removed from all riparian habitats that are nonfunctioning or functioning at risk.</p> <p>Routt National Forest: Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment</p>

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		management plan, apply the utilization and residue guidelines in Tables 1-2 and 1-3 (Range Guideline, p. 1-9) as described above.
30	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Development of springs, seeps, and other project improvements will be designed to maintain or improve the ecological and hydrological values of those sites.</p> <p>Water developments (springs, reservoirs, catchments; wells, pipeline and water troughs) will conform to BLM Manual H-1741-2.</p> <p>Impoundments offering conditions suitable for pond fisheries will have aquatic conditions enhanced, where appropriate, by:</p> <ol style="list-style-type: none"> 1) controlling excessive aquatic plant growth; 2) establishing desirable shoreline vegetation; 3) restoring reservoir depth; and/or 4) controlling sediment input.
31	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Development of springs, seeps, and other project improvements will be designed to maintain or improve the ecological and hydrological values of those sites.</p> <p>Water developments (springs, reservoirs, catchments; wells, pipeline and water troughs) will conform to BLM Manual H-1741-2.</p> <p>Impoundments offering conditions suitable for pond fisheries will have aquatic conditions enhanced, where appropriate, by:</p> <ol style="list-style-type: none"> 1) controlling excessive aquatic plant growth;

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		2) establishing desirable shoreline vegetation; 3) restoring reservoir depth; and/or 4) controlling sediment input.
32	Range	Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
33	Range	Colorado River Valley RMP, Grand Junction RMP, Roan Plateau RMP: No similar action. Kremmling RMP: Common to all alternatives. Little Snake RMP: <ul style="list-style-type: none"> • Preserve and protect special status species. • Sustain the integrity of the sagebrush biome to maintain viable populations of GRSG. • Identify and initiate restoration and rehabilitation of sagebrush habitat. White River RMP: Standard operating procedure. Routt National Forest: NEPA analysis procedures are described in Forest Service Manual and Handbook and include the direction proposed in Alternative B.
34	Range	Grand Junction RMP, Kremmling RMP, Roan Plateau RMP, Routt National Forest: No similar action. Colorado River Valley RMP: Following initial allocation, manipulate 27,800 acres of vegetation on 98 allotments to increase livestock forage by 12,700 AUMs using vegetation manipulation techniques, resulting in total projected allocation of 51,900 AUMs. Little Snake RMP: <ul style="list-style-type: none"> • Grazing will be managed by using standards and guidelines processes. • Appropriate actions for improving allotments that do not meet the Colorado standards and guidelines include: livestock water developments, range improvements, riparian pastures, and enclosures. • Range improvement projects are designed consistent with overall ecological functions and processes with minimum adverse impacts on other resources.

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		White River RMP: Fence reservoirs, where possible to create riparian vegetation and wildlife habitat providing water to livestock through water gaps in the fence or piped to a water trough.
35	Range	Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
36	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: Preserve and protect special status species.</p> <p>Identify and initiate restoration and rehabilitation of sagebrush habitat while maintaining a mosaic of canopy cover and seral stages.</p> <p>Special status, threatened and endangered species, and other plants and animals officially designated by the BLM and its habitats are maintained and enhanced by sustaining healthy, native plant and animal communities.</p> <p>Natural occurrences...should be combined with livestock management practices to move toward the sustainability of biological diversity across the landscape, including the maintenance, restoration, or enhancement of habitat to promote and assist recovery and conservation of threatened, endangered, or other special status species by helping provide natural vegetation patterns, a mosaic of successional stages, and vegetation corridors thus minimizing habitat fragmentation.</p> <p>White River RMP: Locate livestock water developments and salting sites away from riparian and wetland areas.</p>
37	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Fence design will conform to BLM Manual H 1737-I to accommodate negotiation by big game and minimize fence damage. Modifications to fence design may be authorized on a case-by-case basis by the Area Manager as necessary to satisfy special fencing objectives.</p>

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38	Range	<p>Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Colorado River Valley RMP: Hold project proponents, including livestock operators, ROWs holders, and other permittees deemed necessary by the Authorized Officer, responsible for monitoring and controlling noxious weeds that result from any new facilities, improvements or other surface disturbances authorized on BLM land (e.g., roads, communication sites, pipelines, stock ponds, and fences).</p> <p>Little Snake RMP: Grazing management will occur in a manner that does not encourage the establishment or spread of noxious weeds.</p> <p>Range improvement projects are designed consistent with overall ecological functions and processes with minimum adverse impacts on other resources.</p> <p>Reduce the occurrence of noxious and undesirable plant species. Objectives for achieving this goal include: Ensure all land use actions that could potentially increase the occurrence of noxious weeds are conducted by using PDFs; Apply principles of integrated pest management.</p> <p>White River RMP: In accordance with the White River Resource Area Noxious Weed Management Plan, manage noxious weeds with particular emphasis on a coordinated, cooperative approach. Implement practices that prevent or reduce the extent and occurrence of noxious and problem weeds throughout the Resource Area.</p> <p>Three contiguous areas encompassing 497,900 acres will be designated as weed free zones upon approval of this document (see Map 2-8 [of the White River RMP]).</p> <p>Weed management will be emphasized in these areas through cooperation with private land owners and state and county governments. The areas will, be identified on the ground with signs. The following special conditions will be attached to use authorizations approved within these areas:</p> <ol style="list-style-type: none"> 1) All construction equipment and vehicles will be cleaned prior to entering BLM Weed Free Zones. 2) All hay, straw, unprocessed feed and seed used in BLM Weed Free Zones must be certified free of specified

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		<p>noxious weeds listed in Colorado Weed Seed Free Forage Certification standards.</p> <p>3) All authorized users of disturbed areas will be required to inventory for noxious weeds in both the spring and fall.</p> <p>Routt National Forest: Control nonnative and noxious plants throughout the Forest, with priority given to designated wilderness (Undesirable Species Standard, p. 1-16). Develop a noxious weed and pest management program that addresses awareness, prevention, inventory, planning, treatment, monitoring, reporting, and management objectives. Priorities for implementing a program for undesirable plants include: a. New invaders, b. New areas, c. Spreading or expanding infestations, d. Existing infestations (Undesirable Species Guideline p. 1-16).</p>
39	Range	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP, Routt National Forest, White River RMP: No similar action.</p> <p>Little Snake RMP: Provide the opportunity to create reserve conservation allotments... A reserve conservation allotment is a vacant allotment with no attached grazing preference whose purpose is to provide alternative forage for BLM permittees/lessees during the rest requirement while their customary allotment is undergoing rangeland recovery from natural disturbances or restoration projects.</p>
Wild Horse Management		Objective: No similar objective.
40	Wild Horses	<p>Little Snake RMP: Manage the Sand Wash wild horse herd as an integral part of the public lands ecosystem at an appropriate management level. Periodically reevaluate the existing appropriate management level to ensure herd size remains compatible with other resources.</p> <p>White River RMP: Wild horses will be managed to provide a healthy, viable breeding population with a diverse age structure.</p>
41	Wild Horses	<p>Little Snake RMP: The guidelines and criteria for adjusting appropriate management level include current monitoring data, rate of herd increase, competing uses. The goal is to manage the Sand Wash herd at an appropriate management level that is compatible with other resources.</p>

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		White River RMP: No similar action.
42	Wild Horses	<p>Little Snake RMP: Appendix F (of the Little Snake RMP) includes direction on collecting data and monitoring a variety of resource indicators. By implementing the monitoring direction in Appendix F (of the Little Snake RMP), the BLM will continue to gather important information to ensure the goals and objectives identified in the Approved RMP are met.</p> <p>White River RMP: Monitoring studies will be conducted and the long-term appropriate management level for the HMA will be adjusted based on the results of this monitoring.</p>
43	Wild Horses	Little Snake RMP, White River RMP: No similar action.
44	Wild Horses	<p>Little Snake RMP: Guidelines and criteria for adjusting appropriate management level include current monitoring data, rate of herd increase, competing uses, frequency of gathering cycle, other population management options, and herd genetics. Appendix F (of the Little Snake RMP) includes direction on collecting data and monitoring a variety of resource indicators. By implementing the monitoring direction in Appendix F (of the Little Snake RMP), the BLM will continue to gather important information to ensure the goals and objectives identified in the Approved RMP are met.</p> <p>White River RMP: Monitoring studies will be conducted and the long-term appropriate management level for the HMA will be adjusted based on the results of this monitoring.</p>
45	Wild Horses	<p>Little Snake RMP: The guidelines and criteria for adjusting appropriate management level include current monitoring data, rate of herd increase, competing uses. The goal is to manage the Sand Wash herd at an appropriate management level that is compatible with other resources.</p> <p>White River RMP: No similar action.</p>
Fluid Minerals		Objective: No similar objective.
46	Fluid Minerals	<p>Colorado River RMP: Allowable Use: STIPULATION GS-NSO-12: <i>Threatened or Endangered Species</i>. Prohibit surface occupancy and surface-disturbing activities on habitat areas for those species listed by the federal or state government as endangered or threatened and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species.</p>

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		<p>Grand Junction RMP: No Leasing: <i>BLM surface/federal minerals.</i> Manage 96,500 acres of the federal mineral estate underlying BLM surface as closed to fluid mineral leasing and geophysical exploration. (Refer to Appendix B [of the Grand Junction RMP].)</p> <ul style="list-style-type: none"> • Unawep Seep ACEC; and • WSAs. <p>Kremmling RMP: Current restriction on use prohibits surface occupancy and surface-disturbing activities within a 0.25-mile radius of an active lek. Chapter 2, Pg. 72.</p> <p>Little Snake RMP: RMP-36/ 2.13. 242,560 ac are closed to leasing.</p> <p>Roan Plateau RMP: No similar action.</p> <p>White River RMP: The nondiscretionary lands include the six WSAs and the National Park Service's Harper's Corner Road withdrawal (see Map 2-2 [of the White River RMP]). (p2-5).</p> <p>Routt National Forest: No similar action.</p> <hr/> <p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, White River RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: RMP-39/2.31. "Using oil and gas stipulations as reference point, restrictions will be determined at the permitting stage on a case by case basis".</p> <p>Roan Plateau RMP: Allow geophysical exploration within GRSG PHMA areas to obtain information for existing federal fluid mineral leases or areas adjacent to state or fee lands within GRSG PHMA areas. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal TLs and other restrictions that may apply.</p>
47	Fluid Minerals	<p>Colorado River RMP: Lease Notice LN CO-34: ESA. The lease area may now or hereafter contain plants, animals, or its habitats determined to be threatened, endangered, or other special status species. BLM may recommend</p>

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		<p>modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or its habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the ESA as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.</p> <p>Grand Junction RMP: No similar action.</p> <p>Kremmling RMP: Standard lease terms and leasing stipulations would be applied to leases. COAs, PDFs, and standard operating procedures (see Appendices D and E [of the Kremmling RMP]), design features, and mitigation measures would be applied to development proposals. (The BLM has the discretion to modify surface operations in order to change or to add specific mitigation measures when supported by scientific analysis.) All mitigation and conservation measures not already required as stipulations will be analyzed in a site-specific environmental analysis document, and be incorporated, as appropriate, into COAs of Permits, Plans of Development, or other use authorizations. Ch. 2, Pg. 130.</p> <p>Little Snake RMP: RMP Appendix B (of the Little Snake RMP), p. B-3/B-8. For Existing Leases, PDFs will be required as COAs on drilling applications.</p> <p>Roan Plateau RMP: Lease Notice LN CO-34: ESA. The lease area may now or hereafter contain plants, animals, or its habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or its habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat</p>

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		<p>until it completes its obligations under applicable requirements of the ESA as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.</p> <p>White River RMP: COAs will be attached, as appropriate, to help mitigate the site-specific impacts of an authorization. These mitigating measures may be supplemented with additional requirements or replaced by alternative measures that will accomplish the same result as well or better than the original. (p1-2).</p> <p>For activities other than oil and gas leasing, applicable stipulations will be attached to use authorizations at the Resource Area as COAs. (pA-1).</p> <p>This plan does not repeal valid existing rights on public lands. A valid existing right is a claim or authorization that takes precedence over the decisions developed in this plan. However, such authorizations will be reviewed and brought into conformance with the plan prior to amendment, renewal, or reissuance of the authorization. All future resource authorizations and actions will conform to, or not conflict with, the decisions developed in the RMP. Subject to the valid existing rights mentioned above, all existing operations and activities authorized under permits, contracts, cooperative agreements or other authorization for use or occupancy will be modified, as necessary, to conform with this plan within a reasonable timeframe. (p1-1).</p> <p>Monitoring will help determine whether actions are consistent with current policy and provide feedback as to whether the original assumptions were correctly applied and impacts correctly predicted. It will also provide data as to the adequacy of the mitigation measures (stipulations and COAs). (p1-2).</p> <p>Routt National Forest: (ADH) Recommend consent to lease with appropriate lease terms or stipulations, as set forth in the Forest Oil and Gas Leasing Analysis ROD (1993) and updated by the Forest Plan, Final EIS, and ROD (Mineral and Energy Leasable Minerals Standard, p. 1-4). Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction); Operational damages to surface resources include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy Leasable Minerals Standard, p. 1-4). Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals.</p>

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		Prohibiting such development is not an alternative (Mineral and Energy – Reserved and Outstanding Rights, p. 1-6).
48	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
49	Fluid Minerals	<p>Colorado River RMP: Allowable Use: STIPULATION GS-NSO-12: <i>Threatened or Endangered Species</i>. Prohibit surface occupancy and surface-disturbing activities on habitat areas for those species listed by the federal or state government as endangered or threatened and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species</p> <p>Grand Junction RMP: No similar action.</p> <p>Kremmling RMP: TL CO-15: GRSG Winter Habitat – Prohibit surface occupancy and surface-disturbing activities during certain timeframes in GRSG crucial winter habitat and nesting habitat (includes GRSG). [GRSG nesting habitat is described as sagebrush stands with sagebrush plants between 30 centimeters and 100 centimeters (approximately 12 inches and 40 inches) in height, and a mean canopy cover between 15 percent and 40 percent within a 2-mile radius of an active lek.] GRSG crucial winter habitat: December 16 to March 15; and GRSG nesting habitat: March 1 to June 30. (See Appendix C [of the Kremmling RMP].) Chapter 2, Pg. 73.</p> <p>Little Snake RMP: RMP-36/ 2.13. 222,910 ac are NSO leasing. NSO would be applied within 0.6 mile of GRSG lek.</p> <p>Roan Plateau RMP: STIPULATION GS-NSO-ROAN-24, <i>Threatened, Endangered, or Candidate Species Habitat</i> – In order to protect occupied habitat and immediately adjacent potential habitat crucial for the maintenance or recovery of species listed under the ESA or by the State of Colorado as threatened or endangered (including proposed or candidate species under the ESA), no ground-disturbing activities will be authorized within occupied habitat or immediately adjacent potential habitat necessary for maintenance or recovery of the species.</p> <p>White River RMP: GRSG Winter Concentration Areas. This area encompasses sagebrush habitats that are occupied by wintering concentrations of GRSG, or represent the only habitats that remain available for use during periods of heavy snowpack. No development activity will be allowed between December 16 and March 15. The</p>

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		<p>Colorado Division of Wildlife (now CPW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. (pA-21).</p> <p>Routt National Forest: (ADH) Recommend consent to lease with appropriate lease terms or stipulations, as set forth in the Forest Oil and Gas Leasing Analysis ROD (Forest Service 1993) and updated by the Forest Plan, Final EIS, and ROD (Mineral and Energy Leasable Minerals Standard, p. 1-4). Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction). Operational damages to surface resources include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy Leasable Minerals Standard, p. 1-4). Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals. Prohibiting such development is not an alternative (Mineral and Energy – Reserved and Outstanding Rights, p. 1-6).</p>
50	Fluid Minerals	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: ROD-RMP, Appendix B (of the Little Snake RMP), 3-11. 1 percent and 5 percent disturbance caps voluntary on existing leases in exchange for relaxed winter range restrictions. CSU would be applied to all new leases with priority sagebrush habitat. CSU 1 percent and 5 percent disturbance caps would be voluntary for existing leases and applied to new leases with priority sagebrush habitat.</p> <p>RMP-36/ 2.13. 222,910 ac are NSO leasing. NSO would be applied within 0.6-mile of GRSG lek.</p> <p>White River RMP: Surface occupancy is not allowed within 0.25-mile of identified lek sites (p. A-5).</p> <p>Routt National Forest: (ADH) Recommend consent to lease with appropriate lease terms or stipulations, as set forth in the Forest Oil and Gas Leasing Analysis ROD (Forest Service 1993) and updated by the Forest Plan, Final EIS, and ROD (Mineral and Energy Leasable Minerals Standard, p. 1-4). Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction). Operational damages to surface resources</p>

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		include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy Leasable Minerals Standard, p. 1-4). Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals. Prohibiting such development is not an alternative (Mineral and Energy – Reserved and Outstanding Rights, p. 1-6).
51	Fluid Minerals	<p>Colorado River RMP, Grand Junction RMP, Roan Plateau RMP: No similar action.</p> <p>Kremmling RMP: NSO CO-02: Grouse Leks – Prohibit surface occupancy and surface-disturbing activities within a 0.25-mile radius of an active lek (courtship area). Grouse includes GRSG, Columbian sharp-tailed grouse, and Lesser and Greater prairie chickens. (See Appendix C [of the Kremmling RMP].) Ch. 2, Pg. 72.</p> <p>Little Snake RMP: ROD-RMP, Appendix B (of the Little Snake RMP), 3-11. 1 percent and 5 percent disturbance caps voluntary on existing leases in exchange for relaxed winter range restrictions. CSU would be applied to all new leases with priority sagebrush habitat. CSU 1 percent and 5 percent disturbance caps would be voluntary for existing leases and applied to new leases with priority sagebrush habitat.</p> <p>RMP-36/ 2.13. 222,910 ac are NSO leasing. NSO would be applied within 0.6-mile of GRSG lek.</p> <p>White River RMP: Vegetation treatment widths should generally not exceed 200 feet. Treatment areas should be interspersed with equal or larger intervals of suitable cover. Cumulative adverse manipulations would not be allowed to exceed 10 percent of suitable nest habitat within 2 miles of a lek. (p2-32).</p> <p>Routt National Forest: (ADH) Recommend consent to lease with appropriate lease terms or stipulations, as set forth in the Forest Oil and Gas Leasing Analysis ROD (Forest Service 1993) and updated by the Forest Plan, Final EIS, and ROD (Mineral and Energy Leasable Minerals Standard, p. 1-4). Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction). Operational damages to surface resources include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy Leasable Minerals Standard, p. 1-4). Negotiate surface management for private</p>

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		oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals. Prohibiting such development is not an alternative (Mineral and Energy – Reserved and Outstanding Rights, p. 1-6).
52	Fluid Minerals	<p>Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Colorado River RMP: Allowable Use: STIPULATION GS-TL-3: GRSG Winter and Nesting Habitat. Prohibit surface occupancy and surface-disturbing activities during certain timeframes in grouse crucial winter habitat and nesting habitat (includes GRSG). Nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centimeters (approximately 12 and 40 inches) in height and a mean canopy cover between 15 and 40 percent within a 2-mile radius of an active lek. Winter habitat: December 16 to March 15. Nesting habitat: March 1 to June 30.</p> <p>Little Snake RMP: RMP, Appendix B-13 – TLs (of the Little Snake RMP) will apply to GRSG nesting and brood-rearing habitat (4 miles from lek) and to GRSG crucial winter habitat.</p> <p>White River RMP: GRSG Nesting Habitat. This area encompasses suitable GRSG nesting habitat associated with individual leks. This stipulation will not take effect until direct and indirect impacts to suitable nesting cover exceeds 10 percent of the habitat available within 2 miles of identified leks. Further development, after this threshold has been exceeded, will not be allowed from April 15 through July 7. (Development can occur until 10 percent of the habitat associated with a lek is impacted, from then on, additional activity can occur from July 8 through April 14.) (p. A-18).</p> <p>Routt National Forest: Timing stipulation for Grouse Breeding Complex March 1 to June 30.</p>
53	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
54	Fluid Minerals	<p>Colorado River RMP, Kremmling RMP, White River RMP: No similar action.</p> <p>Grand Junction RMP: In areas being actively developed, the operator must submit a Master Development Plan (formerly known as Geographic Area Proposal) that describes a minimum of 2 to 3 years activity for operator-controlled federal leases within a reasonable geographic area (to be determined jointly with BLM). Use the Master</p>

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		<p>Development Plan to plan development of federal leases within the area to account for well locations, roads, and pipelines, and to identify cumulative environmental effects and appropriate mitigation. The extent of the analysis would be dependent on the extent of surface ownership, extent of lease holdings, topography, access, and resource concerns. This requirement for a Master Development Plan may be waived for individual or small groups of exploratory wells, for directional wells drilled on previously developed well pads.</p> <p>Little Snake RMP: RMP-24, require development plans. RMP-39/ 2.13. PDFs will be developed.</p> <p>Roan Plateau RMP: Prior to exploration and/or lease development within the planning area, the operator must submit a Geographic Area Proposal identifying projected activity (including well locations, pipelines, and facilities) during the next 2 to 5 years and appropriate mitigation.</p> <p>Routt National Forest: (ADH) Recommend consent to lease with appropriate lease terms or stipulations, as set forth in the Forest Oil and Gas Leasing Analysis ROD (Forest Service 1993) and updated by the Forest Plan, Final EIS, and ROD (Mineral and Energy Leasable Minerals Standard, p. 1-4). Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction). Operational damages to surface resources include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy Leasable Minerals Standard, p. 1-4). Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals. Prohibiting such development is not an alternative (Mineral and Energy – Reserved and Outstanding Rights, p. 1-6).</p>
55	Fluid Minerals	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: No similar action.</p> <p>Little Snake RMP: ROD-RMP, Appendix B (of the Little Snake RMP), 3-11. 1 percent and 5 percent disturbance caps voluntary on existing leases in exchange for relaxed winter range restrictions. CSU would be applied to all new leases with priority sagebrush habitat. CSU 1 percent and 5 percent disturbance caps would be voluntary for existing leases and applied to new leases with priority sagebrush habitat.</p>

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		RMP-36/ 2.13. 222,910 acres are NSO leasing. NSO would be applied within 0.6-mile of GRSG lek. Routt National Forest: No similar action.
56	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: No similar action. Routt National Forest: No similar action.
57	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
58	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, White River RMP, Routt National Forest: No similar action. Roan Plateau RMP: STIPULATION GS-CSU-ROAN-13: <i>Parachute Creek High Value Watershed</i> – Before on-the-ground lease operations on top of the plateau, all lessees/leases will join a Federal Unitization Agreement approved by the BLM.
59	Fluid Minerals	Colorado River Valley RMP: No similar action. Grand Junction RMP: Consider acquisition of lands that meet the following criteria: <ul style="list-style-type: none"> • Private land within areas recommended as suitable for designation as wilderness; • Private land needed for management of Wild and Scenic Rivers; • Potential national or historic trails; • Potential natural or RNAs; • Potential areas for cultural or natural history designation; • Potential ACECs; • Private land within designated wild horse preserves; • Private land with potential for other congressional designations; • Threatened or endangered species habitat areas; • Riparian habitat areas;

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		<ul style="list-style-type: none"> • Valuable recreation areas; • Wetland areas as defined in Executive Order 11990, dated May 24, 1977; and • Floodplain areas (100-year) as defined in Executive Order 11988, dated May 24, 1977. <p>Kremmling RMP: Apply the following criteria when considering land tenure adjustments:</p> <ul style="list-style-type: none"> • Retain all public lands or interests in land (such as easements) that enhance multiple-use and sustained-yield management; • Acquire lands or interests in land that complement important resource values and further management objectives. <p>Little Snake RMP: Central Zone: Acquisition of lands in the area should be actively sought to protect wildlife habitat, especially GRSG.</p> <p>Central, East and West Zones: Acquisition areas can be identified for the public's interest.</p> <p>Roan Plateau RMP: Retain lands on top of the plateau, and acquire in-holdings atop the plateau.</p> <p>Acquisition of inholdings, and other lands with important resource values, would be encouraged or allowed.</p> <p>White River RMP: Acquisition of non-BLM lands may be pursued through exchange, purchase or donation, where the acquisition will serve to enhance the BLM's objectives and special emphasis programs. For purchase or donation, acquisitions will generally be limited to inholdings within designated areas.</p> <p>Routt National Forest: In land adjustment activities including land exchange, purchase, disposal, and donation, consider the following:</p> <ul style="list-style-type: none"> c) Acquire lands that contain resource values identified during scoping as important in contributing toward national forest system resource management goals and objectives as stated in the Forest Plan. Examples include: wetlands, riparian areas, essential wildlife habitat, threatened or endangered species habitat, sensitive species habitat, significant cultural resources, timber lands, rangelands, or other areas (Real Estate-Land

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		Adjustments Standard, p. 1-24).
60	Fluid Minerals	Regulatory Requirement 43 CFR 3104.2, 3104.3, and 3104.5.
61	Fluid Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: The range of alternatives is articulated in the specific PDF sections. Routt National Forest: PDFs are not included in Current Management. All PDF listed in Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features, are required for all action alternatives.
Solid Minerals		Objective: No similar objective.
62	Solid Minerals— Coal	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, White River RMP, Routt National Forest: No similar action. Roan Plateau RMP: All environmental protection requirements of the various resources described in the RMP and contained in the various stipulations would apply to coal.
63	Solid Minerals— Coal	Grand Junction RMP, Kremmling RMP: No similar action. Colorado River RMP: Action: Manage approximately 28,500 acres of the federal mineral estate in CRVFO as open to consideration for coal leasing. Little Snake RMP: RMP, Appendix G-5 (of the Little Snake RMP) federal lands, which the surface management agency and the State jointly agree are fish and wildlife habitat for resident species of high interest to the State, and which are essential for maintaining these priority wildlife species, would be considered unsuitable. Examples of such lands that serve a critical function for the species involved include: <ul style="list-style-type: none"> • Active dancing and strutting grounds for GRSG, sharp-tailed grouse, and prairie chicken • Winter ranges most critical for deer, antelope, and elk • Migration corridors for elk.

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		<p>Lands found acceptable in this RMP will be available for further consideration for leasing and/or exchange. However, all lands determined to be suitable, unsuitable, or unacceptable for further consideration for leasing and/or exchange may be reviewed and suitability determinations may be modified on the basis of new data discovered during activity planning efforts. Unsuitability criteria will apply only to surface coal mining but not to underground mining. The lands with coal resource development potential in the Little Snake coal planning area are located in the Yampa and Danforth Hills coal fields. The coal planning includes federal coal within the following townships:</p> <p>Sixth Principal Meridian; Township 3 North, Range 85 West; Township 3 North, Range 86 West; Township 3 North, Range 90 West – Range 95 West; Township 4 North, Range 86 West – Range 95 West; Township 5 North, Range 85 West – Range 93 West; Township 6 North, Range 86 West – Range 93 West; Township 7 North, Range 87 West – Range 94 West; Township 8 North, Range 86 West – Range 94 West; and Township 9 North, Range 86 West. The coal planning area contains approximately 675,550 acres of federal coal lands or BLM surface estate.</p> <p>Unsuitability criteria have been applied to these lands to determine the areas unsuitable for surface mining. Results are shown in Appendix G (of the Little Snake RMP). After applying unsuitability criteria and exceptions, approximately 623,860 acres were deemed acceptable for further consideration for leasing for either surface or underground development (Map 16 [of the Little Snake RMP]).</p> <p>NSO stipulations for coal development will be used to protect raptor nest and roost sites and concentration areas, migratory bird habitats, floodplains, alluvial valley floors, and federally designated critical habitats for threatened or endangered plant and animal species. NSO stipulations will apply to Juniper Mountain Special Recreation Management Area (SRMA) and to Zone 1 of the Little Yampa SRMA; these areas will be acceptable for further consideration only for underground coal mining (NSO stipulation). Specific areas that have NSO stipulations for coal leasing are listed below (47,910 acres – acres are limited to the areas with coal potential, located in the southeastern portion of the LSFO):</p> <ul style="list-style-type: none"> • Raptor nest and roost sites and concentration areas (these stipulations are contained in the Coal Suitability Review in Appendix G [of the Little Snake RMP]) • Migratory bird habitats (these stipulations are contained in the Coal Suitability Review (Appendix G [of the Little Snake RMP])

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		<ul style="list-style-type: none"> • Floodplains (these stipulations are contained in the Coal Suitability Review in Appendix G [of the Little Snake RMP]) • Alluvial Valley Floors (these stipulations are contained in the Coal Suitability Review in Appendix G [of the Little Snake RMP]) • Federally designated critical habitats for threatened or endangered plant and animal species (these stipulations are contained in the Coal Suitability Review in Appendix G [of the Little Snake RMP]) • Little Yampa Canyon SRMA, Zone I • Juniper Mountain SRMA • The Cedar Mountain SRMA and WSR Yampa River segments I, 2, and 3 will not be available for coal leasing (3,780 acres). <p>Roan Plateau RMP: Make the area available for coal leasing.</p> <p>All environmental protection requirements of the various resources described in the RMP and contained in the various stipulations would apply to coal.</p> <p>STIPULATION GS-NSO-ROAN-24, <i>Threatened, Endangered, or Candidate Species Habitat</i> – In order to protect occupied habitat and immediately adjacent potential habitat crucial for the maintenance or recovery of species listed under the ESA or by the State of Colorado as threatened or endangered (including proposed or candidate species under the ESA), no ground-disturbing activities will be authorized within occupied habitat or immediately adjacent potential habitat necessary for maintenance or recovery of the species.</p> <p>White River RMP: The management of coal resources developed in the 1981 Coal Amendment to the White River Resource Area LUP is carried forward into this RMP. The Coal unsuitability criteria found at 43 CFR 3461 were not reapplied at the time this RMP was developed. (p 2-7).</p> <p>The unsuitability criteria will be reapplied at the time an application is received. (p 2-8).</p>

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		<p>Routt National Forest: Recommend against or deny consent to the BLM for issuance of leases, permits, or coal exploration licenses where operational damages to surface resources would not be reclaimed to acceptable conditions (per Forest Plan direction). Operational damages to surface resources include impacts from surface-based access, product transportation, and ancillary facilities necessary to production and related operations (Mineral and Energy – Leasable Minerals Standard p. 1-4).</p>
64	Solid Minerals- -Coal	<p>Colorado River RMP: STIPULATION GS-CSU-1: <i>Underground Coal Mines.</i> Apply CSU restrictions to oil and gas operations within the area of federally leased coal lands. Relocate oil and gas operations outside the area to be mined or located to accommodate room and pillar mining operations.</p> <p>Grand Junction RMP: No PHMA Acceptable for Coal Leasing.</p> <p>Kremmling RMP: No similar action.</p> <p>Little Snake RMP: RMP, Map 16; Coal Leasing and Development Restrictions. Underground mining exemption criteria for new leases:</p> <ul style="list-style-type: none"> • RMP-40; Unsuitability criteria will apply only to surface coal mining but not to underground mining • RMP, Map 16 (of the Little Snake RMP); Coal Leasing and Development Restrictions • RMP, Appendix G-5 (of the Little Snake RMP) Criterion 12 State Resident Fish and Wildlife <p>Federal lands, which the surface management agency and the State jointly agree are fish and wildlife habitat for resident species of high interest to the State, and which are essential for maintaining these priority wildlife species, would be considered unsuitable. Examples of such lands that serve a critical function for the species involved include:</p> <ul style="list-style-type: none"> • Active dancing and strutting grounds for GRSG, sharp-tailed grouse, and prairie chicken • Winter ranges most critical for deer, antelope, and elk • Migration corridors for elk. <p>A lease may be issued if, after consultation with the State, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.</p>

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		<p>A large portion of the coal planning area is critical habitat for mule deer, elk, antelope, GRSG, and sharp-tailed grouse. Colorado Division of Wildlife (now CPW) provided maps showing these severe winter ranges, concentration areas, migration routes, and production areas, which are essential to the continued maintenance of these populations. Two townships, T. 8 N., R. 90 and 91 W., are particularly important to mule deer and elk. The Colorado Division of Wildlife (now CPW) has recommended that no more than 10 percent of these townships be leased at one time. Currently, 6,420 acres (or 14 percent) have been leased by the Colorado State Land Board; therefore, no additions for federal leasing should occur, and the remaining 37,960 acres of federal coal lands should be unsuitable.</p> <p>All remaining adverse impacts on critical habitats for mule deer, elk, antelope, GRSG, and sharp-tailed grouse can be mitigated by requiring that the “Wildlife Habitat Replacement Stipulations” be attached to any future leases.</p> <p>Lands found acceptable in this RMP will be available for further consideration for leasing and/or exchange; however, all lands determined suitable, unsuitable, or unacceptable for further consideration for leasing and/or exchange may be reviewed, and suitability determinations may be modified based on new data during activity planning efforts. Unsuitability criteria apply only to surface coal mining—not underground mining. RMP G-1</p> <p>Roan Plateau RMP: No similar action.</p> <p>White River RMP: Coal leases are issued through the competitive leasing process. Leasing ' subject to the requirements of 43 CFR 3425 – Leasing on Application. Leasing on application involves the submittal of an application, preparation of an environmental analysis document, a public hearing on the application and consultation with the Governor's Office.</p> <p>The unsuitability criteria will be reapplied at the time an application is received. (p2-8)</p> <p>The acreage identified as unsuitable for further coal leasing based on wildlife issues will be modified with updated wildlife information as coal lease applications are received. Reapplication of the coal unsuitability criteria will be completed in coordination with the Colorado Division of Wildlife. (p2-27)</p>

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NTT No.	Program Area	Alternative A (No Action / Current Management)
		<p>Underground mining exemption criteria for new leases: No similar action.</p> <p>Routt National Forest: No similar action.</p>
65	Locatable Minerals	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Little Snake RMP: All public lands are open to mineral entry and development under the General Mining Law of 1872 except the following areas, which will be recommended for withdrawal from mineral location:</p> <ul style="list-style-type: none"> • Fly Creek SRMA • Serviceberry SRMA • Little Yampa Canyon SRMA • Existing WSAs • All ACECs • Emerald Mountain SRMA (has been withdrawn) • Vermillion Basin <p>Roan Plateau RMP: Allow mineral exploration and development activities. All lands would be available for mining claim location.</p> <p>White River RMP: BLM lands not withdrawn or segregated from mineral entry under the General Mining Law of 1872 are open to mining claim location. (p2-8).</p> <p>Several withdrawals and reserves exist that limit the availability of lands for entry. Of the approximate 1,648,770 acres that could be available for location, 997,450 acres are currently withdrawn or unavailable to some extent. In the current RMP, the coal withdrawal of 1910, closed 366,570 acres to nonmetalliferous minerals only, as does 5,480 acres of Federal Water Reserves, and the oil shale withdrawal closed 625,400 acres to all mining claim location. If the three WSAs that were recommended to be carried forward are designated as wilderness, the Wilderness Act will withdraw those areas from location. This will add 41,250 acres to the lands that are unavailable for location. (p. 2-9).</p>

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		<p>Routt National Forest: Mineral and Energy – Locatable Minerals (p. 1-5) Standards For other classified lands not withdrawn from operations under the general mining laws (research natural areas, national recreation areas, special interest areas such as scenic and geologic, national historical sites, and scenic and recreation segments of wild and scenic rivers):</p> <ol style="list-style-type: none"> 1. Check the status of classified lands, with respect to withdrawal, before an operating plan is approved. 2. Provide for reasonable protection of the purposes for which the lands were classified. Reclaim disturbed lands to a condition suitable for the purposes for which the lands were classified. 3. Pursue withdrawals where required.
66	Locatable Minerals	<p>Regulatory Requirement: CFR 3809.100</p> <p>Routt National Forest: No similar action.</p>
67	Locatable Minerals	<p>Grand Junction RMP, Kremmling RMP, Little Snake RMP, Routt National Forest: No similar action.</p> <p>Colorado River RMP: Allowable Use: STIPULATION GS-TL-3: <i>GRSG Winter and Nesting Habitat.</i> Prohibit surface occupancy and surface-disturbing activities during certain timeframes in grouse crucial winter habitat and nesting habitat (includes GRSG). GRSG nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centimeters (approximately 12 and 40 inches) in height and a mean canopy cover between 15 and 40 percent within a 2-mile radius of an active lek. Winter habitat: December 16 to March 15. Nesting habitat: March 1 to June 30.</p> <p>Roan Plateau RMP: Goal: Prevent the need for listing of proposed, candidate, and sensitive species under the ESA and improve the condition of special status species and its habitats to a point where their special status recognition is no longer warranted. Promote recovery of special status species plants that may become listed.</p> <p>Objective: Manage listed, proposed, or candidate threatened or endangered species to comply with the provisions of the ESA and promote their recovery. Manage BLM sensitive and significant plant communities consistent with the Colorado Standards for Public Land Health and with BLM policy on Special Status Species Management (BLM Manual 6840).</p>

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		White River RMP: All surface-disturbing activity associated with a mining claim will be subject to the appropriate stipulations identified in Appendix A (of the White River RMP) and the COAs contained in Appendix B (of the White River RMP). (p2-9).
68	Locatable Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: The range of alternatives is articulated in the specific PDF sections. Routt National Forest: PDFs are not included in Current Management. All PDF listed in Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features, are required for all action alternatives.
69	Nonenergy Leasable Minerals	Colorado River RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action. Grand Junction RMP: No PHMA is Open to nonenergy leasable mineral leasing.
70	Nonenergy Leasable Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP: The range of alternatives is articulated in the specific PDF sections. Routt National Forest: PDFs are not included in Current Management. All PDF listed in Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features, are required for all action alternatives.
71	Salable Minerals	Colorado River RMP, Kremmling RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action. Colorado River RMP: Disposal of salable minerals/mineral materials on BLM lands would be regulated under 43 CFR 3600 and subject to the stipulations for fluid minerals. Grand Junction RMP: Allowable Use: Close 274,300 acres to mineral material disposal (Figure 2-58, Appendix A [of the Grand Junction RMP]): <ul style="list-style-type: none"> • Badger Wash hydrologic research area • Grand Junction municipal watershed • Jerry Creek Reservoirs

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		<ul style="list-style-type: none"> • Baxter/Douglas soil slump hazard area • Plateau Creek soil slump hazard area • Elk calving area • UnawEEP Seep • Pyramid Rock • Little Book Cliffs Wild Horse Range • Cultural sites • Recreation sites and VRM Class II areas • Areas recommended for wilderness designation • Utility corridors. <p>Little Snake RMP: RMP-40 “All public lands are open to mineral material development (1,680,820 acres) except the following areas, which will be closed to mineral material sales (257,080 acres):</p> <ul style="list-style-type: none"> • WSAs • Vermillion Basin • Cedar Mountain SRMA • Irish Canyon ACEC • Dinosaur North area (outside the WSA) • Lookout Mountain area • Limestone Ridge area • Little Yampa Canyon SRMA Zone I • Cold Spring Mountain area (outside the WSA) <p>New mineral material sales within fragile soil and water areas will be subject to the performance objectives described under Soil Resources (Section 2.2 [of the Little Snake RMP]).</p>
72	Salable Minerals	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.

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		<p>White River RMP: All disturbed sites shall be promptly reclaimed to the satisfaction of the Area Manager.</p> <p>Reclamation should be implemented concurrent with construction and site operations to the fullest extent possible. Final reclamation actions shall be initiated within 6 months of the termination of operations unless otherwise approved in writing by the Authorized Officer.</p> <p>The goal for rehabilitation of any disturbed area shall be the permanent restoration of original site conditions and productive capability. (COAs pB-17).</p>
73	Split Estate Mineral	<p>Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Colorado River RMP: Allowable Use: STIPULATION GS-NSO-12: <i>Threatened or Endangered Species</i>. Prohibit surface occupancy and surface-disturbing activities on habitat areas for those species listed by the federal or state government as endangered or threatened and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species.</p> <p>STIPULATION GS-TL-3: <i>GRSG Winter and Nesting Habitat</i>. Prohibit surface occupancy and surface-disturbing activities during certain timeframes in grouse crucial winter habitat and nesting habitat (includes GRSG). GRSG nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centimeters (approximately 12 and 40 inches) in height and a mean canopy cover between 15 and 40 percent within a 2-mile radius of an active lek. Winter habitat: December 16 to March 15. Nesting habitat: March 1 to June 30.</p> <p>White River RMP: Where applicable, these stipulations would be applied to all surface-disturbing activities associated with land use authorizations, permits, and leases issued on BLM administered lands. Private landowner concerns and objectives will be considered before enforcing a stipulation on split estate lands. (pA-1).</p>
74	Split Estate Mineral	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.</p>

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Fuels Management		Objective: No similar objective.
75	Fuels Management	<p>Grand Junction RMP, Kremmling RMP, Routt National Forest: No similar action.</p> <p>Colorado River RMP: Use appropriate integrated vegetation treatments (e.g., chemical, mechanical, prescribed fire and natural fire managed for resource benefits, and biological) for the control of invasive/noxious weeds. Use of herbicides would be consistent with current local, state, and BLM policy.</p> <p>Little Snake RMP: RMP-15 and 23, Goal B – Sustain the integrity of the sagebrush biome to support viable populations of GRSG and other sagebrush obligate species.</p> <p>Roan Plateau RMP: Revegetate with native plant species similar in mix and kind to the appropriate reference plant community. The type of cultural material (seeding or planting) used will depend on the attributes of the site and revegetation goals. As needed, utilize a combination of seeding grasses and forbs, and containerized nursery stock shrub and tree planting.</p> <p>Eradicate or control State of Colorado listed noxious weeds and other undesirable plant species within reclaimed areas and, as necessary, adjacent areas.</p> <p>White River RMP: Restore, maintain, or enhance habitat conditions and features conducive to the maintenance or expansion of native GRSG populations. (p2-31)</p> <p>Habitat treatment and management guidelines will be developed during the NEPA planning and analysis of individual project proposals. Guidelines will be integrated within approved project design. GRSG habitat treatment and management objectives will be incorporated into the planning and development of future activity plans. (p2-32)</p> <p>Vegetation manipulations would be irregular in shape, consisting of patches, strips, and fingers that maximize edge effect. (COA, pB-15).</p>

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		<p>Surface occupation and long-term conversion or adverse modification of the following GRSG habitats will be avoided:</p> <ol style="list-style-type: none"> 1. sagebrush stands with ≤ 50 percent canopy and ≤ 30" in height, and ≤ 2 miles from a lek; 2. sagebrush stands with ≤ 30 percent canopy and ≤ 30" in height > 2 miles from a lek on occupied summer ranges; 3. any sagebrush stand on slopes ≤ 20 percent in defined winter concentration areas; and 4. sagebrush stands on slopes ≤ 20 percent showing evidence of winter use. (p. 2-31). <p>Routt National Forest: No similar action.</p>
76	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: All surface-disturbing activities will avoid nesting and early brood-rearing habitat with the 4-mile radius of a lek between March 1 and June 30. Section 2.6/RMP-24, Appendix B-13 (of the Little Snake RMP).</p> <p>White River RMP: COAs will be attached, as appropriate, to help mitigate the site-specific impacts of an authorization. (p 1-2)</p> <p>GRSG Nesting Habitat. This area encompasses suitable GRSG nesting habitat associated with individual leks. This stipulation will not take effect until direct and indirect impacts to suitable nesting cover exceeds 10 percent of the habitat available within 2 miles of identified leks. Further development, after this threshold has been exceeded, will not be allowed from April 15 through July 7. (Development can occur until 10 percent of the habitat associated with a lek is impacted, from then on, additional activity can occur from July 8 through April 14.) (pA-18).</p> <p>GRSG Winter Concentration Areas. This area encompasses sagebrush habitats that are occupied by wintering concentrations of GRSG, or represent the only habitats that remain available for use during periods of heavy snowpack. No development activity will be allowed between December 16 and March 15. The Colorado Division of Wildlife (now CPW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. (pA-21)</p>

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		<p>Routt National Forest: Threatened, Endangered, Sensitive Species, and Wildlife Standards (p. I-14).</p> <p>4. In areas where tall dense cover is desired for ground-nesting birds, retain adequate residual cover from previous growing seasons since some species begin nesting in April and May before spring growth.</p> <p>5. Some bird species prefer to nest in undisturbed cover. In areas where these species are a primary consideration, manage livestock grazing to avoid adverse impacts to nesting habitat.</p> <p>8. Manage activities to avoid disturbance to sensitive species which would result in a trend toward federal listing or loss of population viability. The protection will vary depending on the species, potential for disturbance, topography, location of important habitat components, and other pertinent factors. Give special attention during breeding, young rearing, and other times which are critical to survival of both flora and fauna.</p> <p>9. Avoid disturbing threatened, endangered, and proposed species (both flora and fauna) during breeding, young rearing, or at other times critical to survival by closing areas to activities. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat.</p>
77	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: GRSG Winter Concentration Areas. This area encompasses sagebrush habitats that are occupied by wintering concentrations of GRSG, or represent the only habitats that remain available for use during periods of heavy snowpack. No development activity will be allowed between December 16 and March 15. The Colorado Division of Wildlife (now CPW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. (p. A-21).</p>
78	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Little Snake RMP: All surface-disturbing activities will avoid nesting and early brood-rearing habitat with the 4-mile radius of a lek between March 1 and June 30. Section 2.6/RMP-24, Appendix B-13 (of the Little Snake RMP).</p>

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		<p>White River RMP: COAs will be attached, as appropriate, to help mitigate the site-specific impacts of an authorization. (p1-2)</p> <p>GRSG Nesting Habitat. This area encompasses suitable GRSG nesting habitat associated with individual leks. This stipulation will not take effect until direct and indirect impacts to suitable nesting cover exceeds 10 percent of the habitat available within 2 miles of identified leks. Further development, after this threshold has been exceeded, will not be allowed from April 15 through July 7. (Development can occur until 10 percent of the habitat associated with a lek is impacted, from then on, additional activity can occur from July 8 through April 14.) (pA-18).</p> <p>GRSG Winter Concentration Areas. This area encompasses sagebrush habitats that are occupied by wintering concentrations of GRSG, or represent the only habitats that remain available for use during periods of heavy snowpack. No development activity will be allowed between December 16 and March 15. The Colorado Division of Wildlife (now CPW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. (pA-21)</p> <p>Routt National Forest: Threatened, Endangered, Sensitive Species, and Wildlife Standards (p. 1-14).</p> <p>4. In areas where tall dense cover is desired for ground-nesting birds, retain adequate residual cover from previous growing seasons since some species begin nesting in April and May before spring growth.</p> <p>5. Some bird species prefer to nest in undisturbed cover. In areas where these species are a primary consideration, manage livestock grazing to avoid adverse impacts to nesting habitat.</p> <p>8. Manage activities to avoid disturbance to sensitive species which would result in a trend toward federal listing or loss of population viability. The protection will vary depending on the species, potential for disturbance, topography, location of important habitat components, and other pertinent factors. Give special attention during breeding, young rearing, and other times which are critical to survival of both flora and fauna.</p> <p>9. Avoid disturbing threatened, endangered, and proposed species (both flora and fauna) during breeding, young rearing, or at other times critical to survival by closing areas to activities. Exceptions may occur when individuals are</p>

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		adapted to human activity, or the activities are not considered a threat.
79	Fuels Management	<p>Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Colorado River RMP: Hold project proponents, including livestock operators, ROWs holders, and other permittees deemed necessary by the Authorized Officer, responsible for monitoring and controlling noxious weeds that result from any new facilities, improvements or other surface disturbances authorized on BLM land (e.g., roads, communication sites, pipelines, stock ponds, and fences).</p> <p>Little Snake RMP: Monitor, prioritize, and treat noxious weeds. Section 2.4/RMP-16.</p> <p>Roan Plateau RMP: For activities creating a surface disturbance larger than 1 acre, require a weed management plan which would emphasize and detail prevention, inventory, detection, eradication, and monitoring efforts, corrective measures, and other weed control actions.</p> <ul style="list-style-type: none"> • Require weed free seed for reclamation activities. • Require the use of weed free hay and feed for livestock. • Require weed control actions for all disturbances, including those less than 1 acre in size. • Require prompt reclamation of all disturbed areas with native species. <p>White River RMP: In accordance with the White River Resource Area Noxious Weed Management Plan, manage noxious weeds with particular emphasis on a coordinated, cooperative approach. Implement practices that prevent or reduce the extent and occurrence of noxious and problem weeds throughout the Resource Area. (p2-14)</p> <p>Three contiguous areas encompassing 497,900 acres will be designated as weed free zones upon approval of this document (see Map 2-8 [of the White River RMP]). Weed management will be emphasized in these areas through cooperation with private land owners and state and county governments. The areas will, be identified on the ground with signs. The following special conditions will be attached to use authorizations approved within these areas:</p> <ol style="list-style-type: none"> 1. All construction equipment and vehicles will be cleaned prior to entering BLM Weed Free Zones. 2. All hay, straw, unprocessed feed, and seed used in BLM Weed Free Zones must be certified free of specified noxious weeds listed in Colorado Weed Seed Free Forage Certification standards.

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		<p>3. All authorized users of disturbed areas will be required to inventory for noxious weeds in both the spring and fall. (p2-14).</p> <p>Routt National Forest: Undesirable Species (p. 1-16) <u>Standards</u></p> <ol style="list-style-type: none"> 1. Control nonnative and noxious plants throughout the Forest, with priority given to designated wilderness. 2. Use only certified noxious weed free hay, seed, straw, or other materials for feed or revegetation projects on the Forest. <p><u>Guidelines</u></p> <ol style="list-style-type: none"> 1. Develop a noxious weed and pest management program that addresses awareness, prevention, inventory, planning, treatment, monitoring, reporting, and management objectives. Priorities for implementing a program for undesirable plants include: <ol style="list-style-type: none"> a. New invaders. b. New areas. c. Spreading or expanding infestations. d. Existing infestations.
80	Fuels Management	<p>Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Colorado River RMP: Prohibit livestock grazing on all seeded areas for two growing seasons.</p> <p>White River RMP: Areas proposed for vegetation manipulation would not be grazed by livestock until understory vegetation becomes well established and is able to support livestock grazing. A minimum of two complete growing seasons of rest from livestock grazing would be required to help ensure desirable vegetation regains vigor. (COA, pB-15).</p>
81	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Little Snake RMP: Use reclamation seed mixes, consisting of native bunchgrasses, forbs, and subspecies of big</p>

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		<p>sagebrush, that are appropriate for the disturbed site and its potential. Section 2.6/RMP-24 Goal E: Maintain or improve the integrity of streams and their associated riparian values. Section 2.4/RMP-15 (of the Little Snake RMP).</p> <p>Roan Plateau RMP: Revegetate with native plant species similar in mix and kind to the appropriate reference plant community. The type of cultural material (seeding or planting) used will depend on the attributes of the site and revegetation goals. As needed, utilize a combination of seeding grasses and forbs, and containerized nursery stock shrub and tree planting.</p> <p>White River RMP: Only native plant species will be used for reseeding of disturbed areas within the Blue Mountain/Moosehead geographic reference area (G-1), within WSAs, and within designated ACECs. Native plant species will be encouraged in the remainder of the resource area for reseeding disturbed areas that are not threatened by establishment of exotic or noxious plant species. Naturalized plant species will be allowed for reseeding on "at risk" and "unhealthy" rangelands and grazeable woodlands. (p2-11).</p> <p>Routt National Forest: Use genetically local (at the subsection level), native plant species for revegetation efforts where technically and economically feasible. Use weed-free seed mixtures. While native perennials are becoming established, nonnative annuals or sterile perennial species may be used to prevent soil erosion (Biological Diversity Standard p. 1-8).</p>
82	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Areas proposed for vegetation manipulation would not be grazed by livestock until understory vegetation becomes well established and is able to support livestock grazing. A minimum of two complete growing seasons of rest from livestock grazing would be required to help ensure desirable vegetation regains vigor. (COA, pB-15).</p>
83	Fuels Management	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: Section 2.8/RMP-27; Goal A: Give first priority to protection of life or property. Identify and</p>

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84	Fuels Management	<p>reduce hazardous fuels with an emphasis on urban-interface areas.</p> <p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP: No similar action.</p> <p>Little Snake RMP: Work with the Northwest Colorado Sage-Grouse Working Group to identify, maintain, and treat vegetation. Creation of functional blocks of sagebrush as GRSG habitat will be emphasized. Section 2.4/RMP-16. Goal B: Sustain the integrity of the sagebrush biome in order to support viable populations of GRSG. Section 2.4/RMP-15 (of the Little Snake RMP).</p> <p>White River RMP: Suitable GRSG habitats (see Map 2-16 [of the White River RMP]) will be enhanced by manipulating suboptimal sagebrush stands, or converting stands with undesirable composition to suitable cover types. (p2-31)</p> <p>Routt National Forest: Threatened, Endangered, Sensitive Species, and Wildlife Standards (p. 1-14).</p> <p>4. In areas where tall dense cover is desired for ground-nesting birds, retain adequate residual cover from previous growing seasons since some species begin nesting in April and May before spring growth.</p> <p>5. Some bird species prefer to nest in undisturbed cover. In areas where these species are a primary consideration, manage livestock grazing to avoid adverse impacts to nesting habitat.</p>
Fire Operations		Objective: No similar objective.
85	Fire Operations	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Develop suppression priorities; identify management restrictions, and determining appropriate fire suppression strategies.</p> <p>Utilize prescribed fire, both natural and management ignited, to protect, maintain and enhance ecosystems, economic values, and multiple use resource management programs.</p>

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		No wildfire situation will require the unnecessary exposure of firefighters and equipment to dangerous situations. (p. 2-55).
86	Fire Operations	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Develop suppression priorities; identify management restrictions, and determining appropriate fire suppression strategies.</p> <p>Utilize prescribed fire, both natural and management ignited, to protect, maintain and enhance ecosystems, economic values, and multiple use resource management programs.</p> <p>No wildfire situation will require the unnecessary exposure of firefighters and equipment to dangerous situations. (p. 2-55).</p>
Emergency Stabilization and Rehabilitation (ESR)		Objective: No similar objective.
87	ESR	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Little Snake RMP: Use reclamation seed mixes, consisting of native bunchgrasses, forbs, and subspecies of big sagebrush, that are appropriate for the disturbed site and its potential. Section 2.6/RMP-24 (of the Little Snake RMP).</p> <p>Roan Plateau RMP: Revegetate with native plant species similar in mix and kind to the appropriate reference plant community. The type of cultural material (seeding or planting) used will depend on the attributes of the site and revegetation goals. As needed, utilize a combination of seeding grasses and forbs, and containerized nursery stock shrub and tree planting.</p> <p>White River RMP: Adapted forms of succulent forbs should be included in seed mixes applied to surface disturbances on GRSB brood ranges. Seed mixes will be subject to reseeding conditions established for each GRA and identified in Appendix B (of the White River RMP).</p>

Table 2.7
Description of Alternative A

(PHMA) = Priority Habitat Management Areas, (GHMA) = General Habitat Management Areas, (LCHMA) = Linkage/Connectivity Habitat Management Areas, (ADH) = All Designated Habitat

NTT No.	Program Area	Alternative A (No Action / Current Management)
		<p>Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort will not exceed 20 percent of converted acreage at mature canopy densities of ≤ 15 percent. (p2-32).</p> <p>Routt National Forest: Use genetically local (at the subsection level), native plant species for revegetation efforts where technically and economically feasible. Use weed-free seed mixtures. While native perennials are becoming established, nonnative annuals or sterile perennial species may be used to prevent soil erosion (Biological Diversity Standard, p. 1-8).</p>
88	ESR	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Areas proposed for vegetation manipulation would not be grazed by livestock until understory vegetation becomes well established and is able to support livestock grazing. A minimum of two complete growing seasons of rest from livestock grazing would be required to help ensure desirable vegetation regains vigor. (COA, pB-15).</p>
89	ESR	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.</p>
Habitat Restoration		Objective: No similar objective.
90	Habitat Restoration	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: Goal C: Identify and initiate restoration and rehabilitation of sagebrush habitat while maintaining a mosaic of canopy cover and seral stages. Section 2.4/RMP-15 (of the Little Snake RMP).</p> <p>White River RMP: Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort will not exceed 20 percent of converted acreage at mature canopy densities of ≤ 15 percent. (p2-32).</p>

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91	Habitat Restoration	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, White River RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: Work with the Northwest Colorado Sage-Grouse Working Group to identify, maintain, and treat vegetation. Creation of functional blocks of sagebrush as GRSG habitat will be emphasized. Section 2.4/RMP-16 (of the Little Snake RMP).</p>
92	Habitat Restoration	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Routt National Forest: No similar action.</p> <p>Little Snake RMP: Use reclamation seed mixes, consisting of native bunchgrasses, forbs, and subspecies of big sagebrush, that are appropriate for the disturbed site and its potential. Section 2.6/RMP-24 (of the Little Snake RMP).</p> <p>Roan Plateau RMP: Revegetate with native plant species similar in mix and kind to the appropriate reference plant community. The type of cultural material (seeding or planting) used will depend on the attributes of the site and revegetation goals. As needed, utilize a combination of seeding grasses and forbs, and containerized nursery stock shrub and tree planting.</p> <p>White River RMP: Adapted forms of succulent forbs should be included in seed mixes applied to surface disturbances on GRSG brood ranges. Seed mixes will be subject to reseeding conditions established for each GRA and identified in Appendix B (of the White River RMP).</p> <p>Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort will not exceed 20 percent of converted acreage at mature canopy densities of ≤ 15 percent. (p2-32).</p>
93	Habitat Restoration	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Areas proposed for vegetation manipulation would not be grazed by livestock until understory vegetation becomes well established and is able to support livestock grazing. A minimum of two complete growing seasons of rest from livestock grazing would be required to help ensure desirable vegetation regains vigor. (COA, pB-</p>

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NTT No.	Program Area	Alternative A (No Action / Current Management)
		15).
94	Habitat Restoration	Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, White River RMP, Routt National Forest: No similar action.
95	Habitat Restoration	<p>Colorado River RMP, Grand Junction RMP, Kremmling RMP, Little Snake RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>White River RMP: Vegetation treatment widths should generally not exceed 200 feet. Treatment areas should be interspersed with equal or larger intervals of suitable cover. Cumulative adverse manipulations will not be allowed to exceed 10 percent of suitable nest habitat within 2 miles of a lek. (p. 2-32)</p> <p>Vegetation manipulations would be irregular in shape, consisting of patches, strips, and fingers that maximize edge effect. (COA, p. B-15).</p>
96	Habitat Restoration	<p>Colorado River Valley RMP, Kremmling RMP, Roan Plateau RMP, Routt National Forest: No similar action.</p> <p>Grand Junction RMP: Maintain patch size of low-elevation sage-brush habitat to restore habitat connectivity and function for sage-brush obligate species.</p> <p>Little Snake RMP: Same as Alternative A.</p> <p>White River RMP: Comparable or superior varieties of sagebrush should be established within occupied GRSG ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort would not exceed 20 percent of converted acreage at mature canopy densities of <15 percent. (Table 2.6, #21).</p>
97	Habitat Restoration	<p>Colorado River Valley RMP, Grand Junction RMP, Kremmling RMP: No similar action.</p> <p>Little Snake RMP: Same as Alternative A.</p> <p>White River RMP: Comparable or superior varieties of sagebrush should be established within occupied GRSG</p>

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Description of Alternative A

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		<p>ranges in those instances where sagebrush conversion or removal has exceeded 500 acres. The extent and level of reestablishment effort would not exceed 20 percent of converted acreage at mature canopy densities of <15 percent. (Table 2.6, #21).</p> <p>Roan Plateau RMP: Rehabilitate areas plant communities that are not meeting desired range of conditions due to dominance by annual or weedy species, or invasive juniper. Seed mixes would emphasize forage-producing perennials that support livestock production and other commodity values.</p> <p>Routt National Forest: In PHA and within 4 miles of an active lek – Reestablish appropriate sagebrush species/subspecies and important understory plants relative to site potential. Identify priority plant species and collect seed of understory plants and sagebrush subspecies important to GRSG.</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
Objective: Maintain and enhance populations and distribution of GRSG by protecting and improving sagebrush habitats and ecosystems that sustain GRSG populations.						
Travel and Transportation		Objective: Manage travel and transportation to 1) reduce mortality from vehicle collisions, 2) limit change in GRSG behavior, 3) avoid, minimize, and compensate for habitat fragmentation, 4) limit the spread of noxious weeds, and 5) limit disruptive activity associated with human access.				
1	Travel	(PHMA) Limit OHV travel to existing roads, primitive roads, and trails at a minimum.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B. <u>Special Zone Provision:</u> Colorado MZ 13 – Manage the Wolford Mountain open OHV area.	Same as Alternative B.
2	Travel	(PHMA) Travel management should evaluate the need for permanent or seasonal road or area closures.	Same as Alternative B.	(ADH) Identify seasonal closure areas for GRSG.	(PHMA) Evaluate and consider permanent or seasonal road or area closures as needed to address a current threat.	Same as Alt. A. (ADH) Manage motorized use by seasonal use restriction if 'use causes unacceptable wildlife conflict or habitat degradation' (Forestwide Infrastructure – Travelways Guideline 3b, p. 1-23).
3	Travel	(PHMA) Complete activity level travel plans within 5 years of the ROD. During activity level planning, where appropriate, designate routes with current administrative/agency purpose or need to administrative access only.	Same as Alternative B.	Same as Alternative B.	(PHMA) Complete activity level travel plans as soon as possible, subject to funding. During activity level planning, where appropriate, designate routes with current administrative/agency purpose or need to administrative access only.	Activity level plans are already completed in ADH.
4	Travel	(PHMA) Limit route construction to realignments of existing designated routes if that realignment has a minimal	(ADH) Limit route construction to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat,	(PHMA) Until completion of the relevant field office travel management plans, limit route construction to routes that will not	(PHMA) Complete activity level travel plans as soon as possible, subject to funding. Limit route construction to routes that will not adversely	GRSG-RT-ST-001-Standard – In PHMA and GHMA, do not construct or allow new road or trail construction (does not apply to realignments for

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety	eliminates the need to construct a new road, or is necessary for motorist safety. Mitigate any impacts with methods that have been demonstrated to be effective to offset the loss of GRSG habitat.	adversely affect GRSG populations due to habitat loss or disruptive activities.	affect GRSG populations due to habitat loss or disruptive activities.	resource protection) except when necessary for administrative access, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and compensate for impacts. GRSG-RT-GL-001-Guideline – In PHMA, new roads and road realignments should be designed and administered to reduce collisions with GRSG. GRSG-RT-GL-002-Guideline – In PHMA, road construction within riparian areas and mesic meadows should be restricted. If not possible to avoid construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
5	Travel	(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 in PHMA. If that disturbance exceeds 3 percent for that area, then evaluate and implement additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.	Same as Alternative B, using a 4-mile buffer from leks to determine road route.	<p>(PHMA) Construct new roads to the appropriate Gold Book standard and add the surface disturbance to the total disturbance in PHMA. If anthropogenic disturbance as defined in Appendix E, Methodology for Calculating Disturbance Caps, exceeds 5 percent for that Colorado MZ, then make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.</p> <p>Disturbance Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado MZ are healthy and stable at objective levels or increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases,</p>	<p>(PHMA) Use existing roads or realignments whenever possible. If it is necessary to build a new road, and the use of existing roads would cause adverse impacts to GRSG, construct new roads to the appropriate minimum Gold Book standard and add the surface disturbance to the total disturbance in PHMA if it meets the criteria in Appendix H, Guidelines for Implementation.</p> <p>Construct no new roads if the biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) is over the 3 percent disturbance cap, unless there is an immediate health and safety need, or to support valid existing rights that cannot be avoided. Evaluate and implement additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.</p>	<p>GRSG-RT-ST-001-Standard (see above)</p> <p>GRSG-RT-GL-001-Guideline (see above)</p> <p>GRSG-RT-GL-002-Guideline (see above)</p> <p>GRSG-RT-ST-003-Standard – In PHMA, do not allow public access on temporary energy development roads, unless consistent with all other terms and conditions included in the LUP.</p>

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				this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.		
6	Travel	(PHMA) Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on GRSG habitat, is necessary for motorist safety, or eliminates the need to construct a new road.	(ADH) Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless it is necessary for motorist safety, or eliminates the need to construct a new road. Any impacts shall be mitigated with methods that have been demonstrated to be effective to offset the loss of GRSG habitat.	(PHMA) Allow upgrades to existing routes after documenting that the upgrade will not adversely affect GRSG populations due to habitat loss or disruptive activities.	Same as Alternative D.	Same as Alternative A - (ADH) The 2012 Motor Vehicle Use Map limits motorized travel to designated roads and motorized trails. Additional Forest Plan Standards include: Negotiate surface management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals; Prohibiting such development is not an alternative (Forestwide Mineral and Energy – Reserved and Outstanding Rights Standard 1, p.1-6). Prohibit motorized use with wheeled vehicles on lands outside designated travel ways unless a forest order indicates that such use is specifically allowed (Forestwide Infrastructure – Travelways Standard 4, p. 1-23).Prohibit motorized access from private land where

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						access for the general public is not available, except by special permit (Forestwide Infrastructure – Travelways Standard 4, p.1-23). Retain existing access rights, where needed, to meet Forest Plan goals and objectives (Forestwide Real Estate-Rights-of-way Standard 1, p.1-25).
7	Travel	(PHMA) Conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in WSAs and within lands with wilderness characteristics that have been selected for protection in previous LUPs.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	GRSG-RT-GL-003-Guideline – In PHMA and GHMA, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 2.3).
8	Travel	(PHMA) When reseeding roads, primitive roads and trails, use appropriate seed mixes and consider the use of transplanted sagebrush.	(ADH) When reseeding closed roads, primitive roads and trails, use appropriate native seed mixes and require the use of transplanted sagebrush.	Same as Alternative B.	Same as Alternative B.	Same as Alternative A. (ADH) Use genetically local (at the subsection level), native plant species for revegetation efforts where technically and economically feasible; use weed-free seed mixtures; while native perennials are becoming established, nonnative annuals

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						or sterile perennial species may be used to prevent soil erosion (Forestwide Biological Diversity Standard 3, p.1-8).
--	Travel	No similar action.	(ADH) Prohibit new road construction within 4 miles of active GRSG leks, and avoid new road construction in occupied GRSG habitat.	No similar action.	No similar action.	GRSG-RT-ST-002-Standard – Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to April 30) from 6 pm to 9 am.
Recreation		Objective: Manage Recreation to avoid activities that 1) disrupt GRSG, 2) fragment GRSG habitat, or 3) spread noxious weeds.				
9	Recreation	(PHMA) Only allow BLM SRPs and Forest Service Recreation SUAs in PHMA that have neutral or beneficial effects to PHMA.	Same as Alternative B.	(PHMA) Allow SRPs that will not adversely affect GRSG populations due to habitat loss or disruptive activities.	(PHMA) Do not allow SRPs/SUAs with the potential to adversely affect GRSG or GRSG habitat.	GRSG-GEN-ST-001-Standard – In PHMA, do not permit lands or recreation special use authorizations unless all existing discrete anthropogenic disturbances cover less than 3 percent of the total GRSG habitat within the biologically significant unit and the proposed project analysis areas, regardless of ownership (Appendix E, Methodology for Calculating Disturbance Caps). GRSG-R-ST-001-Standard – In PHMA and GHMA, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (more than 5

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						<p>years) negative impacts on GRSG or its habitats.</p> <p>GRSG-R-GL-001-Guideline – In PHMA and GHMA, terms and conditions that protect and/or restore GRSG habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore GRSG habitat.</p> <p>GRSG-R-GL-002-Guideline – In PHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, and campgrounds), including special use authorizations for facilities and activities, should not be approved unless the authorization reduces impacts to GRSG and/or its habitats or the development is required for visitor safety.</p>
--	Recreation	No similar action.	(ADH) Seasonally prohibit camping and other non-OHV recreation within 4 miles of active GRSG leks.	No similar action.	No similar action.	No similar action.

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Lands and Realty Management		Objective: Manage the Lands and Realty program to avoid, minimize, and compensate for the loss of habitat and habitat connectivity through the authorizations of ROWs, land tenure adjustments, proposed land withdrawals, agreements with partners, and incentive programs.				
Rights-of-Way (ROW)						
10	Lands/Realty	(PHMA) Manage PHMA as exclusion areas for new BLM ROW or Forest Service SUA permits.	(ADH) Occupied GRSG habitat areas shall be exclusion areas for new ROWs permits.	<p>(PHMA) Manage PHMA as avoidance areas for new ROW permits.</p> <p>(PHMA) Manage PHMA as exclusion areas for large transmission lines (greater than 230 kilovolts, per guidance in BLM Instruction Memorandum 2013-118, Revised Implementation Guidance for the Interagency Transmission Memorandum of Understanding (BLM 2013b).</p> <p>Manage 68,000 acres as avoidance areas for large transmission lines (greater than 230 kilovolts).</p> <p>GRSG PHMA ROW Avoidance, Alternative D. Areas identified as avoidance areas for new ROWs and for ROWs for large transmission lines (greater than 230 kilovolts) would be required to document that they would not adversely affect GRSG</p>	<p>Manage areas within PHMA as avoidance areas for BLM ROW permits or Forest Service SUA permits. (See Special Stipulations applicable to GRSG PHMA ROW Avoidance, Proposed LUPA.)</p> <p>Manage areas within GHMA as avoidance areas for BLM ROW permits or Forest Service SUA permits. (See Special Stipulations applicable to GRSG PHMA ROW Avoidance, Proposed LUPA.)</p> <p>No new roads or above-ground structures would be authorized within 1 mile of an active lek.</p> <p>Above-ground structures are defined as structures that are located on or above the surface of the ground, including but not limited to: roads, fences, communication towers, and/or any structure that would provide perches.</p>	<p>GRSG-GEN-ST-001-Standard – In PHMA, do not permit lands or recreation special use authorizations unless all existing discrete anthropogenic disturbances cover less than 3 percent of the total GRSG habitat within the biologically significant unit and the proposed project analysis areas, regardless of ownership (Appendix E, Methodology for Calculating Disturbance Caps).</p> <p>GRSG-GEN-ST-002-Standard – In PHMA and GHMA, only allow new authorized land uses if the residual impacts to GRSG or its habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, which will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in</p>

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				<p>populations due to habitat loss or disruptive activities. Any new projects within PHMA would be subject to the 5 percent disturbance cap as described in Appendix E, Methodology for Calculating Disturbance Caps. (Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>	<p>Above ground structures would only be authorized if:</p> <ol style="list-style-type: none"> 1) It is consistent with the overall objective of the RMP Amendment; 2) The effect on GRSG populations or habitat is nominal or incidental; 3) Allowing the exception prevents implementation of an alternative more detrimental to GRSG or similar environmental concern, and; 4) Rigid adherence to the restriction would be the only reason for denying the action. <p>PHMA and GHMA 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 excepted projects, must comply with the conservation measures outlined in this Proposed LUPA, including the RDFs and avoidance criteria presented in this document. The BLM is currently processing</p>	<p>addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix X).</p> <p>GRSG-GEN-GL-001-Guideline – During lekking (March 1 to April 30) anthropogenic disturbances, including noise at 10 decibels above ambient (not to exceed 20 to 24 decibels) to lekking birds should be avoided from 6 pm to 9 am at a distance of 3.1 miles from the perimeter of an occupied lek.</p> <p>GRSG-GEN-GL-002-Guideline – During breeding and nesting (March 1 to June 15), anthropogenic disturbances to nesting birds should be avoided.</p> <p>GRSG-GEN-GL-003-Guideline – When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired habitat conditions displayed in Table 2.3.</p> <p>GRSG-GEN-GL-004-</p>

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					<p>applications for the TransWest and Energy Gateway South Transmission Line projects and the NEPA review for these projects is well underway. The BLM is analyzing GRSG mitigation measures through these project's NEPA review processes.</p> <p>GRSG PHMA ROW Avoidance, Proposed LUPA. ROWs/SUAs may be issued after documenting that the ROWs/SUAs would not adversely affect GRSG populations based on the following criteria:</p> <ul style="list-style-type: none"> • Location of proposed activities in relation to critical GRSG habitat areas as identified by factors, including but not limited to, average male lek attendance and/or important seasonal habitat. • An evaluation of the potential threats from proposed activities that may affect the local population as compared to benefits that could be accomplished through 	<p>Guideline – Development of tall structures within 2.0 miles from the perimeter of occupied leks, as determined by local conditions (such as vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities for avian predators or by decreasing the use of an area should be avoided in nesting habitat.</p> <p>GRSG-LR-SUA-ST-001-Standard – In PHMA, restrict issuance of new lands special use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, hydropower, distribution lines, and cellular towers. Exceptions must be limited and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to GRSG will be avoided by the exception.</p> <p>GRSG-LR-SUA-ST-003-Standard – In PHMA and GHMA, do not authorize temporary lands special uses</p>

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					<p>compensatory or off-site mitigation (see Section 2.7.3, Regional Mitigation)</p> <ul style="list-style-type: none"> An evaluation of the proposed activities in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance, and shield nearby habitat from disruptive factors. <p>Any new projects within PHMA would be subject to the 3 percent disturbance cap as described in Appendix E, Methodology for Calculating Disturbance Caps. If the 3 percent disturbance cap is exceeded in PHMA in any biologically significant unit (Colorado population) and proposed project analysis area (Colorado MZ), no new ROW would be authorized in PHMA within that Colorado MZ, unless site-specific analysis documents no impact to GRSG.</p>	<p>(i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., more than 5 years) negative impact on GRSG or its habitats.</p> <p>GRSG-LR-SUA-ST-004-Standard – In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure, guy wire removal, and perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers).</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					GRSG PHMA ROW TL, Proposed LUPA: Prohibit surface occupancy and surface-disturbing activities associated with BLM ROW or Forest Service SUA permits within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15). (See Special Stipulations applicable to GRSG PHMA ROW TL, Proposed LUPA).	
		(PHMA) Within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations: new ROWs or SUAs may be collocated only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs or SUAs.	(ADH) Within designated ROW corridors encumbered by existing ROW authorizations: new ROWs may be collocated only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs.	(PHMA) New ROWs may be collocated within approved ROW corridors that are encumbered by existing ROW authorizations.	Same as Alternative D, except special stipulations described in Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations would apply.	GRSG-LR-SUA-ST-008-Standard – In PHMA and GHMA, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to GRSG or its habitats. When co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. New communication tower sites may be authorized for public safety.

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		<p>(PHMA) Subject to valid existing rights: where new ROWs or SUAs associated with valid existing rights are required, collocate new ROWs or SUAs within existing ROWs or SUAs or where it best minimizes GRSG impacts. 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 in PHMA. If that disturbance exceeds 3 percent for that area, then evaluate and implement additional effective mitigation to offset the resulting loss of GRSG habitat.</p>	<p>(ADH) Subject to valid existing rights: where new ROWs associated with valid existing rights are required, collocate new ROWs within existing ROWs or where it best minimizes GRSG impacts. 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 in PHMA. If that disturbance exceeds 3 percent for that area, then make additional mitigation that has been demonstrated to be effective to offset the resulting loss of GRSG habitat.</p>	<p>(PHMA) Only issue ROWs after documenting that the ROWs will not adversely affect GRSG populations due to habitat loss or disruptive activities (independent of disturbance cap) except where such limitation would make accessing valid existing rights impracticable. Construct new roads to the appropriate Gold Book standard and add the surface disturbance to the total disturbance in PHMA. If anthropogenic disturbance as defined in Appendix E, Methodology for Calculating Disturbance Caps, exceeds 5 percent for that Colorado MZ, then make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.</p> <p>Disturbance Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado MZ are healthy and stable at objective levels or</p>	<p>(PHMA) Only issue ROWs/SUAs after documenting that the ROWs/SUAs will not adversely affect GRSG populations due to habitat loss or disruptive activities (independent of disturbance cap) except where such limitation would make accessing valid existing rights impracticable.</p> <p>Construct new roads to the appropriate Gold Book standard and add the surface disturbance to the total disturbance in PHMA.</p> <p>Any new ROW/SUA authorizations would be subject to the 3 percent disturbance cap, and would be evaluated based on an analysis of the following:</p> <ul style="list-style-type: none"> • Location of proposed activities in relation to critical GRSG habitat areas as identified by factors, including but not limited to, average male lek attendance and/or important seasonal habitat. • An evaluation of the 	<p>GRSG-GEN-ST-001-Standard – In PHMA, do not permit lands or recreation special use authorizations unless all existing discrete anthropogenic disturbances cover less than 3 percent of the total GRSG habitat within the biologically significant unit and the proposed project analysis areas, regardless of ownership (Appendix E, Methodology for Calculating Disturbance Caps).</p> <p>GRSG-LR-SUA-ST-007-Standard – In PHMA and GHMA, if the potential long-term (more than 5 years) impacts of mitigation (e.g., relocation or burying) to GRSG or its habitats are greater than the potential impacts from new lands special use authorizations, do not pursue the mitigation. If mitigation is not feasible or would result in short-term (less than 5 years) or long-term impacts, incorporate additional terms and conditions in the special use authorization for protection of GRSG or its habitats.</p>

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap with additional effective mitigation (i.e., above and beyond the mitigation necessary to ensure that the project remains neutral to GRSG). In many cases, this exception will require project proponents to fund studies necessary to secure the “date-based documentation” requirement.</p>	<p>potential threats from proposed activities that may affect the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see Section 2.7.3, Regional Mitigation)</p> <ul style="list-style-type: none"> An evaluation of the proposed activities in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance, and shield nearby habitat from disruptive factors. <p>GRSG PHMA ROW TL, Proposed LUPA: Prohibit surface occupancy and surface-disturbing activities associated with BLM ROW or Forest Service SUA permits within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15).</p>	<p>GRSG-LR-SUA-ST-008-Standard – In priority and GHMA, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to GRSG or its habitats. When co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. New communication tower sites may be authorized for public safety.</p> <p>GRSG-LR-SUA-GL-001-Guideline – In PHMA, outside of existing designated corridors, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to GRSG are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines</p>

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
11	Lands/ Realty	(PHMA) Evaluate and take advantage of opportunities to remove, bury, or modify existing power lines within GRSG PHMA.	Same as Alternative B.	(PHMA) Where it is not possible to evaluate new or existing overhead facilities or where existing facilities cannot be removed, buried, or modified, require perch deterrents.	In PHMA, or within 4 miles of an active lek, for ROW/SUA renewals, where existing facilities cannot be removed, buried or modified, require perch deterrents.	and pipelines. GRSG-LR-SUA-ST-005-Standard – In PHMA and GHMA, locate upgrades to existing transmission lines within the existing designated corridors unless an alternate route would benefit GRSG or its habitats. GRSG-LR-SUA-GL-001-Guideline – In PHMA, outside of existing designated corridors, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to GRSG are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.
12	Lands/ Realty	(PHMA) Where existing leases, ROWs or SUAs have had some level of development (e.g., road, fence, and well) and are no longer in use, reclaim the site by removing these features and restoring the habitat. <i>Planning Direction Note:</i>	Same as Alternative B.	(PHMA) Reclaim and restore ROWs considering GRSG habitat requirements. (PHMA) Designate new ROW corridors in GRSG PHMA only where there is a compelling reason to do so and location of the corridor within PHMA will not	Same as Alternative D.	GRSG-LR-SUA-ST-006-Standard – In PHMA and GHMA, when a lands special use authorization is revoked or terminated and no future use is contemplated, the authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR

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		Relocate existing designated ROW corridors crossing GRSG PHMA void of any authorized ROWs, outside of PHMA. If relocation is not possible, undesignate that entire corridor during the planning process (corridor would no longer exist).		adversely affect GRSG populations due to habitat loss or disruptive activities.		251.60(i).
13	Lands/ Realty	(GHMA) Manage GHMA as avoidance areas for new ROWs and/or SUAs.	No similar action.	(GHMA and LCHMA) Same as Alternative B for GHMA and LCHMA.	No similar action.	GRSG-LR-SUA-ST-003-Standard – In PHMA and GHMA, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., more than 5 years) negative impact on GRSG or its habitats.
14	Lands/ Realty	(GHMA) Where new ROWs or SUAs are necessary in GHMA, collocate new ROWs or SUAs within existing ROWs and/or SUAs where possible.	No similar action.	Same as Alternative B.	No similar action.	GRSG-LR-SUA-ST-002-Standard – In GHMA, new lands special use authorizations may be authorized for infrastructure, such as high-voltage transmission lines and major pipelines, if they can be located within existing designated corridors and the authorization includes stipulations to protect GRSG and its habitats GRSG-LR-SUA-ST-008-

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						Standard – In PHMA and GHMA, co-locate new infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers) with existing infrastructure to limit disturbance to the smallest footprint, or where it best limits impacts to GRSG or its habitats. When co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas. New communication tower sites may be authorized for public safety.
Land Tenure Adjustment						
15	Lands/ Realty	(PHMA) Retain public ownership of GRSG PHMA. Consider exceptions where:	(PHMA) Retain public ownership of PHMA.	Same as Alternative B.	Same as Alternative B.	GRSG-LR-LOA-ST-001-Standard – In PHMA and GHMA, do not approve land ownership adjustments unless they result in a net conservation benefit to GRSG or they will not directly or indirectly adversely impact GRSG conservation.
		(PHMA) There is mixed ownership, and land exchanges would allow for additional or more	No similar action.	Same as Alternative B.	Same as Alternative B.	GRSG-LR-LOA-GL-001-Guideline – In PHMA and GHMA with minority federal ownership, consider land

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		contiguous federal ownership patterns within the GRSG PHMA.				ownership adjustments to achieve a land ownership pattern (e.g., consolidation and reducing fragmentation) that supports improved GRSG population trends and habitats.
		(PHMA) Under GRSG PHMA with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure, consideration should be given to pursuing a permanent conservation easement.	No similar action.	(PHMA) In isolated federal parcels, allow disposal of tracts that are not capable of altering GRSG populations (e.g., no leks).	(PHMA) In isolated federal parcels, only allow tract disposals that are beneficial or neutral to long-term management of GRSG populations. (GHMA) For lands in GHMA that are identified for disposal, the BLM will only dispose of such lands consistent with the goals and objectives of this LUPA, including, but not limited to, the LUPA objective to maintain or increase GRSG abundance and distribution.	See GRSG-LR-LOA-ST-001 and GRSG-LR-LOA-GL-001 above
16	Lands/ Realty	(PHMA) Where suitable conservation actions cannot be achieved, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance, or restore GRSG habitat.	(ADH) BLM and Forest Service will strive to acquire important private lands in BLM-designated ACECs and Forest Service GRSG Special Areas. Acquisition will be prioritized over easements.	(ADH) No similar action, but consider GRSG habitat values in acquisitions. For example: Identify key GRSG habitats on private or state land, adjacent to existing BLM/Forest Service land, where acquisition and protection by BLM/Forest Service could substantially	Same as Alternative D.	See GRSG-LR-LOA-ST-001 and GRSG-LR-LOA-GL-001 above

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				benefit the local GRSG population. This could be accomplished via purchase, exchange, or donation to satisfy mitigation requirements.		
Proposed Land Withdrawals						
17	Lands/ Realty	(PHMA) Propose lands within GRSG PHMA for mineral withdrawal.	Same as Alternative B.	No similar action.	No similar action.	GRSG-LR-LW-GL-001 - Guideline – In PHMA, utilize land withdrawals as a tool, where appropriate and subject to valid existing rights, to prevent activities that will be detrimental to GRSG or its habitats.
18	Lands/ Realty	(PHMA) In PHMA, do not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures.)	(ADH) Do not approve withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example, in a proposed withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures that have been demonstrated to be effective.)	No similar action.	No similar action.	See GRSG-LR-LW-GL-001 above
18a	Lands/ Realty	No similar action.	(ADH) ROWs will be amended to require features that enhance GRSG habitat security. (ADH) Existing designated corridors in BLM ACECs and Forest Service Special Areas	No similar action.	No similar action.	GRSG-LR-SUA-ST-004- Standard – In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure, guy wire removal, and perch deterrent installation) when issuing new

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			may be accessed for maintenance.			authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and cellular towers).
Wind Energy Development						
18b	Wind	No similar action.	(ADH) Do not site wind energy development in occupied GRSG habitat (Jones 2012).	No similar action.	(PHMA) Manage PHMA as exclusion areas for wind energy development. (GHMA) Manage GHMA as avoidance areas for wind energy development.	GRSG-WS-ST-001-Standard – In PHMA, do not authorize new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site). GRSG-WS-GL-001-Guideline – In GHMA, new solar and wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect GRSG and its habitats.

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18c	Wind	No similar action.	(ADH) Site wind energy development at least 5 miles from active GRSG leks.	No similar action.	No similar action.	No similar action.
Industrial Solar						
18d	Solar	No similar action.	(ADH) Industrial solar projects will be prohibited in ACECs/Zoological Areas and occupied habitats.	No similar action.	(PHMA) Manage PHMA for industrial solar projects. (GHMA) Manage GHMA as avoidance areas for industrial solar projects.	GRSG-WS-ST-001-Standard – In PHMA, do not authorize new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).
Range Management		Objectives: GRSG objectives and well managed livestock operations are compatible because forage availability for livestock, and hiding cover for GRSG, are both dependent on healthy plant communities. Agreements with partners that promote sustainable GRSG populations concurrent with sustainable ranch operations offer long-term stability. In the context of sustainable range operations, manage the range program to 1) maintain or enhance vigorous and productive plant communities, 2) maintain residual herbaceous cover to reduce predation during GRSG nesting and early brood-rearing, 3) avoid direct adverse impacts to GRSG associated range project infrastructure and 4) employ grazing management strategies that avoid concentrating animals on key GRSG habitats during key seasons.				
19	Range	(PHMA) Within GRSG PHMA, incorporate GRSG habitat objectives and management considerations into all BLM and Forest Service grazing allotments through Allotment Management Plans or permit renewals and/or Forest Service Annual Operating Instructions.	Same as Alternative B.	(ADH) Same as Alternative B, except apply to ADH.	Same as Alternative D.	No similar action.
20	Range	(ADH) Work cooperatively on integrated ranch planning within	Same as Alternative B.	Same as Alternative B.	(ADH) Work cooperatively on integrated ranch planning within GRSG habitat.	No similar action.

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		GRSG habitat so operations with deeded/BLM and/or Forest Service allotments can be planned as single units.			Develop management strategies that are seamless with respect to actions on public and private lands within BLM and/or Forest Service grazing allotments.	
21	Range	(PHMA) Prioritize completion of land health assessments (Forest Service may use other analyses) and processing grazing permits within GRSG PHMA. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for GRSG. Utilize BLM Ecological Site Descriptions (Forest Service may use other methods) to conduct land health assessments to determine if standards of range-land health are being met.	Same as Alternative B.	(ADH) Same as Alternative B, but apply to ADH. Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.	(PHMA) 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 PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations.	GRSG-LG-GL-001-Guideline – Grazing guidelines should be applied in each of the seasonal habitats in table 2. If values in table 2 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site capability analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 2.3 , consistent with the ecological site capability. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in table 2 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of GRSG habitat.
22	Range	(ADH) Conduct land health assessments that include (at a minimum) indicators and	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	See GRSG-LG-GL-001 above

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		measurements of vegetation structure/condition/composition specific to achieving GRSG habitat objectives (Doherty et al. 2011b). If local/state seasonal habitat objectives are not available, use GRSG habitat recommendations from Connelly et al. 2000a and Hagen et al. 2007.				
--	Range	No similar action.	(ADH) Retire grazing allotments within all GRSG habitat.	No similar action.	No similar action.	GRSG-LG-GL-002-Guideline – In PHMA, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired habitat conditions (Table 2.3).
Implementing Management Actions after Land Health and Habitat Evaluations						
23	Range	(PHMA) Develop specific objectives to conserve, enhance or restore PHMA based on BLM Ecological Site Descriptions (Forest Service may use other methods) and assessments (including within wetlands and riparian areas). If an	No similar action.	(ADH) Develop specific objectives – through NEPA analysis conducted in accordance with the permit/lease renewal process to conserve, enhance, or restore GRSG habitat. Base benchmarks on Ecological Site/Range Site	(ADH) Develop specific objectives – through NEPA analysis conducted in accordance with the permit/lease renewal process to conserve, enhance, or restore GRSG habitat. Base benchmarks on Ecological Site/Range Site Descriptions.	See GRSG-LG-GL-001 above

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		effective grazing system that meets GRSG habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances GRSG habitat in the NEPA document prepared for the permit renewal (Doherty et al. 2011b; Williams et al. 2011).		Descriptions. When existing on Ecological Site/Range Site Descriptions have not been developed, or are too general to serve adequately as benchmarks, identify and document local reference sites for areas of similar potential that exemplify achievement of GRSG habitat objectives and use these sites as the benchmark reference. Establish measurable objectives related to GRSG habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations.	When existing on Ecological Site/Range Site Descriptions have not been developed, or are too general to serve adequately as benchmarks, identify and document local reference sites for areas of similar potential that exemplify achievement of GRSG habitat objectives and use these sites as the benchmark reference. Establish measurable objectives related to GRSG habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations, or other habitat and successional stage objectives.	
24	Range	(ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve GRSG seasonal habitat objectives.	(ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve GRSG habitat objectives.	(ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state subject to successional stage objectives.	(ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state subject to habitat objectives, including successional stages.	See GRSG-LG-GL-001 above
25	Range	(ADH) Implement management actions (grazing decisions, Annual Operating Instructions [Forest Service only], Allotment Management	(ADH) Implement management actions (grazing decisions, Allotment Management Plan/Conservation Plan development, or other plans or agreements) to modify grazing	(ADH) Include terms and conditions on grazing permits and leases that assure plant growth requirements are met and residual forage remains	(ADH) Include terms and conditions on grazing permits and leases that address disruptive activities that affect GRSG and assure plant growth requirements are met	See GRSG-LG-GL-001 above. GRSG-LG-GL-003-Guideline – Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		Plan/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal GRSG habitat requirements (Connelly et al. 2011). Consider singly, or in combination, changes in: <ol style="list-style-type: none"> 1. Season or timing of use; 2. Numbers of livestock (includes temporary non-use or livestock removal); 3. Distribution of livestock use; 4. Intensity of use; and 5. Type of livestock (e.g., cattle, sheep, horse, llama, alpaca and goat) (Briske et al. 2011). 	management to meet seasonal GRSG habitat requirements (Connelly et al. 2011). Consider singly, or in combination, changes in: <ol style="list-style-type: none"> 1. Season, or timing, and/or frequency of livestock use; 2. Numbers/AUMs of livestock (includes temporary non-use or livestock removal); 3. Distribution of livestock use; 4. Intensity of livestock use; and 5. Type of livestock (e.g., cattle, sheep, horse, llama, alpaca and goat) (Briske et al. 2011). 	available for GRSG hiding cover. Specify as necessary: <ol style="list-style-type: none"> 1. Season or timing of use; 2. Numbers of livestock (include temporary non-use or livestock removal); 3. Distributions of livestock use; 4. Intensity of use (utilization or stubble height objectives); 5. Kind of livestock (e.g., cattle, sheep, horse, llama, alpaca, and goat); 6. Class of livestock (e.g., yearlings versus cow/calf pairs). 	and residual forage remains available for GRSG hiding cover. Specify as necessary: <ol style="list-style-type: none"> 1. Season or timing of use; 2. Numbers of livestock (include temporary non-use or livestock removal); 3. Distributions of livestock use; 4. Intensity of use (utilization or stubble height objectives); 5. Kind of livestock (e.g., cattle, sheep, horse, llama, alpaca, and goat); 6. Class of livestock (e.g., yearlings versus cow/calf pairs); 7. Locations of bed grounds, sheep camps, trail routes, and the like. 	lekking (March 1 to April 30) should be restricted. GRSG-LG-GL-004-Guideline – During breeding and nesting season (March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be restricted.
26	Range	(PHMA) During drought periods, prioritize evaluating effects of the drought in GRSG PHMA relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999), ensure that post-drought management allows for vegetation recovery that	(ADH) During drought periods, prioritize evaluating effects of drought in GRSG habitat areas relative to their biological needs, as well as drought effects on ungrazed reference areas. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999), ensure that post-drought management allows for vegetation recovery that meets	(ADH) Develop drought contingency plans at the appropriate landscape unit that provide for a consistent/appropriate BLM/Forest Service response. Plans should establish policy for addressing ongoing drought and post-drought recovery for GRSG habitat objectives.	Same as Alternative D.	No similar action.

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		meets GRSG needs in GRSG PHMA.	GRSG needs in GRSG habitat areas based on GRSG habitat objectives.			
--	Range	No similar action.	No similar action.	No similar action.	The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA would include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR 4180.2) (Appendix K) and defined responses that would allow the authorizing officer to make adjustments to livestock grazing without conducting additional NEPA.	No similar action.
--	Range	No similar action.	No similar action.	No similar action.	Allotments within PHMA, focusing on those containing riparian areas, including wet meadows, would 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.	No similar action.
Riparian Areas and Wet Meadows						
27	Range	(PHMA) Manage riparian areas and wet meadows for proper functioning condition or other similar	Same as Alternative B.	Same as Alternative B, but apply to ADH.	Same as Alternative D.	See Table 2.3 .

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		methodology (Forest Service only) within GRSG PHMA.				
28	Range	(ADH) Manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (i.e., 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 to minimize elevated mortality during the late brood-rearing period (Hagen et al. 2007; Kolada et al. 2009; Atamian et al. 2010).	(ADH) Within GRSG habitats, manage wet meadows to maintain a component of perennial forbs with diverse species richness and productivity relative to site potential (i.e., reference state) to facilitate brood-rearing. At least 6 inches of stubble height must remain on all riparian/meadow area herbaceous species at all times. Also conserve or enhance these wet meadow complexes to maintain or increase the amount of edge and cover within that edge to minimize elevated mortality during the late brood-rearing period (Hagen et al. 2007; Kolada et al. 2009; Atamian et al. 2010).	(ADH) Within ADH, manage wet meadows to maintain diverse species richness, including a component of perennial forbs, relative to site potential (i.e., reference state).	Same as Alternative D.	See Table 2.3 .
29	Range	(ADH) Where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (Forest Service only), strive to attain reference state vegetation relative to the ecological site description.	Same as Alternative B.	(ADH) Establish permit/lease terms and conditions (Line 19) in conjunction with grazing strategies to ensure that the timing and level of utilization results in wet meadows with diverse species richness, including a component of perennial forbs, relative to site	Same as Alternative D.	See Table 2.3 .

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		For example: Within GRSG PHMA, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by GRSG in the hot season (summer) (Aldridge and Brigham 2002; Crawford et al. 2004; Hagen et al. 2007).		potential (i.e., reference state).		
30	Range	(PHMA) Authorize new water development for diversion from spring or seep source only when GRSG PHMA would benefit from the development. This includes developing new water sources for livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat.	(ADH) Authorize no new water developments for diversion from spring or seep sources within GRSG habitat.	(ADH) Authorize new water development only after determining that the project will not adversely impact GRSG from habitat loss. Ensure that adequate long-term grazing management is in effect before authorizing water developments that may increase levels of use or change season of use. Give specific consideration to adjacent or downstream wetland habitat when a project entails a diversion from a spring or seep.	Same as Alternative D.	GRSG-LG-ST-001-Standard – In PHMA, do not authorize construction of water developments unless beneficial to GRSG habitat. GRSG-LG-GL-006-Guideline – New permanent livestock facilities (e.g., windmills, water tanks, and corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
31	Range	(PHMA) Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within GRSG PHMA. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to GRSG.	(ADH) Analyze springs, seeps and associated water developments to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within GRSG habitats. Make modifications where necessary, including dismantling water developments.	(PHMA) Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area. If necessary to maintain GRSG populations or reverse a downward population trend caused by habitat loss, modify or decommission the project to restore the applicable wetland habitat.	(ADH) Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area. If necessary to maintain GRSG populations or reverse a downward population trend caused by habitat loss, modify the project as necessary to restore the applicable wetland habitat.	No similar action.
--	Range	No similar action.	(ADH) Avoid grazing and trailing within lekking, nesting, brood-rearing, and winter habitats during periods of the year when these habitats are utilized by GRSG.	No similar action.	No similar action.	GRSG-LG-GL-004-Guideline – During breeding and nesting season (March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be restricted.
Treatments to Increase Forage for Livestock/Wild Ungulates						
32	Range	(PHMA) Only allow treatments that conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat).	(ADH) Ensure that vegetation treatments create landscape patterns which most benefit GRSG. Only allow treatments that are demonstrated to benefit GRSG and retain sagebrush height and cover consistent with GRSG habitat objectives (this includes	(PHMA–Sagebrush Ecosites) Retain in sagebrush habitat, for each Colorado MZ, a minimum of 70 percent of the ecological sites capable of supporting 12 percent canopy cover of Wyoming Sagebrush or 15 percent canopy cover of Mountain	(ADH) Manage for a habitat objective that is primarily sagebrush with a mosaic of seral stages and sagebrush in all age classes. On a site-by-site basis, do not allow treatments that would adversely affect GRSG populations.	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (Table 2.3). GRSG-GRSGH-GL-006-Guideline – In PHMA, vegetation treatment projects

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
			<p>treatments that benefit livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat).</p>	<p>Sagebrush. Manage for a total disturbance cap of less than 30 percent, to include all loss of sagebrush from all causes including anthropogenic disturbance, wildfire, plowed field agriculture, and vegetation treatments. This cap is applied to PHMA that support sagebrush ecosites in the Colorado MZ. Sites capable of supporting sagebrush habitat will count against the cap until they have recovered to at least 12 percent canopy cover in Wyoming big sagebrush and 15 percent in mountain big sagebrush dominated areas (Bohne et al. 2007). Note:</p> <ul style="list-style-type: none"> • Only mappable stands of cheatgrass and Pinyon/Juniper encroachment will count against the disturbance cap. • Irrigated meadows do not count against the cap. • On a site-by-site basis, independent of cap management issues, do not allow treatments with the potential to adversely affect GRSG populations. 	<p>See Appendix H, Guidelines for Implementation.</p>	<p>should only be conducted if they restore, enhance, or maintain desired habitat conditions (Table 2.3).</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
33	Range	<p>(PHMA) Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG PHMA to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an Allotment Management Plan/ Conservation Plan or if they provide value in conserving or enhancing the rest of PHMA, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments (or other analyses [Forest Service only]) (Davies et al. 2011).</p> <p>For example: Some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure in important sagebrush habitats or serve as a strategic fuels management area.</p>	<p>(ADH) Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG habitat to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings provide value in conserving or enhancing GRSG habitats, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat during the land health assessments.</p>	Same as Alternative B.	Same as Alternative B.	<p>GRSG-GRSGH-GL-001-Guideline – Sagebrush removal in GRSG breeding and nesting and wintering habitats should be restricted unless necessary to support attainment of desired habitat conditions (Table 2.3).</p> <p>GRSG-GRSGH-GL-005-Guideline – In PHMA and GHMA, native plant species should be used, when possible, to restore, enhance, or maintain desired habitat conditions (Table 2.3).</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
--	Range	No similar action.	(ADH) Any vegetation treatment plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring where treated areas are monitored for at least 3 years before grazing returns. Continue monitoring for 5 years after livestock are returned to the area, and compare to treated, ungrazed exclosures, as well as untreated areas.	No similar action.	No similar action.	No similar action.
Structural Range Improvements and Livestock Management Tools						
34	Range	(PHMA) Design any new structural range improvements and location of supplements (salt or protein blocks) to 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	(ADH) Avoid all new structural range developments in occupied GRSG habitat unless independent peer-reviewed studies show that the range improvement structure benefits GRSG. Salt and supplement will not be used within occupied habitat. Structural range developments, 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	(ADH) Design new range improvement projects to enhance livestock distribution and to control the timing and intensity of utilization. Examples of structural range improvement projects are cattle guards, fences, corrals, pipelines, troughs, storage tanks, windmills, ponds/reservoirs, solar panels, and spring developments. Include a plan to monitor and control invasive plant species following any related ground disturbance.	Same as Alternative D.	GRSG-LG-ST-001-Standard – In PHMA, do not authorize construction of water developments unless beneficial to GRSG habitat. GRSG-LG-GL-005-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		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.	developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction. Consider the comparative cost of changing grazing management instead of constructing additional range developments.	Place mineral or salt supplements away from water sources and leks in locations that enhance livestock distribution.		
35	Range	(PHMA) When developing or modifying water developments, use applicable PDFs or RDFs (see this table's PDFs/RDFs) to mitigate potential impacts from West Nile virus (Clark et al. 2006; Doherty 2007; Walker et al. 2007b; Walker and Naugle 2011).	Same as Alternative B.	(PHMA) Where conditions create the potential for impacts from West Nile virus, use PDFs/RDFs to mitigate the potential impacts. See Appendix I .	(PHMA) Where conditions create the potential for impacts from West Nile virus from developments or modification of water developments, use PDFs/RDFs to mitigate the potential impacts. See Appendix I .	GRSG-LG-ST-001-Standard – In PHMA, do not authorize construction of water developments unless beneficial to GRSG habitat.
36	Range	(PHMA) Evaluate existing structural range improvements and location of supplements (salt or protein blocks) to make sure they conserve, enhance or restore GRSG habitat.	Same as Alternative B.	(PHMA) Evaluate existing structural range improvements to determine if modifications are necessary to maintain GRSG populations or reverse a downward population trend caused by habitat loss. Modify, relocate, or remove projects as necessary. Place mineral and salt	Same as Alternative D.	GRSG-LG-GL-005-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design). GRSG-LG-GL-006-Guideline

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				supplements away from water sources and leks in locations that enhance livestock distribution.		– New permanent livestock facilities (e.g., windmills, water tanks, and corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.
37	Range	(PHMA) To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas within GRSG PHMA based on proximity to lek, lek size, and topography (Christiansen 2009; Stevens 2011).	(ADH) Remove, modify or mark fences in areas of moderate or high risk of GRSG strikes within GRSG habitat based on proximity to lek, lek size, and topography (Christiansen 2009; Stevens 2011).	(ADH) Mark fences in high risk areas (Christiansen 2009; Stevens 2011). (PHMA) Where marking fences does not reduce fence-related GRSG mortality, modify fences. Where modification does not reduce GRSG mortality and the fence-related mortality is sufficient to adversely affect GRSG populations, remove fences.	Same as Alternative D.	See GRSG-LG-GL-005
38	Range	(PHMA) Monitor for and treat invasive species associated with existing range improvements (Gelbard and Belnap 2003; Bergquist et al. 2007).	Same as Alternative B.	Same as Alternative B, but apply to ADH.	Same as Alternative D.	No similar action.
--	Range	No similar action.	(ADH) Any vegetation treatment plan must include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring where treated areas are monitored for at least 3 years before grazing returns.	No similar action.	No similar action.	No similar action.

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
			Continue monitoring for 5 years after livestock are returned to the area, and compare to treated, ungrazed exclosures, as well as untreated areas.			
Retirement of Grazing Privileges						
39	Range	(ADH) Maintain retirement of grazing privileges as an option in PHMA when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals. <i>Planning direction note:</i> Each planning effort will identify the specific allotment(s) where retirement of grazing privileges is potentially beneficial.	Same as Alternative B. <i>Planning direction note:</i> In each planning process, identify grazing allotments where permanent retirement of grazing privileges would be potentially beneficial to GRSG.	(ADH) When a permittee or lessee voluntarily relinquishes grazing preference, consider conversion of the allotment to a reserve allotment (grass bank) that will remain available for use on a temporary, nonrenewable basis for the benefit of GRSG habitat. Authorize temporary nonrenewal permits in reserve allotments to meet resource objectives elsewhere such as rest or deferment due to fire.	(ADH) 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 fuel breaks or reserve common allotments. When a permittee or lessee voluntarily relinquishes grazing preference, consider conversion of the allotment to a reserve common allotment that will remain available for use on a temporary, nonrenewable basis for the benefit of GRSG habitat. Authorize temporary nonrenewal permits in reserve common allotments to meet resource objectives elsewhere such as rest or deferment due to fire or	GRSG-LG-GL-002-Guideline – In PHMA, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired habitat conditions (Table 2.3).

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Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					vegetation treatments. Temporary use of reserve common allotments would not be allowed due to drought or overuse of customary allotments.	
--	Range	No similar action.	(ADH) Encourage partners to monitor effects of retiring grazing permits in GRSG habitat.	No similar action.	No similar action.	No similar action.
Wild Horse Management		Objective: Manage wild horses in a manner designed to 1) avoid reductions in grass, forb, and shrub cover, and 2) avoid increasing unpalatable forbs and invasive plants such as cheatgrass.				
40	Wild Horses	(PHMA) Manage wild horse population levels within established appropriate management levels.	Same as Alternative B.	(ADH) Same as Alternative B, except apply to ADH.	Same as Alternative D.	n/a
41	Wild Horses	(ADH) Prioritize gathers in GRSG PHMA, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.	Same as Alternative B.	(ADH) Same as Alternative B, but consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.	Same as Alternative D.	n/a
42	Wild Horses	(PHMA) Within PHMA, develop or amend BLM HMA Plans and Forest Service Wild Horse Territory Plans to incorporate GRSG habitat objectives and management considerations for all BLM	Same as Alternative B.	Same as Alternative B. When developing HMA Plans, apply all appropriate conservation measures from the Range program, including, but not limited to utilization of forage and structural range	Same as Alternative D.	n/a

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		HMA's and Forest Service Wild Horse Territories.		improvements.		
43	Wild Horses	(PHMA) For all BLM HMA's and Forest Service Wild Horse Territories within PHMA, prioritize the evaluation of all appropriate management levels based on indicators that address vegetation structure/condition/ composition and measurements specific to achieving GRSG habitat objectives.	No similar action.	Same as Alternative B, but consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.	Same as Alternative D.	n/a
44	Wild Horses	(ADH) Coordinate with other resources (range, wildlife, and riparian) to conduct land health assessments to determine existing vegetation structure/condition/ composition within all BLM HMA's and Forest Service Wild Horse Territories.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	n/a
45	Wild Horses	(PHMA) When conducting NEPA analysis for wild horse management activities, water developments or other rangeland improvements for wild horses in PHMA, address the direct and indirect effects to GRSG populations and habitat.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	n/a

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(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in PHMA.				
Fluid Minerals Management¹		Objective: Manage fluid minerals to avoid, minimize, and compensate for 1) direct disturbance, displacement, or mortality of GRSG, 2) direct loss of habitat, or loss of effective habitat through fragmentation, and 3) cumulative landscape-level impacts. 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 nonhabitat 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 3162.3-1(h).				
Unleased Fluid Minerals						
46	Fluid Minerals	(PHMA) Close GRSG PHMA to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas.	(ADH) Close occupied habitat areas to fluid mineral leasing. No new leases or permits will be issued. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within occupied habitat.	<p>GRSG PHMA NSO-46d. Apply NSO stipulation for fluid mineral leasing in PHMA.</p> <p>GRSG ADH NSO-46d. Apply NSO stipulation for fluid mineral leasing in ADH within a minimum distance of 0.6-mile from active leks.</p> <p>GRSG ADH TL-46d. Within ADH, prohibit surface occupancy within a minimum of 4 miles from active leks during lekking, nesting, and early brood-</p>	<p>No new leasing 1 mile from active leks in ADH (Blickley et al. 2012; Harju 2012). NSO in PHMA and within 2 miles of active leks in GHMA.</p> <p>3 percent disturbance cap in PHMA with disturbances limited to 1 disturbance per 640 acres density calculated by biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) would apply to new lease activities.</p> <p>No new leasing in PHMA if</p>	<p>GRSG-M-FMUL-ST-001-Standard – In PHMA, any new oil and gas leases must include an NSO stipulation. There will be no waivers or modifications. An exception could be granted by the Authorized Officer with unanimous concurrence from a team of agency GRSG experts from USFWS, Forest Service, and State wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to GRSG or its habitats or

¹ The Oil Shale and Tar Sands Programmatic EIS (March 2013) excludes from oil shale leasing all core/priority GRSG habitat (PHMA in Colorado). Note that in GHMA, the management actions for fluid minerals also pertain to oil shale resources through all alternatives. Decisions for leasable fluid minerals also apply to uranium.

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>rearing.</p> <p>Ecological Sites that Support Sagebrush in PHMA CSU-46d. Surface disturbance within ecological sites that support sagebrush in PHMA would not exceed 5 percent within the corresponding Colorado MZ. See Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations and Appendix E, Methodology for Calculating Disturbance Caps.</p>	<p>disturbance cap exceeds 3 percent for the biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ) or 1 disturbance per 640 acres is exceeded.</p> <p>The following stipulations would apply (Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations):</p> <p>GRSG NSO-46e (1), GRSG NSO-46e (2): See Appendix D for waiver, modification and exception criteria.</p> <p>GRSG TL-46e: No activity associated with construction, drilling, or completions within 4 miles from active leks during lekking, nesting, and early brood-rearing (March 1 to July 15). Authorized Officer could grant an exception, modification, or waiver in consultation with the State of Colorado (Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).</p>	<ul style="list-style-type: none"> • Granting the exception provides an alternative to a similar action occurring on a nearby parcel and • The exception provides a clear net conservation gain to GRSG. <p>GRSG-M-FMUL-ST-002-Standard – In GHMA, any new leases must include appropriate CSU and TL stipulations to protect GRSG and its habitat.</p> <p>GRSG-M-FMUL-ST-003 – In PHMA and GHMA, when analyzing leasing of fluid mineral resources, prioritize development in nonhabitat areas first and then in the least suitable habitat for GRSG, subject to valid existing rights, law, and regulations.</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					<p>GRSG LN-46e: any lands leased in PHMA are subject to the restrictions of 1 disturbance per 640 acres calculated by biologically significant unit (Colorado population) and proposed project analysis area (Colorado MZ) to allow clustered development (Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).</p>	
		<p>(PHMA) Allow geophysical exploration within GRSG PHMA s to obtain information for existing federal fluid mineral leases or areas adjacent to state or fee lands within GRSG PHMA. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal TLs and other restrictions that may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding,</p>	<p>(ADH) Allow geophysical exploration within occupied GRSG habitat areas to obtain exploratory information for areas outside of and adjacent to occupied GRSG habitat areas. Only allow geophysical operations by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood-rearing and winter habitats during their season of use by GRSG.</p>	Same as Alternative B.	Same as Alternative B.	See above

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		nesting, brood-rearing, and winter habitats during their season of use by GRSG.				
Leased Fluid Minerals						
Objective: Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator or project proponent in developing an Application for Permit to Drill for the lease to avoid and minimize impacts to GRSG or its habitat and will ensure that the best information about GRSG and its habitat informs and helps guide development of such federal leases.						
47	Fluid Minerals	(PHMA) Apply the following conservation measures through LUP implementation decisions (e.g., approval of an Application for Permit to Drill, and Sundry Notice) and upon completion of the environmental record of review (43 CFR 3162.5), include appropriate documentation of compliance with NEPA. In this process evaluate, among other things: 1. Whether the conservation measure is "reasonable" (43 CFR 3101.1-2) with the valid existing rights; and 2. Whether the action is in conformance with the approved LUP. <i>(see row for NTT 49 below)</i>	(ADH) Apply the following conservation measures as COAs at the project and well permitting stages, and through LUP implementation decisions and upon completion of the environmental record of review (43 CFR 3162.5), include appropriate documentation of compliance with NEPA. In this process evaluate, among other things: 1. Whether the conservation measure is "reasonable" (43 CFR 3101.1-2) with the valid existing rights; and 2. Whether the action is in conformance with the approved LUP.	GRSG PHMA COA-47-51 d. Prohibit surface occupancy or disturbance within 4 miles of a lek during lekking, nesting, and early brood-rearing. GRSG Ecological Sites that Support Sagebrush in PHMA COA-47-51 d. Limit permitted disturbances to 5 percent in any Colorado MZ. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	Within 1 mile of active leks, disturbance, disruptive activities and occupancy are precluded. If it is determined that this restriction would render 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 disturbance per 640 acres, and/or 3 percent disturbance cap, use the criteria below to site proposed lease activities to meet GRSG habitat objectives and require mitigation as described in Appendix G (Greater Sage-Grouse Mitigation Strategy). In PHMA and within 4 miles of an active lek, the criteria	GRSG-M-FML-ST-001-Standard – In PHMA, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface-disturbing and disruptive activities consistent with the rights and conditions granted in the lease. GRSG-M-FML-ST-002-Standard – In PHMA, when facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 2.3 . GRSG-M-FML-ST-003-

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					<p>below would be applied to guide development of the lease or unit that would result in the fewest impacts possible to GRSG.</p> <p>Based on site-specific conditions, prohibit construction, drilling and completion within PHMA within 4 miles of a lek during lekking, nesting, and early brood-rearing (March 1 to July 15). In consultation with the State of Colorado, this TL may be adjusted based on application of the criteria below.</p> <p>Criteria*:</p> <ul style="list-style-type: none"> • Location of proposed lease activities in relation to critical GRSG habitat areas as identified by factors, including but not limited to, average male lek attendance and/or important seasonal habitat. • An evaluation of the potential threats from proposed lease activities that may affect the local population as compared to benefits that could be 	<p>Standard – In GHMA, authorize new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect GRSG and its habitats, consistent with the terms and conditions of the permit.</p> <p>GRSG-M-FML-ST-004-Standard – Locate compressor stations on portions of a lease that are nonhabitat and are not used by GRSG, and if there would be no direct, indirect, or cumulative effects on GRSG or its habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise.</p> <p>GRSG-M-FML-ST-005-Standard – In PHMA and GHMA, when authorizing development of fluid mineral resources, prioritize development in nonhabitat areas first and then in the least suitable habitat for</p>

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					<p>accomplished through compensatory or off-site mitigation (Section 2.6.3, Regional Mitigation)</p> <ul style="list-style-type: none"> An evaluation of the proposed lease activities, including design features, in relation to the site-specific terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance, and shield nearby habitat from disruptive factors. This is particularly likely in Colorado MZ 17, which has an atypical GRSG habitat – featuring benches with GRSG habitat interspersed with steep ravines. <p>To authorize an activity based on the criteria above, the environmental record of review must show no significant direct disturbance, displacement, or mortality of GRSG.</p>	<p>GRSG, subject to valid existing rights, law, and regulations</p> <p>GRSG-M-FML-GL-001-Guideline – In PHMA and GHMA, operators should be encouraged to reduce disturbance to GRSG habitat. At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to GRSG habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p> <p>GRSG-M-FML-GL-002-Guideline – On federal leases in PHMA, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to GRSG based on vegetation, topography, or other habitat features.</p> <p>GRSG-M-FML-GL-003-</p>

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
						Guideline – In PHMA and GHMA, where the federal government owns the surface and the mineral estate is in nonfederal ownership coordinate with the mineral estate owner/lessee to apply appropriate stipulations, COAs, conservation measures and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.
48	Fluid Minerals	(PHMA) Provide the following conservation measures as terms and conditions on an approved LUP: (see row for NTT 49 below)	Same as Alternative B.	<p>GRSG PHMA COA-47-51d. Prohibit surface occupancy or disturbance within 4 miles of a lek during lekking, nesting, and early brood-rearing.</p> <p>GRSG Ecological Sites that Support Sagebrush in PHMA COA-47-51d. Limit permitted disturbances to 5 percent in any Colorado MZ.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>	See Line 47.	See Line 47.
49	Fluid Minerals	GRSG PHMA COA-47-51b/c. The	Same as Alternative B.	GRSG PHMA COA-47-51d. Prohibit surface	See Line 47.	See Line 47.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		<p>operator/lessee is required to conduct site-specific review of proposed projects prior to approval of Applications for Permit to drill. For leases within PHMA, the following COAs would apply:</p> <ul style="list-style-type: none"> • Preclude new surface occupancy on existing leases within PHMA. • If the lease is entirely within a PHMA, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. • If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease 		<p>occupancy or disturbance within 4 miles of a lek during lekking, nesting, and early brood-rearing.</p> <p>GRSG Ecological Sites that Support Sagebrush in PHMA COA-47-51 d. Limit permitted disturbances to 5 percent in any Colorado MZ.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>		

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		<p>from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>				
50	Fluid Minerals	<p>GRSG PHMA COA-47-51b/c. The operator/lessee is required to conduct site-specific review of proposed projects prior to approval of Applications for Permit to drill. For leases within PHMA, the following COAs would apply:</p> <ul style="list-style-type: none"> • Preclude new surface occupancy on existing leases within PHMA. • If the lease is entirely within a PHMA, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one 	Same as Alternative B.	<p>GRSG PHMA COA-47-51d. Prohibit surface occupancy or disturbance within 4 miles of a lek during lekking, nesting, and early brood-rearing.</p> <p>GRSG Ecological Sites that Support Sagebrush in PHMA COA-47-51d. Limit permitted disturbances to 5 percent in any Colorado MZ.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>	See Line 47.	See Line 47.

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		<p>per section with no more than 3 percent surface disturbance in that section.</p> <ul style="list-style-type: none"> If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation. <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>				
51	Fluid Minerals	GRSG PHMA COA-47-51 b/c. The operator/lessee is required to conduct site-specific	Same as Alternative B.	GRSG PHMA COA-47-51 d. Prohibit surface occupancy or disturbance within 4 miles of a lek	See Line 47.	See Line 47.

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		<p>review of proposed projects prior to approval of Applications for Permit to drill. For leases within PHMA, the following COAs would apply:</p> <ul style="list-style-type: none"> • Preclude new surface occupancy on existing leases within PHMA. • If the lease is entirely within a PHMA, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. • If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or depending on 		<p>during lekking, nesting, and early brood-rearing.</p> <p>GRSG Ecological Sites that Support Sagebrush in PHMA COA-47-51 d.</p> <p>Limit permitted disturbances to 5 percent in any Colorado MZ.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>		

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		<p>topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>				
52	Fluid Minerals	<p>GRSG PHMA COA-52b/d. Apply a seasonal restriction on exploratory drilling in PHMA to prohibit surface-disturbing activities during the lekking, nesting and early brood-rearing season.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>	<p>GRSG ADH COA-52c. Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the lekking, nesting, and early brood-rearing season in ADH. This seasonal restriction shall also apply to related activities that are disruptive to GRSG, including vehicle traffic and other human presence.</p> <p>(Refer to Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)</p>	Same as Alternative B.	See Line 47 (No distinction between types of drilling activities).	See Line 47 (No distinction between types of drilling activities).
53	Fluid Minerals	<p>(PHMA) BLM/Forest Service should closely examine the applicability of categorical exclusions in PHMA. If extraordinary</p>	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	No similar action

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		circumstances review is applicable, the BLM/Forest Service should determine whether those circumstances exist.				
54	Fluid Minerals	GRSG PHMA Notice to Lessees-54b/c. For leases within PHMA, complete Master Development Plans in lieu of single-well Applications for Permit to Drill processing for all but wildcat wells. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	Same as Alternative B.	GRSG PHMA Notice to Lessees-54d. Within PHMA, complete Master Development Plans instead of single-well Applications for Permit to Drill for all but exploratory wells. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	GRSG PHMA Notice to Lessees-54e. Within PHMA, operators would be encouraged to complete Master Development Plans in consultation with the State of Colorado, instead of single-well Applications for Permit to Drill for all but exploratory wells. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	No similar action
55	Fluid Minerals	GRSG PHMA COA-55b. For leases that are not yet developed in PHMA, the proposed surface disturbance cannot exceed 3 percent within that Colorado MZ. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	GRSG ADH COA-55c. For leases that are not yet developed in ADH, the proposed surface disturbance cannot exceed 3 percent for that entire Colorado MZ. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	GRSG PHMA COA-55d. For leases that are not yet developed, the proposed surface disturbance cannot exceed 5 percent for ecological sites that support sagebrush in PHMA for that Colorado MZ. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	See Line 47.	No similar action.
56	Fluid Minerals	(PHMA) When necessary, conduct additional,	(ADH) When necessary, conduct additional, effective	Same as Alternative B.	(PHMA) When necessary, conduct effective mitigation	No similar action

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		effective mitigation in 1) GRSG PHMA or—less preferably—2) GHMA (dependent upon the area-specific ability to increase GRSG populations).	mitigation in occupied habitat (dependent upon the area-specific ability to increase GRSG populations).		in 1) GRSG PHMA or—less preferably—2) GHMA (dependent upon the area-specific ability to increase GRSG populations and in consultation with the State of Colorado).	
57	Fluid Minerals	(PHMA) Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same Colorado MZ as the impact, per 2006 WAFWA Strategy (p. 2-17).	(ADH) Conduct additional, effective mitigation first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same Colorado MZ as the impact, per 2006 WAFWA Strategy (p. 2-17).	Same as Alternative B.	(PHMA) Conduct effective mitigation first within the same Colorado MZ where the impact is realized, and if not possible then conduct mitigation within the same population as the impact, or in other Colorado GRSG populations, in consultation with the State of Colorado.	No similar action
58	Fluid Minerals	GRSG PHMA Notice to Lessees-58b/c. Require unitization when deemed necessary for proper development and operation of an area to minimize adverse impacts to GRSG. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	Same as Alternative B.	GRSG PHMA Notice to Lessees-58d. Encourage unitization within Colorado MZs when necessary for proper development and operation of an area or to facilitate more orderly (i.e., phased and/or clustered) development as a means of minimizing adverse impacts to GRSG. (Refer to Appendix D , Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations.)	No similar action.	No similar action

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59	Fluid Minerals	(PHMA) Identify areas where acquisitions (including subsurface mineral rights) or conservation easements would benefit GRSG.	Same as Alternative B.	No similar action.	No similar action.	No similar action.
60	Fluid Minerals	(ADH) For future actions, require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Ensure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000a; Hagen et al. 2007) that would 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 for the BLM and Forest Service will perform the work.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	No similar action.
--	Fluid Minerals	No similar action.	(ADH) Prohibit the construction of evaporation or infiltration reservoirs to hold coalbed methane wastewater.	No similar action.	No similar action.	No similar action.
--	Fluid Minerals	No similar action.	(ADH) Agencies will explore options to amend, cancel, or buy out leases in ACECs/Zoological Areas and occupied habitats.	No similar action.	No similar action.	No similar action.
--	Fluid Minerals	No similar action.	(ADH) Include conditions that require relinquishment of	No similar action.	No similar action.	No similar action.

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			leases/authorizations if doing so will: 1) mitigate the impact of a proposed development, or 2) mitigate the unanticipated impacts of an approved development.			
--	Fluid Minerals	No similar action.	(ADH) No waivers will be issued.	No similar action.	No similar action.	No similar action.
--	Fluid Minerals	No similar action.	(ADH) Any oil, gas, geothermal activity will be conducted to maximize avoidance of impacts, based on evolving scientific knowledge of impacts.	No similar action.	No similar action.	No similar action.
61	Fluid Minerals	Where applicable and technically feasible, apply PDFs/RDFs (see this table's Fluid Minerals and Multiple Program sections) as mandatory COAs within GRSG PHMA.		The range of alternatives is articulated in the specific PDF/RDF sections.		GRSG-M-FMO-ST-001-Standard – In PHMA, do not authorize employee camps. GRSG-M-FMO-ST-002-Standard – In PHMA, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents. GRSG-M-FMO-GL-001-Guideline – In PHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible. GRSG-M-FMO-GL-002-Guideline – In PHMA and GHMA, during drilling

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						operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.
Solid Minerals		Objective: Manage solid mineral programs to avoid, minimize and mitigate adverse impacts to GRSG habitat to the extent practical under the law and BLM/Forest Service jurisdiction.				
Coal						
62	Solid Minerals- Coal	(ADH) Apply minimization of surface-disturbing or disruptive activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity level planning. Use additional effective mitigation to offset impacts as appropriate (determined by local options/needs).	Same as Alternative B.	(ADH) <i>Existing Coal Leases:</i> During the term of the lease, encourage the lessee to voluntarily follow PDFs (Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features) to reduce and mitigate any adverse impacts to GRSG.	(ADH) <i>Existing Coal Leases:</i> During the term of the lease, encourage the lessee to voluntarily follow PDFs (Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features) to reduce and mitigate any adverse impacts to GRSG. 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 area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).	GRSG-M-CML-ST-001-Standard – In PHMA, do not authorize new appurtenant surface facilities for existing underground mines unless no technical feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of PHMA, co-locate them with any existing disturbed areas, if possible. If co-location is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by Mine Safety and Health Administration mine-plan approval process, and locate the facilities in an area least harmful to GRSG habitats based on vegetation, topography, or other habitat

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					<p>To authorize expansion of existing leases, the environmental record of review must show no significant direct disturbance, displacement, or mortality of GRSG based on the criteria below:</p> <ul style="list-style-type: none"> • Critical GRSG habitat areas as identified by factors, including but not limited to, average male lek attendance and/or important seasonal habitat. • An evaluation of the threats affecting the local population as compared to benefits that could be accomplished through compensatory or off-site mitigation (see Section 2.7.3, Regional Mitigation) • An evaluation of terrain and habitat features. For example, within 4 miles from a lek, local terrain features such as ridges and ravines may reduce the habitat importance, and shield nearby habitat from disruptive factors. 	<p>features.</p> <p>GRSG-M-CML-GL-001-Guideline – In PHMA and GHMA, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to GRSG and its habitats to conserve, enhance, and restore habitat for long-term viability.</p>

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

(PHMA) = Priority Habitat Management Area, (GHMA) = General Habitat Management Area, (LCHMA) = Linkage/Connectivity Habitat Management Area, (ADH) = All Designated Habitat

NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
63	Solid Minerals-Coal	(PHMA) <i>Surface mines</i> : Find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5.	Same as Alternative B.	(ADH) <i>New Surface coal mine Leases</i> : Apply the requirements of 43 CFR 3461 to determine unsuitability. Find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 to ensure that the specific Lek instance or reference is adequately addressed. Where practicable, limit permitted disturbances as defined in Appendix E, Methodology for Calculating Disturbance Caps , to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat. Disturbance Cap Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado GRSG MZ are healthy and stable at objective levels or increasing, and that the development will not	(PHMA) No new surface coal mine leases would be allowed in PHMA. At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM would determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).	GRSG-M-CMUL-ST-001-Standard – In PHMA, do not authorize surface disturbances (e.g., appurtenant facilities) for new underground coal mines.

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				adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases, this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.		
64	Solid Minerals-Coal	(PHMA) <i>Sub-surface Mining</i> : Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the GRSG PHMA. In GRSG PHMA, place any new appurtenant facilities outside of PHMA. Where new appurtenant facilities associated with the existing lease cannot be located outside the GRSG PHMA, collocate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the absolute minimum standard necessary.	Same as Alternative B.	(ADH) <i>New Underground Coal Mines Leases</i> : Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the GRSG PHMA [43 CFR 3461.1 (a) and (b)]. Also see Part 3460: Environment, Subpart 3461: Federal Lands Review: Unsuitability for Mining, 3461.1. Where practicable, limit permitted disturbances as defined in Appendix E, Methodology for Calculating Disturbance Caps , to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective	<i>New Underground Coal Mine Leases would be subject to:</i> <u>Special Stipulations:</u> <ul style="list-style-type: none"> All surfaces disturbances will be placed more than 2 miles from active leks. No surface disturbance on remainder of PHMA subject to the following conditions: If, after consultation with the State of Colorado, and in consideration of the following criteria, there is no significant direct disturbance, displacement, or mortality of GRSG or impact to GRSG habitat; 	GRSG-M-CML-ST-001-Standard – In PHMA, do not authorize new appurtenant surface facilities for existing underground mines unless no technical feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of PHMA, co-locate them with any existing disturbed areas, if possible. If co-location is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by Mine Safety and Health Administration mine-plan approval process, and locate

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>mitigation necessary to offset the resulting loss of GRSG habitat.</p> <p>Disturbance Cap Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado GRSG MZ are healthy and stable at objective levels or increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases, this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.</p>	<p>(List criteria)</p> <ul style="list-style-type: none"> • 3 percent disturbance cap in PHMA with disturbances limited to 1 disturbance per 640 acres density calculated by biologically significant unit (Colorado population) and proposed project analysis area (Colorado MZ) would apply to new lease activities. • No new leasing in PHMA if disturbance cap exceeds 3 percent for the biologically significant unit (Colorado population) and proposed project analysis area (Colorado MZ) or 1 disturbance per 640 acres is exceeded. 	<p>the facilities in an area least harmful to GRSG habitats based on vegetation, topography, or other habitat features.</p> <p>GRSG-M-CML-GL-001-Guideline – In PHMA and GHMA, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to GRSG and its habitats to conserve, enhance, and restore habitat for long-term viability.</p>
		No similar action.	No similar action.	<p>(ADH) Underground mining exemption criteria for new leases:</p> <ol style="list-style-type: none"> I. Federal lands with coal deposits that would be mined by underground 	Same as Alternative D.	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in 43 CFR 3400.0-5 (mm) of this title, on any lease, if issued.</p> <p>2. Where underground mining will include surface operations and surface impacts on federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency find that a relevant exception or exemption applies. See 43 CFR 3461.1(b). Where practicable, limit permitted disturbances as defined in Appendix E, Methodology for Calculating Disturbance Caps, to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective mitigation necessary to offset the</p>		

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				resulting loss of GRSG habitat.		
--	Solid Minerals-Coal	No similar action.	No similar action.	(PHMA) See 43 CFR 3461.4 (a) and (b) Exploration. Authorized exploration activities may be conducted only if the Authorized Officer reviews any application for an exploration license on such lands to ensure that any exploration does not harm any value for which the area has been assessed as unsuitable and determines that the exploration will not adversely affect GRSG populations due to habitat loss or disruptive activities or that the impact can be fully mitigated. Where practicable, limit permitted disturbances as defined in Appendix E , Methodology for Calculating Disturbance Caps, to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat. Disturbance Cap Exception Criteria:	(PHMA) See 43 CFR 3461.4 (a) and (b) Exploration. Authorized exploration activities may be conducted only if the Authorized Officer reviews any application for an exploration license on such lands to ensure that any exploration does not harm any value for which the area has been assessed as unsuitable and determines that the exploration will not adversely affect GRSG populations due to habitat loss or disruptive activities or that the impact can be fully mitigated. Where practicable, limit permitted disturbances as defined in Appendix E , Methodology for Calculating Disturbance Caps, to 3 percent in PHMA any Colorado MZ. Where disturbance exceeds 3 percent in any Colorado MZ and proposed project analysis area make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado GRSG MZ are healthy and stable at objective levels or increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases, this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.		
--	Solid Minerals – Coal	No similar action.	No similar action.	(PHMA) <i>Underground mining – lease renewals:</i> <ul style="list-style-type: none"> Require that all surface mining appurtenant facilities for underground mining be located outside of PHMA (unless the lessee establishes that that such location is not technically feasible). 	Same as Alternative D.	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<ul style="list-style-type: none"> • If surface mining facilities must be located in PHMA, require the facilities be located in areas of existing disturbance and to have the smallest footprint possible utilizing design strategies to minimize disturbance such as those identified in the PDF section of this table. • Apply as conditions of lease renewal all appropriate conservation measures, PDFs, and mitigation designed to avoid, minimize impacts to GRSG. <p><i>(ADH) Surface mining – lease renewals/ adjustments: Apply as conditions of lease renewal all appropriate conservation measures, PDFs, and mitigation designed to avoid, minimize impacts to GRSG.</i></p>		
--	Solid Minerals-Coal	No similar action.	No similar action.	(ADH) Recommend or require as appropriate during all relevant points of the coal leasing and	Same as Alternative D.	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>authorization process, minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity level planning (jurisdiction is managed by the State.) The Office of Surface Mining or a delegated State Regulatory authority under the Surface Mining Control and Reclamation Act of 1977 authorizes surface disturbance activities of active coal mining operations on federal mineral estate. The BLM/Forest Service coordinates with the Surface Mining Control and Reclamation Act of 1977 regulatory authority in overseeing coal leasing and permitting on federal lands. The resource recovery and protection plan for which BLM/Forest Service recommends approval to the Secretary integrates the reclamation plan</p>		

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				recommended by the Surface Mining Control and Reclamation Act of 1977 regulatory authority for active coal mines on federal mineral estate. Approval of coal mining plans on lands containing leased federal coal is reserved to the Secretary of the Interior. 30 CFR 740.4. BLM and Forest Service issue coal leases and exploration licenses for right of entry to promote development of minerals on federal lands. See the following in regards to BLM exploration: 43 CFR 3461.4. Exploration. States with delegated authority on federal lands from the Office of Surface Mining may have their own GRSG guidance in association with state wildlife agencies and such guidance may differ from state to state.		
		No similar action.	No similar action.	(ADH) (a) Assessment of any area as unsuitable for all or certain stipulated methods of coal mining operations pursuant to Section 522 of the Surface Mining Control and Reclamation Act of 1977 (<u>30 USC 1272</u>) and the	Same as Alternative D.	No similar action.

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				regulations of this subpart does not prohibit exploration of such area under 43 CFR 3410 and 43 CFR 3480. 43 CFR 3461.4(a)		
		No similar action.	No similar action.	(ADH) (b) An application for an exploration license on any lands assessed as unsuitable for all or certain stipulated methods of coal mining shall be reviewed by the BLM/Forest Service to ensure that exploration does not harm any value for which the area has been assessed as unsuitable. 43 CFR 3461.4(b)	Same as Alternative D.	No similar action.
Locatable Minerals						
65	Locatable Minerals	(PHMA) Recommend withdrawal from mineral entry based on risk to the GRSG and its habitat from conflicting locatable mineral potential and development.	Same as Alternative B.	No similar action.	No similar action.	No similar action.
66	Locatable Minerals	(PHMA) Make any existing claims within the withdrawal area subject to validity exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal.	Same as Alternative B.	(PHMA) In accordance with 43 CFR 3809.100, require validity exams for mining claims within withdrawn areas.	No similar action.	No similar action.

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67	Locatable Minerals	<p>(PHMA) In plans of operations required prior to any proposed surface-disturbing activities, include the following:</p> <ul style="list-style-type: none"> • Additional effective mitigation in perpetuity for conservation (in accordance with existing policy, BLM Washington Office Instruction Memorandum 2013-142). For example, purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government. • Consider seasonal restrictions if deemed effective 	Same as Alternative B.	<p>(PHMA) In plans of operations required prior to any proposed surface-disturbing activities include as appropriate effective mitigation for conservation in accordance with existing policy (BLM Washington Office Instruction Memorandum 2013-142).</p> <p>(PHMA) Where applicable to prevent unnecessary or undue degradation, apply seasonal restrictions if deemed necessary.</p>	Same as Alternative D.	<p>GRSG-M-LM-ST-001-Standard – In PHMA, approve Plans of Operation with mitigation to protect GRSG and its habitats, consistent with the rights of the mining claimant as granted by the General Mining Law of 1872, as amended.</p> <p>GRSG-M-LM-GL-001-Guideline – In PHMA and GHMA to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under the General Mining Law of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p> <p>GRSG-M-LM-GL-002-Guideline – In PHMA and GHMA, abandoned mine sites should be closed or mitigated, subject to valid or existing rights, to reduce predation of GRSG by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>
68	Locatable	(PHMA) Where applicable to prevent unnecessary or undue	The range of alternatives is articulated in Appendix I , Required Design Features,			

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	Minerals	degradation, apply PDFs/RDFs/SDFs (Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features) as mandatory COAs.		Preferred Design Features, and Suggested Design Features.		
Nonenergy Leasable Minerals						
69	Nonenergy Leasable Minerals	(PHMA) Close PHMA to nonenergy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.	Same as Alternative B.	<p>(PHMA) Consider allowing expansion of existing nonenergy mineral leases. Where practicable, limit permitted disturbances, as defined in Appendix E, Methodology for Calculating Disturbance Caps, to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.</p> <p>Disturbance Cap Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado GRSG MZ are healthy and stable at objective levels or increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities,</p>	<p><u>New nonenergy mineral leases:</u></p> <p>No new nonenergy mineral leasing in PHMA.</p> <p><u>Existing nonenergy mineral leases:</u></p> <p>Apply the following conservation measures as COAs where applicable and feasible:</p> <p>Preclude new surface occupancy on existing leases within 1 mile of active leks (Blickley et al. 2012; Harju 2012).</p> <p>If the lease is entirely within 1 mile of an active lek, require any development to be placed in the area of the lease least harmful to sage-grouse based on vegetation, topography, or other habitat features (Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).</p>	<p>GRSG-M-NEL-GL-001-Guideline – In PHMA and GHMA, at the time of issuance of prospecting permits, exploration licenses and leases, or readjustment of leases, the Forest Service should provide recommendations to the BLM for the protection of GRSG and its habitats.</p> <p>GRSG-M-NEL-GL-002-Guideline – In PHMA and GHMA, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to GRSG and its habitat</p>

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				<p>the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases, this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.</p>	<p>Preclude new surface disturbance on existing leases within 2 miles of active leks within PHMA.</p> <p>If the lease is entirely within 2 miles of an active lek, require any development to be placed in the area of the lease least harmful to sage-grouse based on vegetation, topography, or other habitat features (Appendix D, Stipulations Applicable to Fluid Mineral Leasing and Land Use Authorizations).</p> <p>Limit permitted disturbances to 1 disturbance per 640 acres average across the landscape in PHMA. Disturbances may not exceed 3 percent in PHMA in any biologically significant unit (Colorado populations) and proposed project analysis area (Colorado MZ).</p> <p>GRSG TL-47-51 – Based on site-specific conditions, prohibit surface occupancy or disturbance within PHMA within 4 miles of a lek during lekking, nesting, and early brood-rearing (March 1 to</p>	

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70	Nonenergy Leasable Minerals	(PHMA) For existing nonenergy leasable mineral leases, in addition to the solid minerals PDFs/RDFs, follow the same PDFs/RDFs applied to Fluid Minerals when wells are used for solution mining.		The range of alternatives is articulated in Appendix I , Required Design Features, Preferred Design Features, and Suggested Design Features.	July 15).	
Salable Mineral Materials						
71	Salable Minerals	(PHMA) Close PHMA to mineral material sales.	Same as Alternative B.	(PHMA) Consider allowing existing mineral material sale sites to continue operations. Consider allowing expansion of existing mineral material sales sites. Where practicable, limit permitted disturbances, as defined in Appendix E , Methodology for Calculating Disturbance Caps, to 5 percent in any Colorado MZ. Where disturbance exceeds 5 percent in any Colorado MZ make additional, effective mitigation necessary to offset the resulting loss of GRSG habitat. Disturbance Cap Exception Criteria: Where data-based documentation is available to warrant a conclusion that GRSG populations in the applicable Colorado GRSG MZ are healthy and stable at objective levels or	(PHMA) Close PHMA to new mineral material sales. However, these areas would remain open to free use permits and the expansion of existing active pits, only if the following criteria are met: <ul style="list-style-type: none"> • The activity is within the biologically significant unit and the project area disturbance cap; • The activity is subject to the provisions set forth in the mitigation strategy (Appendix G); • All applicable required/preferred design features are applied; and, [if applicable] the activity is permissible under the regional screening criteria (Appendix H, Guidelines for Implementation). 	GRSG-M-MM-ST-001-Standard – In PHMA, do not allow new mineral material disposal or development. GRSG-M-MM-ST-002-Standard – In PHMA, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to April 30 between 6 pm and 9 am within 2 miles from the perimeter of occupied leks, if doing so is within the biologically significant unit and does not exceed the disturbance cap. GRSG-M-MM-ST-003-Standard – In PHMA and GHMA, any existing permit for mineral material operations must include appropriate requirements for operation and reclamation of the site to restore, enhance, or maintain desired habitat

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				increasing, and that the development will not adversely affect GRSG populations due to habitat loss or disruptive activities, the Authorized Officer may authorize disturbance in excess of the 5 percent disturbance cap without requiring additional mitigation. In many cases, this exception will require project proponents to fund studies necessary to secure the “data-based documentation” requirement.		conditions (Table 2.3).
72	Salable Minerals	(PHMA) Restore salable mineral pits no longer in use to meet GRSG habitat conservation objectives.	Same as Alternative B.	(ADH) Restore salable mineral pits no longer in use to meet GRSG habitat conservation objectives. Require reclamation/restoration of GRSG habitat as a viable long-term goal to improve the GRSG habitat. (Appendix G, Surface Reclamation Plan, of the Draft LUPA/EIS includes guidelines for reclamation in ecological sites that support sagebrush.)	Same as Alternative D.	No similar action.
Mineral Split Estate Objective: Utilize federal authority to protect GRSG habitat on split estate lands to the extent provided by law.						
73	Split Estate Minerals	(PHMA) Where the federal government owns the	Same as Alternative B.	(PHMA) Where the federal government owns the	(PHMA/GHMA) Where the federal government owns the	No similar action

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		mineral estate and the surface is in nonfederal ownership, apply the conservation measures applied to public lands.		mineral estate and the surface is in nonfederal ownership, apply conservation measures to the developer (lessee) of the mineral as allowable.	mineral estate in PHMA and GHMA, and the surface is in nonfederal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs/PDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	
74	Split Estate Minerals	(PHMA) Where the federal government owns the surface, and the mineral estate is in non-federal ownership, apply appropriate Fluid Mineral PDFs to surface development.	Same as Alternative B.	(PHMA) Where the federal government owns the surface, and the mineral estate is in non-federal ownership, apply appropriate PDFs to surface development.	(PHMA/GHMA) Where the federal government owns the surface and the mineral estate is in nonfederal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs/PDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	No similar action
Wildfire Suppression, Fuels Management and Fire Rehabilitation						
Fuels Management Objective: Manage the fuels program to avoid GRSG habitat loss and restore damaged habitat.						
75	Fuels Management	(PHMA) Do not reduce sagebrush canopy cover to less than 15 percent	(ADH) Design and implement fuels treatments with an emphasis on protecting existing	(PHMA) Do not reduce sagebrush canopy cover to less than 15 percent	(PHMA) Do not reduce sagebrush canopy cover to less than 15 percent	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		(Connelly et al. 2000a; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PHMA and conserve habitat quality for the species. Closely evaluate the benefits of the fuel breaks against the additional loss of sagebrush cover in the future NEPA process.	sagebrush ecosystems. Do not reduce sagebrush canopy cover to less than 15 percent (Connelly et al. 2000a; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of occupied GRSG habitat and conserve habitat quality for the species. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in the environmental assessment process.	(Connelly et al. 2000a; Hagen et al. 2007) unless a vegetation management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PHMA and conserve habitat quality for the species.	(Connelly et al. 2000a; Hagen et al. 2007) in a project area unless a vegetation management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PHMA and conserve habitat quality for the species, in consultation with the State of Colorado.	towards desired conditions (Table 2.3).
76	Fuels Management	(PHMA) Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area.	(ADH) Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present.	(PHMA) Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a Colorado MZ.	Same as Alternative D.	GRSG-FM-GL-003-Guideline – In PHMA and GHMA, fuel treatments should be designed to restore, enhance, or maintain GRSG habitat.
77	Fuels Management	(PHMA) Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.	(ADH) Allow no fuels treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.	(ADH) Retain in sagebrush habitat, for each Colorado MZ, a minimum of 70 percent of the ecological sites capable of supporting 12 percent canopy cover of Wyoming Sagebrush or 15 percent canopy cover of Mountain Sagebrush. Manage for a total disturbance cap of less than 30 percent, to include all	(PHMA) Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality, unless in consultation with the State of Colorado it is deemed necessary to reduce risk to life and property.	GRSG-GRSGH-GL-001-Guideline – Sagebrush removal in GRSG breeding and nesting and wintering habitats should be restricted unless necessary to support attainment of desired habitat conditions (Table 2.3). GRSG-FM-GL-001-Guideline – In wintering or breeding and nesting habitat,

Table 2.8
Description of Alternatives B, C, D, and BLM and Forest Service Proposed LUPAs

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				<p>loss of sagebrush from all causes including anthropogenic disturbance, wildfire, plowed field agriculture, and vegetation treatments. This cap is applied to ADH in the entire Colorado MZ. Sites capable of supporting sagebrush habitat will count against the cap until they have recovered to at least 12 percent canopy cover in Wyoming big sagebrush and 15 percent in mountain big sagebrush dominated areas (Bohne et al., 2007). Note:</p> <ul style="list-style-type: none"> • Only mappable stands of cheatgrass and Pinyon/Juniper encroachment will count against the disturbance cap. • Irrigated meadows do not count against the cap. • On a site-by-site basis, independent of cap management issues, do not allow treatments with the potential to adversely affect GRSG populations. 		sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire.
78	Fuels Management	(PHMA) Do not use fire to treat sagebrush in less than 12-inch precipitation zones	(ADH) Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g.,	(ADH) Do not use fire to treat sagebrush in less than 12-inch precipitation zones	(ADH) Do not use fire to treat sagebrush in less than 12-inch precipitation zones	GRSG-GRSGH-GL-004-Guideline – To facilitate safe and effective fire management

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		(e.g., Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site-specific variables allow, the use of prescribed fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (Brown 1982).	Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored and site-specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered, in stands where cheatgrass is a very minor component in the understory (Brown 1982).	(e.g., Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site-specific variables allow, the use of prescribed fire or natural ignition fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (Brown 1982).	(e.g., Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site-specific variables allow, the use of prescribed fire or natural ignition fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is deemed a minor threat. If prescribed fire is used in GRSG habitat, the NEPA analysis for the burn plan will address: <ul style="list-style-type: none"> • why alternative techniques were not selected as viable options; • how GRSG goals and objectives would be met by its use; • how the COT report objectives would be addressed and met; a risk assessment to address how potential threats to GRSG habitat would be	actions, in PHMA and GHMA, fuels treatments should be designed to reduce the spread and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control). GRSG-FM-ST-001-Standard – In PHMA and GHMA, do not use prescribed fire, except for pile burning, in 12-inch or less precipitation zones unless necessary to facilitate site preparation for restoration of GRSG habitat consistent with desired conditions in Table 2.3 . GRSG-FM-GL-008-Guideline – In PHMA and GHMA, roads and natural fuel breaks should be incorporated into fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
					<p>minimized.</p> <p>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 could be used to meet specific fuels objectives that would protect GRSG habitat in PHMA (e.g., creating fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, or being used as a component with other treatment methods to combat annual grasses and restore native plant communities).</p> <p>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 would need to be designed to strategically reduce wildfire risk around</p>	

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					and/or in the winter range and designed to protect winter range habitat quality.	
79	Fuels Management	(PHMA) Monitor and control invasive vegetation post-treatment.	No similar action.	(ADH) Same as Alternative B, except apply to ADH.	Same as Alternative D.	GRSG-FM-GL-009-Guideline – In PHMA and GHMA, all fire-associated vehicles and equipment should be power-washed before entering and exiting the area to minimize the introduction of undesirable invasive plant species.
80	Fuels Management	(PHMA) Rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (Wyoming Game and Fish Department 2011).	No similar action.	(ADH) Same as Alternative B, except apply to ADH.	Same as Alternative D.	No similar action
81	Fuels Management	(PHMA) Require use of native plant seeds for fuels management treatment based on availability, adaptation (site potential), probability for success (Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat objectives (Pyke 2011).	No similar action.	(ADH) Require use of native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG	Same as Alternative D.	GRSG-GRSGH-GL-003-Guideline – In PHMA and GHMA, actions and authorizations should include design features to limit the spread and effect of undesirable nonnative plant species. GRSG-GRSGH-GL-005-Guideline – In PHMA and GHMA, native plant species should be used, when possible, to restore, enhance, or maintain desired habitat conditions (Table 2.3).

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				habitat objectives (Pyke 2011).		GRSG-FM-GL-002-Guideline – In PHMA and GHMA, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance nonnative species to meet resource objectives.
82	Fuels Management	(PHMA) Design post fuels 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 management, travel management, and other uses to achieve and maintain the desired condition of ESR projects to benefit GRSG (Eiswerth and Shonkwiler 2006).	(ADH) Design post fuels management projects to ensure long-term persistence of seeded or pre-treatment native plants, including sagebrush. This may require temporary or long-term changes in livestock grazing management, wild horse management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project (Eiswerth and Shonkwiler 2006). Lands will be managed to be in the good or better ecological condition to help minimize adverse impacts of fire. Any fuels treatments will focus on interfaces with human habitation or significant existing disturbances.	Same as Alternative B.	Same as Alternative B.	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (Table 2.3).
83	Fuels Manage-	(PHMA) Design fuels management projects in	No similar action.	(ADH) Design vegetation treatments in GRSG habitats	Same as Alternative D.	GRSG-GRSGH-GL-004-Guideline – To facilitate safe

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
	ment	PHMA to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more linear versus block design (Launchbaugh et al. 2007).		to strategically facilitate firefighter safety, reduce wildfire threats, and extreme fire behavior. This may involve spatially arranging new vegetation treatments with past treatments, vegetation with fire-resistant serial stages, natural barriers, and roads in order to constrain fire spread and growth. This may require vegetation treatments to be implemented in a more linear versus block design (Launchbaugh et al. 2007).		and effective fire management actions, in PHMA and GHMA, fuels treatments should be designed to reduce the spread and intensity of wildfire in high-risk areas (i.e., areas of increased potential for ignition and in areas where there is a potential for wildfire that would be difficult for suppression resources to contain and control).
84	Fuels Management	(PHMA) During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011; Launchbaugh et al 2007). Consult with ecologists to minimize impacts to native perennial grasses. consistent with the objectives and conservation measures of the grazing section.	No similar action.	Same as Alternative B, except apply to ADH.	Same as Alternative D.	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA	
	Fuels Management	No similar action.	(ADH) Lands will be managed to be in the good or better ecological condition to help minimize adverse impacts of fire.	No similar action.	No similar action.	No similar action.	
	Fuels Management	No similar action.	(ADH) Any fuels treatments will focus on interfaces with human habitation or significant existing disturbances.	No similar action.	No similar action.	No similar action.	
Fire Operations		Objective: Manage fire to maintain and enhance large blocks of contiguous sagebrush.					
85	Fire Operations	(PHMA) In GRSG PHMA, prioritize suppression, immediately after life and property, to conserve the habitat. See Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	Same as Alternative B.	(PHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM and Forest Service, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption. See Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	(PHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements commensurate with all resource values at risk managed by the BLM and Forest Service. See Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	GRSG-FM-GL-013-Guideline – On critical fire weather days, available fire suppression resources should be pre-positioned to optimize a quick and efficient response into PHMA and GHMA.	
86	Fire Operations	(GHMA) In GHMA, prioritize suppression where wildfires threaten PHMA. See Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	No similar action.	(GHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM and Forest Service, and give preference to	(GHMA) Prioritize suppression immediately after firefighter and public safety. Consider GRSG habitat requirements commensurate with all resource values at risk managed by the BLM and Forest Service. See	See Line 85 above.	

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				GRSG habitat unless site-specific circumstances warrant an exemption. See Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	Appendix O , Greater Sage-Grouse Wildfire and Invasive Species Habitat Assessment.	
--	Fire Operations	No similar action.	No similar action.	No similar action.	In PHMA and GHMA, temporary closures would be considered in accordance with 43 CFR subpart 8364; 43 CFR subpart 8351, 43 CFR subpart 6302; 43 CFR subpart 8341.	No similar action.
Emergency Stabilization and Rehabilitation (ESR)		Objective: Use ESR to address post-wildfire threats to GRSG habitat.				
87	ESR	(ADH) Prioritize native seed allocation for use in GRSG habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or Burn Area Emergency Rehabilitation (Forest Service) projects outside of GRSG PHMA to those inside it. Use of native plant seeds for ESR or Burn Area Emergency Rehabilitation seedings is required based on availability, adaptation (site	Same as Alternative B.	(ADH) Require use of native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where attempts to use native seeds have failed, or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG	(ADH) Require use of native plant seeds that are beneficial for GRSG for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where attempts to use native seeds have failed, or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as	GRSG-FM-GL-002-Guideline – In PHMA and GHMA, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance nonnative species to meet resource objectives.

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		potential), and probability of success Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.		habitat objectives (Pyke 2011).	vegetation and GRSG habitat objectives (Pyke 2011).	
88	ESR	(ADH) Design post-fire ESR and 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 management, travel management, and other uses to achieve and maintain the desired condition of ESR and Burn Area Emergency Rehabilitation projects to benefit GRSG (Eiswerth and Shonkwiler 2006).	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	No similar action.

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
89	ESR	(ADH) Consider potential changes in climate (Miller et al. 2011) when proposing restoration seedings when using native plants. Consider collection from the warmer component of the species' current range when selecting native species (Kramer and Havens 2009).	Same as Alternative B.	No similar action.	No similar action.	No similar action.
--	ESR	No similar action.	(ADH) Establish and strengthen networks with seed growers to assure availability of native seed for ESR projects.	No similar action.	No similar action.	No similar action.
--	ESR	No similar action.	(ADH) Post fire recovery must include establishing adequately sized exclosures (free of livestock grazing) that can be used to assess recovery.	No similar action.	No similar action.	No similar action.
--	ESR	No similar action.	(ADH) Livestock grazing should be excluded from burned areas until woody and herbaceous plants achieve GRSG habitat objectives.	No similar action.	(ADH) Rest burned areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (Wyoming Game and Fish Department 2011).	No similar action.
--	ESR	No similar action.	(ADH) Where burned GRSG habitat cannot be fenced from other unburned habitat, the entire area (i.e., allotment/pasture) should be closed to grazing until recovered.	No similar action.	(ADH) Rest burned areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (Wyoming Game and Fish Department 2011).	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
--	ESR	No similar action.	(ADH) Mowing of grass will be used in any fuel break fuels reduction project (roadsides or other areas).	No similar action.	No similar action.	No similar action.
Habitat Restoration Objective: (1) Use habitat restoration as a tool to create and/or maintain landscapes that benefit GRSG; (2) Use Integrated Vegetation Management to control, suppress, and eradicate, where possible, noxious and invasive species per BLM Handbook H-1740-2; and (3) In PHMA, the desired condition is to maintain a minimum of 70 percent of lands capable of producing sagebrush with 10 to 30 percent sagebrush canopy cover. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Technical Reference 1734-6).						
90	Habitat Restoration	(ADH) Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (Meinke et al. 2009). Prioritize restoration treatments and monitoring in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance.	(ADH) Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (Meinke et al. 2009). Prioritize restoration in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).	(ADH) When planning restoration treatments in GRSG habitat, identify seasonal habitat availability and prioritize treatments in areas that are thought to be limiting GRSG distribution and/or abundance, in accordance with the Prioritization section of the narrative for Alternative D.	Same as Alternative D.	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (Table 2.3). GRSG-GRSGH-GL-006-Guideline – In PHMA, vegetation treatment projects should only be conducted if they restore, enhance, or maintain desired habitat conditions (Table 2.3).
91	Habitat Restoration	(PHMA) Include GRSG habitat parameters as defined by Connelly et al. (2000b), Hagen et al. (2007) or if available, State GRSG Conservation plans and appropriate local information in habitat restoration objectives.	(ADH) Include GRSG habitat objectives in habitat restoration projects. Make meeting these objectives within occupied GRSG habitat the highest restoration priority.	Same as Alternative B.	Same as Alternative B.	See Table 2.3 .

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NTT No.²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		Make meeting these objectives within GRSG PHMA areas a high restoration priority.				
92	Habitat Restoration	(PHMA) Require the use of native seeds for restoration based on availability, adaption (ecological site potential, and probability of success (Richards et al. 1998). Where probability of success or adapted seed availability is low, nonnative seeds may be used as long as they support GRSG habitat objectives.	Same as Alternative B.	(ADH) Require use of native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG habitat objectives (Pyke 2011).	(ADH) Require use of native plant seeds that are beneficial for GRSG, for vegetation treatments based on availability, adaptation (site potential), probability for success (Richards et al. 1998), and the vegetation management objectives for the area covered by the treatment. Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and GRSG habitat objectives (Pyke 2011).	GRSG-GRSGH-GL-005-Guideline – In PHMA and GHMA, native plant species should be used, when possible, to restore, enhance, or maintain desired habitat conditions (Table 2.3).
93	Habitat Restoration	(PHMA) Design post restoration 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 management, travel management, and other uses, to achieve and maintain the desired condition of ESR projects	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	No similar action.

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		to benefit GRSG (Eiswerth and Shonkwiler 2006).				
94	Habitat Restoration	(PHMA) Consider potential changes in climate (Miller et al. 2011) when proposing restoration seedings when using native plants. Consider collection from the warmer component of the species' current range when selecting native species (Kramer and Havens 2009).	Same as Alternative B.	No similar action.	No similar action.	No similar action.
95	Habitat Restoration	(ADH) Restore native (or desirable) plants and create landscape patterns which most benefit GRSG.	(ADH) Exotic seedings will be rehabbed, interseeded, restored to recover sagebrush in areas to expand occupied habitats.	(ADH) Retain in sagebrush habitat, for each Colorado MZ, a minimum of 70 percent of the ecological sites capable of supporting 12 percent canopy cover of Wyoming Sagebrush or 15 percent canopy cover of Mountain Sagebrush. Manage for a total disturbance cap of less than 30 percent, to include all loss of sagebrush from all causes including anthropogenic disturbance, wildfire, plowed field agriculture, and vegetation treatments. This cap is applied to ADH in the entire Colorado MZ. Sites capable of supporting	(ADH) Manage for a habitat objective that is primarily sagebrush with a mosaic of seral stages and sagebrush in all age classes. On a site-by-site basis, do not allow treatments that would adversely affect GRSG populations. Remove conifers encroaching into sagebrush habitats. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the FIAT report (Chambers et al. 2014) and	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (Table 2.3).

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
				sagebrush habitat will count against the cap until they have recovered to at least 12 percent canopy cover in Wyoming big sagebrush and 15 percent in mountain big sagebrush dominated areas (Bohne et al., 2007). Note: <ul style="list-style-type: none"> • Only mappable stands of cheatgrass and Pinyon/Juniper encroachment will count against the disturbance cap. • Irrigated meadows do not count against the cap. • On a site-by-site basis, independent of cap management issues, do not allow treatments with the potential to adversely affect GRSG populations. 	other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated. See Appendix H , Guidelines for Implementation.	
96	Habitat Restoration	(ADH) Make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) the highest priority for restoration efforts.	No similar action.	Same as Alternative B, but consider GRSG habitat requirements in conjunction with all resource values managed by the BLM/Forest Service, and give preference to GRSG habitat unless site-specific circumstances warrant an exemption.	Same as Alternative D.	GRSG-GRSGH-ST-001-Standard – Design habitat restoration projects to move towards desired conditions (Table 2.3).
97	Habitat Restoration	(ADH) In fire prone areas where sagebrush seed is required for GRSG habitat	Same as Alternative B.	Same as Alternative B. Work with local plant material centers and/or	(ADH) Authorize local sagebrush seed collection to support local restoration	No similar action.

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NTT No. ²	Program Area	Alternative B	Alternative C	Alternative D	BLM Proposed LUPA	Forest Service Proposed LUPA
		restoration, consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) and are a priority for protection from outside disturbances.		groups to establish seed harvest areas and local seed stocks.	efforts.	
--	Habitat Restoration	No similar action.	(ADH) Composition, function, and structure of native vegetation communities will be consistent with the reference state of the appropriate Ecological Site Description and will provide for healthy, resilient, and recovering GRSG habitat components.	No similar action.	No similar action.	No similar action.
--	Habitat Restoration	No similar action.	(ADH) Avoid sagebrush reduction/treatments to increase livestock or big game forage in occupied habitat and include plans to restore high-quality habitat in areas with invasive species.	No similar action.	No similar action.	No similar action.
--	Habitat Restoration	No similar action.	(ADH) Ensure that soil cover and native herbaceous plants are at their Ecological Site Description potential to help protect against invasive plants.	No similar action.	No similar action.	No similar action.
Areas of Critical Environmental Concern (ACECs)/Zoological Areas						
--	ACECs	No similar action.	(PHMA) Designate all PHMA as the GRSG Habitat ACEC/Zoological Area.	No similar action.	No similar action.	No similar action.

¹All Designated Habitat (ADH) includes Priority Habitat Management Areas (PHMA), General Habitat Management Areas (GHMA), and Linkage/Connectivity Habitat Management Areas (LCHMA).

²NTT is the "National Technical Team" as it relates to the "Report on National Greater Sage-Grouse Conservation Measures" released on December 21, 2011 (NTT 2011).

2.11 ALTERNATIVES ELIMINATED FROM DETAILED ANALYSIS

The following alternatives were considered but were not carried forward for detailed analysis because (1) they would not fulfill the requirements of FLPMA, NFMA or other existing laws or regulations, (2) they did not meet the purpose and need, (3) they were already part of an existing plan, policy, or administrative function, or (4) they did not fall within the limits of the planning criteria. FLPMA requires the BLM and Forest Service to manage the public lands and resources in accordance with the principles of multiple use and sustained yield.

2.11.1 Area of Critical Environmental Concern Proposals Applied to All Designated Habitat

Two public-proposed alternatives for designations of new ACECs/Zoological Areas were submitted to the BLM/Forest Service during the public scoping period:

- ADH would be an ACEC/Zoological Area
- PHMA would be an ACEC/Zoological Area

The PHMA proposal was found to meet ACEC relevance and importance criteria by a team of BLM biologists and was carried forward under Alternative C. See **Appendix J**, Areas of Critical Environmental Concern Relevance and Importance Rationale, for the relevance and importance worksheet.

The proposal to designate ADH as an ACEC did not meet relevance and importance criteria. Refer to **Appendix J**, Areas of Critical Environmental Concern Relevance and Importance Rationale, for the relevance and importance worksheet for GHMA and LCHMA.

ACECs differ from other special designations, such as Wilderness Study Areas, in that designation by itself does not automatically prohibit or restrict other uses in the area.

2.11.2 Garfield County Alternative

On March 21, 2013, Garfield County, Colorado, submitted their Greater Sage-Grouse Conservation Plan to the BLM. Garfield County formally requested that this alternative be included as the preferred alternative for the Garfield County portion of the Northwest Colorado Draft GRSG LUPA/EIS. The alternative is presented in Appendix D of the Draft LUPA/EIS, Garfield County Greater Sage-Grouse Conservation Plan, but has not been analyzed as a separate alternative in detail primarily because it is contained within the existing range of alternatives and is not significantly distinguishable from those alternatives. The Garfield County alternative is more focused regarding “modeled suitable habitat” than Alternative A. The Garfield County alternative identifies a smaller amount of priority habitat but applies similar restrictions to the BLM/Forest Service preferred alternative (Alternative D).

Garfield County's effort was motivated by their observation that the GRSG habitat in the county was "naturally fragmented" relative to the expanses of sagebrush-dominated rangeland further north. Figure 6 of the Garfield County alternative is noteworthy because it depicts the lands to be managed with specific conservation measures under the alternative. The natural fragmentation concept is supported by **Figure 2-1** (in **Appendix A**, Figures), which identifies ecological sites in PHMA that support stands of sagebrush. It is evident from this figure that the GRSG in Garfield County and southern Rio Blanco County use sagebrush habitat that is relatively discontinuous.

Garfield County's valid observations, however, fail to allow for the connectivity of habitat necessary to maintain the GRSG population. The Parachute-Piceance-Roan population in northwest Colorado is relatively small and isolated in the southernmost extent of the species' range. Birds in this population have been documented to use atypical habitat, including sagebrush/mixed shrub communities where the mountain shrub component is greater than 10 percent (Apa 2010). PHMA mapped by CPW have incorporated known seasonal bird movements and habitat use within this population.

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