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Greater Sage-grouse Proposed Land Management Plan Amendments (LMPA) and Final Environmental Impact Statement (FEIS) for the Intermountain and Rocky Mountain Regions



Idaho (Boise, Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests and Curlew National Grassland); Nevada (Humboldt-Toiyabe National Forest); Utah (Ashley, Dixie, Fishlake, Manti-La Sal, and Uinta-Wasatch-Cache National Forests); Wyoming (Bridger-Teton National Forest); and Wyoming/Colorado (Medicine Bow-Routt National Forest and Thunder Basin National Grassland)

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Greater Sage-grouse Proposed Land Management Plan Amendments (LMPA) and Final Environmental Impact Statement (FEIS) for the Intermountain and Rocky Mountain Regions

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Abstract: The proposed land management plan amendments (LMPAs) and final environmental impact statement (FEIS) has been prepared by the United States Department of Agriculture (USDA) Forest Service (FS) with input from cooperating agencies. The purpose of this LMPA is to incorporate new information to improve the clarity, efficiency, and implementation of the 2015 Greater Sage-Grouse (GRSG) Plan Amendments, including better alignment with Bureau of Land Management (BLM) and state plans, in order to benefit GRSG conservation at the landscape scale. The FS is considering amendments to 19 Land Management Plans (LMPs) in Colorado, Idaho, Nevada, Utah, and Wyoming. The FEIS describes and analyzes three alternatives for managing GRSG habitat on approximately 5.2 million acres of National Forest System (NFS) lands with GRSG habitat administered by the FS.

Three alternatives are being analyzed. In the *No Action Alternative*, use of public lands and resources would continue to be managed under current FS LMP direction, as amended in 2015. The *Proposed Action Alternative* makes modifications to the No Action Alternative to incorporate new information to improve the clarity, efficiency, and implementation of GRSG plans, in order to benefit GRSG conservation on the landscape scale. This alternative was developed to promote continued collaboration with the BLM, states, and stakeholders to improve management, compatibility, and consistency between federal management plans and other plans and programs at the state level, and to continue to provide protection of GRSG habitat. This is the agency's preferred alternative, though this does not constitute a final decision and there is no requirement that the preferred alternative identified in the FEIS be selected as the agency's decision in the Record of Decision (ROD). The *State of Utah Alternative* includes all aspects of the Proposed Action Alternative, with two modifications to LMPs within the state of Utah. Specifically, the FS would remove the General Habitat Management Area (GHMA) designation from NFS lands in Utah and would also remove the Anthro Mountain Habitat Management Area from designation on the Ashley National Forest, but not re-designate it as Priority Habitat Management Area (PHMA).

National Forests and Grasslands in the Planning Area: Idaho (Boise, Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests and Curlew National Grassland); Nevada (Humboldt-Toiyabe National Forest); Utah (Ashley, Dixie, Fishlake, Manti-La Sal, and Uinta-Wasatch-Cache National Forests); Wyoming (Bridger-Teton National Forest and Thunder Basin National Grassland); and Wyoming/Colorado (Medicine Bow-Routt National Forest)

Counties in the Planning Area: Colorado (Jackson and Routt); Idaho (Blaine, Bear Lake, Bonneville, Butte, Camas, Caribou, Cassia, Clark, Custer, Elmore, Fremont, Lemhi, Oneida, Power, and Twin Falls); Nevada (Elko, Eureka, Humboldt, Lander, Nye, and White Pine); Utah (Beaver, Box Elder, Cache, Carbon, Daggett, Duchesne, Emery, Garfield, Iron, Juab, Morgan, Piute, Rich, Sanpete, Sevier, Summit, Tooele, Uintah, Utah, Wasatch, Wayne, and Weber); Wyoming (Albany, Campbell, Carbon, Converse, Crook, Fremont, Lincoln, Natrona, Niobrara, Sublette, Sweetwater, Teton, Uinta, and Weston)

Pre-decisional Administrative Review Process (Objections): The Forest Service will use the predecisional administrative review process, also referred to as the objection process described in 36 CFR 219 Subpart B of the 2012 planning rule. This process gives an individual or entity an opportunity for an independent Forest Service review and resolution of issues before the approval of a plan revision; this subpart identifies who may file objections to a plan revision, the responsibilities of the participants in an objection, and the procedures that apply to the review of the objection. Generally, individuals and entities who have submitted substantive formal comments related to this plan revision during the opportunities for public comment for this decision may file an objection.

How to Submit Objections: Regardless of method of delivery, *please be explicit which state-specific Record of Decision (ROD) the objection is for, and include the state in the subject line: "Objection regarding the Greater Sage-grouse Draft ROD and LMPA for NFS Land in [insert applicable state]."*

1. Electronic objections must be submitted to the Objection Reviewing Officer via the CARA objection web form: <https://cara.ecosystem-management.org/Public/CommentInput?project=52904>. Electronic submissions must be submitted in a format (Word, PDF, or Rich Text) that is readable and searchable with optical character recognition software.
2. Faxed objections must be sent and addressed to "Objection Reviewing Officer" The fax coversheet should specify the number of pages being submitted and the subject line. The fax number is 801-625-5277.
3. Hardcopy objections may be submitted by regular mail to the following address: USDA Forest Service, Attn: Objection Reviewing Officer, 1400 Independence Ave. SW, EMC-PEEARS, Mailstop 1104, Washington, DC 20250.
4. Hardcopy objections also may be submitted by carrier or hand deliveries to the following address: USDA Forest Service, Attn: Objection Reviewing Officer, 210 14th Street, SW, EMC-PEEARS, Mailstop 1104, Washington, DC 20250. Office hours are Monday through Friday, 8:00am to 5:00pm, excluding Federal holidays. Carrier deliveries may call 202-791-8488 during regular business days and hours, above, to coordinate delivery of objections.
5. Individuals who need to use telecommunication devices for the deaf (TDD) to transmit objections may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8:00 a.m. and 8:00 p.m., Eastern Standard Time, Monday through Friday.

Date Objections Must Be Received: Objections, including attachments, must be filed within 60 days following the day after publication of the notice of the opportunity to object in the *Salt Lake Tribune* and the *Denver*

Post, the newspapers of record. The objection period begins the first day after the publication date of the notice. Objections or attachments received after the 60-day objection period will not be considered. The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object to this land management plan revision should not rely upon dates or timeframe information provided by any other source.

File Code: 1950
Date: JUN 26 2019

Dear Reader:

The Greater Sage-grouse Draft Record of Decision (ROD) and Land Management Plan Amendment and Final Environmental Impact Statement (FEIS) for National Forest System (NFS) Land located in the Intermountain and Rocky Mountain Regions is available for your review. The Forest Service prepared these documents in consultation with cooperating agencies and in accordance with the National Environmental Policy Act of 1969, as amended; the National Forest Management Act of 1976, 36 CFR 219; and all other applicable law and policy. The documents are available on the project website located at: <https://www.fs.usda.gov/detail/r4/home/?cid=stelprd3843381>. Hard copies are available for public review by request.

The planning area includes National Forests and Grasslands in Idaho (Boise, Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests and Curlew National Grassland); Nevada (Humboldt-Toiyabe National Forest); Utah (Ashley, Dixie, Fishlake, Manti-La Sal, and Uinta-Wasatch-Cache National Forests); Wyoming (Bridger-Teton National Forest); and Wyoming/Colorado (Medicine Bow-Routt National Forest and Thunder Basin National Grassland) and encompasses approximately 5.2 million acres of Greater Sage-Grouse (GRSG) habitat on NFS lands in the Intermountain and Rocky Mountain Regions. One FEIS was prepared for all five states in the planning area; however, a separate draft ROD was prepared for each state.

Three alternatives were analyzed. In the *No Action Alternative*, use of public lands and resources would continue to be managed under current Forest Service Land Management Plan (LMP) direction, as amended in 2015. The *Proposed Action Alternative* (the preferred alternative) makes modifications to the No Action Alternative to incorporate new information to improve the clarity, efficiency, and implementation of GRSG plans, in order to benefit GRSG conservation on the landscape scale. This alternative was developed to promote continued collaboration with the Bureau of Land Management, states, and stakeholders to improve management, compatibility, and consistency between federal management plans and other plans and programs at the state level, and to continue to provide protection of GRSG habitat. The *State of Utah Alternative* includes all aspects of the Proposed Action Alternative, with two modifications to LMPs within the state of Utah. Specifically, the US Forest Service would remove the General Habitat Management Area designation from NFS lands in Utah and would also remove the Anthro Mountain Habitat Management Area from designation on the Ashley National Forest, but not re-designate it as Priority Habitat Management Area.

The Forest Service will use the predecisional administrative review process, also referred to as the objection process described in 36 CFR 219 Subpart B of the 2012 planning rule. This process gives an individual or entity an opportunity for an independent Forest Service review and resolution of issues before the approval of a plan revision; this subpart identifies who may file objections to a plan revision, the responsibilities of the participants in an objection, and the procedures that apply to the review of the objection. Generally, individuals and entities who have submitted substantive formal comments related to this plan revision during the opportunities for public comment for this decision may file an objection. Information regarding submission of objections is located in each Draft ROD.



Dear Reader

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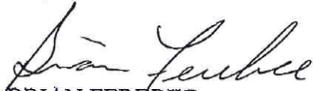
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Thank you for your continued interest in the Greater Sage-Grouse Proposed Land Management Plan Amendments for the Intermountain and Rocky Mountain Regions. We appreciate the information you contribute to the process.

Sincerely,



NORA B. RASURE
Regional Forester



BRIAN FEREBEE
Regional Forester

Acronyms and Terms

Term or Acronym	Full Name or Phrase
BLM	Bureau of Land Management
BSU	biologically significant unit
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Colorado
CHMA	Connectivity Habitat Management Area
DC	desired condition (forest plan component)
DEIS	draft environmental impact statement
EIS	environmental impact statement
EO	Executive Order
ESA	Endangered Species Act of 1973
FEIS	final environmental impact statement
2015 GRSG FEIS	Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement
FS	Forest Service
FLMPA	Federal Land Management and Policy Act
FR	Federal Register
GHMA	general habitat management area
GIS	geographic information system
GL	Guideline (forest plan component)
GRSG	greater sage-grouse
HMA	Habitat Management Area
ID	Idaho
IHMA	Important Habitat Management Area
Intermountain Region	USDA Forest Service Intermountain Region (also known as Region 4)
LMP	land management plan
LMPA	land management plan amendment
MA	management approach (optional forest plan content)
NEPA	National Environmental Policy Act
NV	Nevada
NF	National Forest
NFMA	National Forest Management Act of 1976
NFS lands	National Forest System lands
NG	National Grassland
NOI	Notice of Intent
Northern Region	USDA Forest Service, Northern Region (also known as Region 1)
NRCS	Natural Resources Conservation Service
NSO	no surface occupancy
O	objective (forest plan component)
OHMA	Other Habitat Management Area
PHMA	Priority Habitat Management Area
Planning Rule	2012 Planning Rule as Amended

Term or Acronym	Full Name or Phrase
Rocky Mountain Region	USDA Forest Service, Rocky Mountain Region (also known as Region 2)
ROD	record of decision
2015 GRSR ROD and LMPA	Greater Sage-grouse Record of Decision and Land Management Plan Amendments
SFA	sagebrush focal area
SO	Secretarial Order
ST	standard (forest plan component)
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UT	Utah
WY	Wyoming

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Executive Summary

ES 1 INTRODUCTION

The United States Department of Agriculture (USDA), Forest Service (FS) has prepared proposed land management plan amendments (LMPAs) and a final environmental impact statement (FEIS) to describe in detail three alternatives for analyzing the effects of changing conservation measures for greater sage-grouse (GRSG) as well as to incorporate new information and to improve the clarity, efficiency, and implementation of the conservation measures of the 2015 Greater Sage-Grouse Plan Amendments. The FEIS describes the affected environment and discloses environmental effects of the alternatives.

Greater sage-grouse is a species dependent on sagebrush steppe ecosystems. Over the past two decades, these ecosystems have been managed in partnership by state wildlife agencies, federal agencies, local authorities, and many others to conserve GRSG and its habitat. The FS and the US Department of the Interior (USDI), Bureau of Land Management (BLM) have broad responsibilities to manage federal lands and resources for the public benefit.

In 2010, a United States Fish and Wildlife Service (USFWS) listing decision prompted a FS and BLM joint planning effort to amend FS land management plans (LMPs) and BLM equivalents to incorporate conservation measures to support the continued existence of GRSG. This effort culminated in the FS Greater Sage-grouse Records of Decisions (2015 GRSG ROD and LMPA) that were signed on September 16, 2015.

On October 2, 2015, the USFWS found that listing the GRSG under the Endangered Species Act (ESA) was not warranted (80 FR 59858). The USFWS based its finding on regulatory certainty from the conservation measures in the FS and BLM GRSG land management plan amendments and revisions, as well as on other private, state, and federal conservation efforts.

In 2017, the Secretary of the Interior issued two Secretarial Orders (SO) 3349 and 3353. SO 3349 ordered agencies to reexamine practices to better balance conservation strategies and policies with the need of creating jobs. The SO 3353 was issued with a purpose of enhancing cooperation among 11 western states and the BLM in managing and conserving GRSG. It also directed an Interior Review Team, consisting of the BLM, the USFWS, and the US Geological Survey (USGS), to coordinate with the Sage-Grouse Task Force (composed of state agencies, BLM, USFWS, FS, and the Natural Resources Conservation Service (NRCS)). A June 14, 2017 letter from the Forest Service Chief directed FS Regions 1, 2, and 4 to cooperate in the review. On August 4, 2017 in response to SO 3353, the Interior Review Team submitted its Report which recommended modifying the GRSG plans and associated policies to better align with individual state plans. On August 4, 2017, the Secretary issued a memo to the Deputy Secretary directing the BLM to implement the recommendations found in the report.

To provide an opportunity for public comment on GRSG management issues that could warrant land management plan amendments, the FS published the following in the Federal Register:

- A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) (82 FR 55346, November 21, 2017).
- A Supplemental NOI to prepare an EIS (83 FR 28608, June 20, 2018).
- A corrected Supplemental NOI to clarify that the FS is not proposing to amend LMPs for NFS

lands in Montana (83 FR 30909, July 2, 2018).

- A notice to extend the Supplemental NOI public comment period for an additional 14 days (83 FR 37460, August 1, 2018).
- A Notice of Availability (NOA) for the Greater Sage-grouse Proposed LMPAs and Draft EIS for the Intermountain and Rocky Mountain Regions (83 FR 50362 and 83 FR 50331, October 5, 2018).

The 90-day comment period per the 2018 NOA drew 33,192 comment letters, of which 622 contained unique and substantially different comments. The FS received letters, emails, form letters, and public comment forms from Tribes, individuals, organizations, agencies, businesses, and groups. The Forests analyzed 2,935 comments from the 622 comment letters to identify the significant issues driving the alternatives. A summary of the responses to comments is included in Appendix I – Response to Comments. A spreadsheet containing all unique comments and response to comments is available at: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904

The FS continues to build upon its commitment to on-the-ground management to promote conservation through close collaboration with State governments, local communities, private landowners, and other stakeholders. The FS is a cooperating agency with the BLM as they undertake a similar action.

ES 2 PURPOSE OF AND NEED FOR ACTION

The purpose and need for this planning action helps define the scope of proposed alternative actions and issues the agency must analyze. The National Forest Management Act of 1976 (NFMA) directs the FS to develop, maintain, and, as appropriate, revise LMPs which guide management of NFS lands (16 USC 1604(a)).

The FS published the 2017 NOI, 2018 Supplemental NOI, and 2018 NOA to consider the possibility of amending LMPs for GRSG that were originally amended in 2015 in the states of Colorado, Idaho, Nevada, Wyoming, and Utah (2015 GRSG ROD and LMPA). The need for further plan amendments is that the FS has gained new information and understanding from comments received from the NOIs and proposed LMPAs and DEIS, within-agency scoping, new science and research, and coordination with the Sage Grouse Task Force. The purpose of the proposed action is to incorporate new information to improve the clarity, efficiency, and implementation of the 2015 Greater Sage-Grouse Plan Amendments, including better alignment with BLM and state plans, in order to benefit GRSG conservation at the landscape scale.

ES 3 ISSUES AND RELATED RESOURCE TOPICS IDENTIFIED THROUGH SCOPING

The FS evaluated comments received to determine whether they constituted issues relevant to this planning process. Planning issues can drive the development of an alternative, may involve resources that are adversely affected by the proposed action, or may concern conflicts about alternative uses of available resources. These planning issues provide focus for the analysis and are used to compare the environmental effects of the alternatives. More detailed information can be found in Chapter 1 of this FEIS.

The sections below outline how the FS addressed issues and related resource topics raised during scoping and how they are considered in this FEIS. Generally, they fall into the following categories:

- Issues and related resource topics retained for further consideration in this FEIS.
- Clarification of the 2015 Greater Sage-Grouse Plan Amendments.

- Issues and resource topics not carried forward for additional consideration or analysis in this FEIS.

ES 3.1 ISSUES AND RELATED RESOURCE TOPICS RETAINED FOR FURTHER CONSIDERATION IN FEIS

The FS developed alternatives based on new issues raised during scoping that are addressed in the Proposed Action Alternative or State of Utah Alternative. In some cases, issues were previously analyzed in alternatives in the 2015 GRSF FEIS, but additional analysis is needed. In other cases, the issues were not previously considered, and analysis is needed in this FEIS.

Table ES-1 contains the issues and related resource topics that could be affected that were identified during scoping. These issues are carried forward for further analysis in this FEIS.

Table ES-1. Issues carried forward for further analysis.

Issues	Resource Topics	States
Habitat Management Areas Designation		
Identify a process for evaluating and updating habitat management area (HMA) boundaries	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, NV, UT, WY
Focus protection in PHMAs relative to other HMA designations	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, WY
Change the Anthro Mountain HMA designation to PHMA designation	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	UT
Eliminate the GHMA and Anthro Mountain designation	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	UT

Issues	Resource Topics	States
Changes in HMA boundaries	Special Status Species-Greater Sage-Grouse (and Habitat)	CO, NV, WY
Elimination of Sagebrush Focal Area Designations/Withdrawals		
Sagebrush Focal Areas (SFAs) duplicate many protections that are already in place through the designation of priority habitat management areas (PHMAs) in the absence of mineral withdrawals	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	CO, ID, NV, UT, WY
Changing Net Conservation Gain and Adjustment of Compensatory Mitigation Frameworks		
Net conservation gain changed to no net loss of habitat to align with the state mitigation strategies	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	CO, ID, UT, WY
Alignment with the Idaho Governor’s Task Force Plan Prioritization of protection of PHMA by emphasizing compensatory mitigation in IHMA Updated mitigation framework	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	ID
Alignment with the Wyoming Compensatory Mitigation Framework Updated mitigation framework	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	WY
Alignment with the State of Nevada’s mitigation strategy Updated mitigation strategy	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	NV
Alignment with State of Utah Compensatory Mitigation Program	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	UT
Modifying Lek Buffers		
Prioritization of protection of PHMA by allowing flexibility in lek buffer application	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy)	ID

Issues	Resource Topics	States
Specifying active or pending leks rather than occupied leks	Special Status Species-Greater Sage-Grouse (and Habitat)	NV
Including Waivers, Exceptions, and Modifications on NSO Stipulations		
The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources	CO
The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources	ID
The no surface occupancy (NSO) exception includes appropriate use of mitigation hierarchy Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources	NV
Exceptions must result in no effects to GRSG or habitat or all impacts could be offset through mitigation Clarified geothermal leases included in fluid leases Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources	UT
Connectivity habitat added to NSO or surface disturbing activities being not authorized within 0.6 miles of occupied leks	Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources	WY
Modifying Desired Conditions		
Local ecological site potential considered, broader description of appropriate GRSG habitat requirements identified, and desired conditions table values moved to appendix	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	NV, WY

Issues	Resource Topics	States
Updating desired condition table values	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	UT
Changing Livestock Grazing Guidelines		
Replace specific grass-height guidelines with guidelines to adjust livestock management as needed if livestock grazing is limiting achievement of GRSG habitat conditions	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Livestock Grazing	CO, ID, NV, UT, WY
Replace specific grass-height guidelines with guidelines for riparian and meadow areas.	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Livestock Grazing	NV
Modify language regarding water developments in HMAs	Special Status Species-Greater Sage-Grouse (and Habitat), Riparian Areas and Wetlands and Water Resources, Livestock Grazing	ID, NV, UT
Adaptive Management Review Process		
Allow for process for reviewing or reverting to an adaptive management response when causal factor is resolved	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, UT, WY
Ensure federal, state, and local partners are part of the causal factor analysis process Identify process to evaluate and respond to hard and soft trigger adaptive management responses	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	NV
Treatment of Invasive Species		
Emphasize treatment of invasive plant species in PHMA	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	ID, NV, UT, WY

Issues	Resource Topics	States
Modifying Disturbance Caps		
Calculate the 3% disturbance cap at the BSU level, rather than at BSU and project-level.	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID
Consistency with the 2012 Planning Rule		
Identification of the use of management approaches	Special Status Species-Greater Sage-Grouse (and Habitat)	CO, ID, NV, UT, WY
Noise Standards		
Specify HMA designations when applying noise standard	Special Status Species-Greater Sage-Grouse (and Habitat)	ID, UT, WY

ES 3.2 CLARIFICATION OF THE 2015 GREATER SAGE-GROUSE PLAN AMENDMENTS

Some commenters requested clarification on the implementation of the 2015 Greater Sage-Grouse Plan Amendments. No new analysis is included in this FEIS, as these decisions were analyzed in the 2015 GRSG FEIS. The clarifying language for these planning decisions is displayed in this planning document in Chapter 2 to communicate how these issues are being addressed.

ES 3.3 ISSUES AND RESOURCE TOPICS NOT CARRIED FORWARD FOR ADDITIONAL CONSIDERATION OR ANALYSIS IN THIS FEIS

Some issues do not require additional analysis because they were analyzed in the 2015 GRSG FEIS, no significant new information has emerged, or they are not affected by the changes proposed in Chapter 2 of this FEIS. The impacts of implementing the alternatives in this FEIS are within the range of impacts of alternatives previously analyzed in the 2015 GRSG FEIS. Below is a list of issues that were analyzed in the 2015 GRSG FEIS.

- Restrictions on Right of Ways (ROWs) and infrastructure
- Wind energy development in PHMA
- Retention of lands as identified as HMAs in federal ownership
- Prioritization of fluid mineral leases outside of PHMA and GHMA in Colorado, Idaho, Nevada, and Wyoming
- Vegetation treatments and wildfire response
- Habitat assessment framework
- Contribution of disturbance caps toward GRSG conservation objectives

The following issues were evaluated, but dismissed as part of the 2015 GRSG FEIS. For the same reasons they were dismissed in the 2015 GRSG FEIS, similarly they are not carried forward for detailed analysis in this FEIS.

- Hunting greater sage-grouse
- Predator control
- Aircraft overflights
- National livestock grazing policies
- Warranted but precluded Endangered Species Act decision
- FS Inventoried Roadless Areas and recommended Wilderness

ES 4 ALTERNATIVES CONSIDERED

Alternative development and analysis is the heart of an EIS. The alternatives considered in this document address all the issues brought forward by the public and considered by the FS. The comparative analysis between alternatives establishes a framework for decision makers to understand important trade-offs and identify the most effective way to meet the purpose and need.

ES 4.1 ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, the FS would not amend LMPs amended by the 2015 *Greater Sage-grouse Record of Decision and Land Management Plan Amendments* (For a complete list, see Chapter 1, Table 1-1). Greater sage-grouse habitat would continue to be managed under current LMP direction.

Desired conditions and objectives for FS administered lands and federal mineral estate would not change. Allowable uses and restrictions would also remain the same, as they pertain to such activities as mineral leasing and development, recreation, lands and realty, and livestock grazing. This alternative also maintains the designation of sagebrush focal areas (SFAs), although the BLM has cancelled the proposal to withdraw SFAs from locatable mineral entry ([Notice of Cancellation](#), 82 *Federal Register* 195, October 11, 2017, p. 47248).

ES 4.2 ALTERNATIVE 2 – PROPOSED ACTION

This alternative makes modifications to the No Action Alternative to improve the clarity, efficiency, and implementation of GRSG plans, including better alignment with BLM and state plans, in order to benefit GRSG conservation on the landscape scale.

This alternative was developed to promote continued collaboration with the BLM, states, and stakeholders to improve management, compatibility, and consistency between federal management plans and other plans and programs at the state level, and to continue to provide protection of GRSG habitat. This enhanced cooperation between the FS and the States is expected to improve management and coordination with states across the range of GRSG. The modifications made by this alternative include updating and making adjustments to HMA boundaries; removing SFA designations; removing the Anthro Mountain HMA designation and replacing it with PHMA designation; incorporating casual factor review and response processes into the adaptive management strategies; changing net conservation gain to no net loss of habitat and aligning better with states' mitigation strategies; modifying lek buffers; revising livestock management guidelines to replace grass height requirements with standardized evaluation methods; clarifying the restriction on water developments within HMAs; emphasizing treatment of invasive plants in PHMAs; being consistent with the 2012 planning rule; and noise standards. These modifications differ among states in the planning area.

Consistent with the [Notice of Cancellation](#) of the BLM's application to withdraw SFAs from locatable mineral entry (82 *Federal Register* 195, October 11, 2017, p. 47248), this alternative would also remove the recommendation for withdrawal.

ES 4.3 ALTERNATIVE 3 – STATE OF UTAH ALTERNATIVE

This alternative incorporates all aspects of Alternative 2, except it incorporates two additional modifications to LMPs within the State of Utah. Specifically, the USFS would remove the GHMA designation from NFS lands in Utah and would also remove the Anthro Mountain HMA from designation on the Ashley National Forest, and not re-designate it as PHMA.

ES 5 COMPARISON OF ALTERNATIVES

This section provides a summary comparison of the No Action, Proposed Action, and State of Utah Alternatives. A detailed description of the issues, alternatives, and environmental consequences is included in the FEIS. Table ES-2 shows acres and changes to HMA designations (See Chapter 4, Section 4.5.1) and elimination of SFA designations/withdrawals (See Chapter 4, Section 4.5.2). Table ES-3 show a comparative summary of alternatives. A more detailed description of the issue and alternatives are included in Chapters 2 and 4.

Table ES-2. Comparison summary of acres of HMAs by alternative.

Alternatives	Colorado	Acreage Change	Idaho	Acreage Change	Nevada	Acreage Change	Utah	Acreage Change	Wyoming	Acreage Change	Total Acreage Change
No Action Alternative											
PHMA	1,400	-	342,000	-	994,800	-	782,100	-	419,600	-	-
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	797,800	-	28,100	-	609,800	-	-
OHMA	-	-	-	-	625,600	-	-	-	-	-	-
Anthro Mountain	-	-	-	-	-	-	42,100	-	-	-	-
SFA	-	-	248,000	-	566,800	-	47,300	-	2,800	-	-
Total	12,400	-	1,105,800	-	2,418,100	-	852,300	-	1,029,400	-	-
Proposed Action Alternative											
PHMA	1,400	-	342,000	-	889,600	-105,200	824,200	42,200	319,400	-100,300	-163,300
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	1,096,000	298,300	28,100	-	514,300	-94,600	203,700
OHMA	-	-	-	-	426,800	-198,800	-	-	-	-	-198,800
CHMA	-	-	-	-	-	-	-	-	6,400	-	-
Anthro Mountain	-	-	-	-	-	-	-	-42,100	-	-	-42,100
Total	12,400	-	1,105,800	-	2,412,400	-5,700	852,400	100	840,100	-194,900	-200,400
State of Utah Alternative											
PHMA	1,400	-	342,000	-	889,600	-	782,100	-42,200	319,400	-	-42,200
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	1,096,000	-	-	-28,100	514,300	-	-28,100
OHMA	-	-	-	-	426,800	-	-	-	-	-	-
CHMA	-	-	-	-	-	-	-	-	6,400	-	-
Total	12,400	-	1,105,800	-	2,412,400	-	782,100	-70,300	840,100	-	-70,300

Acres rounded to the nearest hundred.

No Action Alternative - Source: FS GIS 2015; Proposed Action - Source: FS GIS 2018; State of Utah Alternative - Source: FS GIS 2018

Table ES-3. Comparison of Alternatives by issue.

State	No Action Alternative	Proposed Action Alternative	State of Utah Alternative
Habitat Management Area Designations (See Chapter 4, Section 4.5.1)			
Idaho, Nevada, Utah, Wyoming	Maps updated through LMPA/revision as appropriate	Management approach identifies process for updating maps	Management approach identifies process for updating maps
Idaho, Wyoming, Utah	Similar protections in HMAs	Focus protection in PHMAs relative to other HMA designations	Focus protection in PHMAs relative to other HMA designations
Utah	Anthro Mountain has its own habitat designation	Anthro Mountain becomes PHMA	Remove GHMA and Anthro Mountain habitat designations
Elimination of Sagebrush Focal Area Designations/Withdrawals (See Chapter 4, Section 4.5.2)			
Colorado, Idaho, Nevada, Utah, Wyoming	Included SFA designations	Removed SFA designations	Removed SFA designations
Changing Net Conservation Gain (See Chapter 4, Section 4.5.3)			
Colorado	Net Conservation Gain	No Net Habitat Loss	--
Idaho	Net Conservation Gain	No Net Habitat Loss	--
Nevada	Net Conservation Gain	Net Conservation Gain	--
Utah	Net Conservation Gain	No Net Habitat Loss	No Net Habitat Loss
Wyoming	Net Conservation Gain	No Net Habitat Loss	--
Modifying Lek Buffers (See Chapter 4, Section 4.5.4)			
Idaho	PHMA, IHMA, and GHMA: 2 miles	PHMA: 2 miles IHMA: <ul style="list-style-type: none"> • 2 miles (communication/ metrological) • 1.2 miles (transmission lines) • 0.6 miles (distribution lines) GHMA: 0.6 miles	--
Nevada	Use of active and occupied lek terminology	Use of active and pending lek terminology	--
Colorado, Utah, Wyoming	Not Applicable (N/A)	N/A	N/A
Including Waivers, Exceptions, and Modifications on NSO Stipulations (See Chapter 4, Section 4.5.5)			
Colorado	Exception could be granted by the authorized officer with unanimous concurrence from a team of agency GRSG experts from the U.S. Fish and Wildlife Service.	Exception could be granted by the authorized officer. Will be reviewed by the Technical and Policy Teams.	--
Idaho	Exception could be granted by the authorized officer with unanimous concurrence from a team of agency GRSG experts from	Exception could be granted by the authorized officer. Will be reviewed by the Technical and Policy Teams.	--

	the U.S. Fish and Wildlife Service.		
Nevada	Exception could be granted by the authorized officer with unanimous concurrence from a team of agency GRSG experts from the U.S. Fish and Wildlife Service.	Exception could be granted by the authorized officer.	--
Utah	Exception could be granted by the authorized officer with unanimous concurrence from a team of agency GRSG experts from the U.S. Fish and Wildlife Service.	Exception could be granted by the authorized officer.	Exception could be granted by the authorized officer.
Wyoming	N/A	N/A	N/A
Idaho	Exception provides a clear net conservation gain to the GRSG.	Exception could be granted if population trend not engaging adaptive management triggers, result in no net loss of habitat, impacts could be fully offset through mitigation, or co-located. Appropriate controlled surface use and timing limitation stipulations would be included, and the project will not exceed the disturbance cap	--
Nevada	Granting the exception provides an alternative to a similar action occurring on a nearby parcel	Exception could be granted if the location of the proposed authorization is determined to be unsuitable and impacts from the proposed action could be offset through use of the mitigation hierarchy	--
Utah	Exception provides a clear net conservation gain to the GRSG.	Impacts could be fully offset through mitigation and the exception will include appropriate controlled surface use and timing limitation stipulations	Impacts could be fully offset through mitigation and the exception will include appropriate controlled surface use and timing limitation stipulations
Wyoming	N/A	Connectivity habitat added to NSO or surface disturbing activities being not authorized within 0.6 miles of occupied leks	--
Modifying Desired Conditions (See Chapter 4, Section 4.5.6)			
Nevada	Desired Conditions Tables 1a and 1b.	Local ecological site potential considered,	--

		broader description of appropriate GRSG habitat requirements identified, and seasonal use periods and habitat preferences values moved to appendix.	
Utah	Desired Conditions Table 1.	Updated desired conditions values.	Same
Wyoming	Desired Conditions Table 1.	Local ecological site potential considered, broader description of appropriate GRSG habitat requirements identified, and seasonal use periods and habitat preferences values moved to appendix.	--
Colorado, Idaho	N/A	N/A	N/A
Changing Livestock Grazing Guidelines (See Chapter 4, Section 4.5.7)			
Colorado, Idaho, Nevada, Utah, Wyoming	Specific residual grass and stubble height livestock grazing guidelines	In GRSG habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address GRSG habitat requirements.	Same
Nevada	Not considered	In priority, general, and other HMAs, grazing utilization in riparian areas and mesic meadows should be managed to promote cover, diversity, and health of important/key plant species to support sage-grouse during brood-rearing season; and during the growing season, manage grazing in riparian areas and mesic meadows to allow recovery of riparian vegetation	--
Colorado, Idaho, Nevada, Utah, Wyoming	Do not approve construction of water developments unless beneficial to GRSG habitat.	Do not approve construction of water developments that would cause adverse effects to GRSG habitat.	Same
Adaptive Management Review Process (See Chapter 4, Section 4.5.8)			
Colorado	Appendix C, 2015 GRSG ROD/LMPA	Appendix B	--
Idaho	Appendix C, 2015 GRSG ROD/LMPA	Appendix C	--

Nevada	Appendix C, 2015 GRSG ROD/LMPA	Appendix D	--
Utah	Appendix C, 2015 GRSG ROD/LMPA	Appendix E	--
Wyoming	2015 GRSG ROD/LMPA	Appendix F	--
Treatment of Invasive Species (See Chapter 4, Section 4.5.9)			
Idaho, Nevada, Utah, Wyoming	Not considered	Emphasize treatment of invasive plant species in PHMA.	Same
Colorado	N/A	N/A	N/A
Modifying Disturbance Caps (See Chapter 4, Section 4.5.10)			
Idaho	Included project level disturbance cap	Removed project level disturbance cap	N/A
Colorado, Nevada, Utah, Wyoming	N/A	N/A	N/A
Consistency with the 2012 Planning Rule (See Chapter 4, Section 4.5.11)			
Colorado, Idaho, Nevada, Utah, Wyoming	Developed under the 1982 Planning Regulations	Developed under the 2012 Planning Regulations	Developed under the 2012 Planning Regulations
Noise Standards (See Chapter 4, Section 4.5.11)			
Idaho, Utah, Wyoming	Specification of HMAs not included in the RODs	Specify HMA designations when applying noise standard	Specify HMA designations when applying noise standard
Colorado, Nevada	N/A	N/A	N/A

CHAPTER 1 - Purpose and Need for Action

1.1 INTRODUCTION

Greater sage-grouse (GRSG) is a species dependent on sagebrush steppe ecosystems. These ecosystems are managed in partnership across the range of the greater sage-grouse by federal, state, tribal and local authorities. Efforts to conserve the species and its habitat date back to the 1950s. Over the past two decades, state wildlife agencies, federal agencies, and many others in the range of the species have been collaborating to conserve greater sage-grouse and its habitats. The United States Department of Agriculture (USDA) Forest Service (FS) and the United States Department of the Interior (USDI) Bureau of Land Management (BLM) have broad responsibilities to manage federal lands and resources for the public benefit.

The National Forest Management Act of 1976 (NFMA) directs the FS to develop, maintain, and, as appropriate, revise land management plans (LMPs) which guide management of National Forest System (NFS) lands (16 USC 1604(a)). These plans will be generically referred to as LMPs throughout the remainder of this document.

In March 2010, the USDI Fish and Wildlife Service (USFWS) issued a 12 Month Finding for Petitions to List the greater sage-grouse (*Centrocercus urophasianus*) as Threatened or Endangered (75 Federal Register 13910, March 23, 2010). In that 12-Month Finding, the USFWS concluded that listing the greater sage-grouse as a threatened or endangered species was “warranted, but precluded by higher priority listing actions.” The USFWS reviewed the status and threats to the greater sage-grouse in relation to the five Listing Factors provided in Section 4(a)(1) of the Endangered Species Act of 1973 (ESA)(16 USC 1533(a)(1)). Of the five Listing Factors reviewed, the USFWS determined that Factor A, “the present or threatened destruction, modification, or curtailment of the habitat or range,” (p. 13924) and Factor D, “inadequacy of existing regulatory mechanisms” (p. 13973) posed “a significant threat to the greater sage-grouse now and in the foreseeable future” (pp. 13962 and 13982) (75 FR 13910, March 23, 2010). The USFWS identified the land and resource management plans for the FS and BLM as mechanisms through which adequate protections for greater sage-grouse could be implemented.

The 2010 USFWS listing decision prompted a FS and BLM joint planning effort to amend FS LMPs and BLM equivalents to incorporate conservation measures to support the continued existence of the greater sage-grouse. This effort culminated in the Forest Service Greater Sage-grouse Records of Decisions (2015 GRSG RODs) that were signed on September 16, 2015.

On October 2, 2015, the USFWS found that listing the greater sage-grouse under the ESA was not warranted (80 FR 59858). The USFWS based its finding on regulatory certainty from the conservation measures in the FS and BLM greater sage-grouse LMP amendments and revisions, as well as on other private, state, tribal, and federal conservation efforts.

On March 29, 2017, the Secretary of the Interior issued Secretarial Order (SO) 3349. It ordered agencies to reexamine practices to better balance conservation strategies and policies with the need of creating jobs. On June 7, 2017, the Secretary issued SO 3353 with a purpose of enhancing cooperation among eleven western states and the BLM in managing and conserving greater sage-grouse. SO 3353 directed an Interior Review Team, consisting of the BLM, the USFWS, and the US Geological Survey (USGS), to

coordinate with the Sage-Grouse Task Force. A June 14, 2017 letter from the Forest Service Chief directed Forest Service Regions 1, 2, and 4 to cooperate in the review. On August 4, 2017, the Interior Review Team submitted its Report in Response to SO 3353. In this report the team recommended modifying the greater sage-grouse plans and associated policies to better align with the individual state plans. On August 4, 2017, the Secretary issued a memo to the Deputy Secretary directing the BLM to implement the recommendations found in the report. On October 11, 2017, the BLM published the Notice of Intent to Amend Land Use Plans Regarding Greater Sage-Grouse Conservation and Prepare Associated Environment Impact Statements or Environmental Assessments (82 FR 47248). The BLM published state-specific FEISs on December 7, 2018 and Notices of Availability (NOAs) for Record of Decisions (RODs) were published on March 20, 2018 (84 FR 10327 (Colorado); 84 FR 10325 (Idaho); 84 FR 10323 (Nevada); 84 FR 10328 (Utah); and 84 FR 10322 (Wyoming)).

To solicit public comment on greater sage-grouse management issues that could warrant LMP amendments, the FS published a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) (82 FR 55346, November 21, 2017). The FS provided the public with an opportunity to identify the preliminary need for change to the 2015 Greater Sage-Grouse Plan Amendments and encouraged the public to help identify any issues, management questions, or concerns that should be addressed. A March 2018, Executive Summary of comments can be found here:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd576258.pdf.

On June 20, 2018 a Supplemental NOI was published to continue the scoping effort by seeking comments for a proposed action to make amendments to the plans (83 FR 28608). This Supplemental NOI identified the provisions in the regulations pertaining to the NFS Land Management Planning (36 CFR 219, referred to as the “planning rule”) likely to be directly related, and so applicable, to proposed plan amendments. On July 2, 2018, a corrected Supplemental NOI was published to clarify that the FS is not proposing to amend LMPs for NFS lands in Montana (83 FR 30909). On August 1, 2018 the comment period was extended for two weeks in response to public concerns regarding the BLM Draft Environmental Impact Statement (DEIS) comment period closing the same day as the FS (83 FR 37460). A September 2018, Executive Summary of comments is located on the project page at:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd595810.pdf.

On October 5, 2018 a Notice of Availability (NOA) for the Greater Sage-grouse Proposed Land Management Plan Amendments (LMPAs) and draft Environmental Impact Statement (DEIS) for the Intermountain and Rocky Mountain Regions was published in the Federal Register (83 FR 50331, October 5, 2018). The 90-day comment period per the 2018 NOA drew 33,192 comment letters, of which 622 contained unique and substantially different comments. The Forest Service received letters, emails, form letters, and public comment forms from Tribes, individuals, organizations, agencies, businesses, and groups. The Forests analyzed 2,935 comments from the 622 comment letters to identify the significant issues driving the alternatives. An Executive Summary of comments and responses is located in Appendix I. A spreadsheet containing all unique comments and response to comments is available at:

https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

The FS prepared this FEIS to analyze changing conservation measures for greater sage-grouse as well as to incorporate new information to improve the clarity, efficiency, and implementation of the conservation measures of the 2015 Greater Sage-Grouse Plan Amendments.

1.2 PLANNING AREA

The amendments would apply to the planning area that comprises NFS lands in greater sage-grouse habitat management areas (HMAs) located in national forests and grasslands. The planning area is managed under 19 LMPs, shown in Table 1-1.

Table 1-1. Forest Service LMPs proposed to be amended by GRS planning strategy.

Managing Forest or Grassland	LMP and Year Approved ¹	State
Intermountain Region, Region 4		
Ashley National Forest	Ashley National Forest Land and Resource Management Plan (1986)	Utah, Wyoming
Boise National Forest	Boise National Forest Land and Resource Management Plan (2003)	Idaho
Bridger-Teton National Forest	Bridger-Teton Land and Resource Management Plan (1990)	Wyoming
Caribou-Targhee National Forest	Curlew National Grassland Plan (2002)	Idaho
Caribou-Targhee National Forest	Revised Forest Plan for the Caribou National Forest (2003)	Idaho
Caribou-Targhee National Forest	1997 Revised Forest Plan, Targhee National Forest (1997)	Idaho
Dixie National Forest	Land and Resource Management Plan for the Dixie National Forest (1986)	Utah
Fishlake National Forest	Fishlake National Forest Land and Resource Management Plan (1986)	Utah
Humboldt-Toiyabe National Forest	Humboldt National Forest Land and Resource Management Plan (1986)	Nevada
Humboldt-Toiyabe National Forest	Land and Resource Management Plan, Toiyabe National Forest (1986)	Nevada
Manti-La Sal National Forest	Land and Resource Management Plan, Manti-La Sal (1986)	Utah
Salmon-Challis National Forest	Challis National Forest Land and Resource Management Plan (1987)	Idaho
Salmon-Challis National Forest	Salmon National Forest Land and Resource Management Plan (1988)	Idaho
Sawtooth National Forest	Sawtooth National Forest Land and Resource Management Plan (2003)	Idaho, Utah
Uinta-Wasatch-Cache National Forest	2003 Land and Resource Management Plan, Uinta National Forest (2003)	Utah, Wyoming
Uinta-Wasatch-Cache National Forest	Revised Forest Plan, Wasatch-Cache National Forest (2003)	Utah, Wyoming
Rocky Mountain Region, Region 2		
Medicine Bow-Routt National Forest	Routt National Forest Revised Land and Resource Management Plan (1997)	Colorado
Medicine Bow-Routt National Forest	Medicine Bow National Forest Revised Land and Resource Management Plan (2003)	Wyoming
Thunder Basin National Grassland	Land and Resource Management Plan for the Thunder Basin National Grassland (2001)	Wyoming

¹As amended

1.2.1 HABITAT MANAGEMENT AREAS

The planning area is comprised of numerous areas with greater sage-grouse habitat across the local ranges of one or more greater sage-grouse populations. These habitat areas are non-contiguous, meaning they are often separated by natural geographic features/barriers or human development. In this FEIS, the

planning area is further divided into type of habitat management areas (HMAs). Habitat management areas are broadly mapped at a large scale and may encompass tracts of non-habitat; plan components only apply to greater sage-grouse habitat within the broad bounds of the HMAs or, if HMAs are not specified, within lek buffers. The HMAs are defined as follows:

- **Priority Habitat Management Areas (PHMA):** Management areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations. These areas are occupied seasonally or year-round and include breeding, late brood-rearing, and winter habitat. The FS and BLM have identified these areas in coordination with respective state wildlife agencies. Idaho, Nevada, Utah, Wyoming, and Colorado have PHMA. In Wyoming, PHMA boundaries match Core Habitat identified in the Wyoming Sage-grouse Executive Order, Version 4 maps.
- **General Habitat Management Area (GHMA):** Management areas that are likely to be occupied seasonally or year-round outside of PHMAs or other defined management areas where GHMA management would apply to sustain the greater sage-grouse population. GHMA may include active leks, seasonal habitats, and fragmented or marginal habitat. These areas have been identified by the FS and BLM in coordination with respective state wildlife agencies. Idaho, Nevada, Utah, Wyoming, and Colorado have GHMA.
- **Important Habitat Management Area (IHMA):** Areas that contain additional habitat and populations that provide a management buffer for PHMA and to connect patches of PHMA. IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower greater sage-grouse population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. IHMA is only designated in Idaho.
- **Other Habitat Management Area (OHMA):** Areas determined to be moderate to low habitat suitability for greater sage-grouse in areas of estimated low space use. This habitat management class represents areas with appropriate environmental conditions for greater sage-grouse, but that are less frequently used by greater sage-grouse. OHMA is only designated in Nevada.
- **Connectivity Habitat Management Area (CHMA):** Management areas whose boundaries match Wyoming State designated Connectivity areas. They are identified as important to maintain transmission of genetic material between core habitat populations. CHMA may or may not include breeding, late brood-rearing, and winter habitats. Connectivity Habitat Management Areas are only in Wyoming.
- **Winter Concentration Areas:** Areas that are a habitat feature exclusively designated by the State of Wyoming and mapped by the Wyoming Game and Fish Department (WGFD). Winter Concentration Areas are designated and mapped areas where biologically significant numbers of core habitat (see glossary) birds persistently congregate in an area outside of PHMA between December 1 and March 14. No Winter Concentration Areas are currently mapped on NFS lands in Wyoming. If Winter Concentration Areas are designated by the State of Wyoming and mapped by WGFD, the appropriate plan components would be applied. Winter Concentration Areas are only in Wyoming.

1.3 PURPOSE AND NEED

The FS published the 2017 NOI and the 2018 Supplemental NOI to gauge public opinion on the possibility of amending LMPs for greater sage-grouse that were originally amended in 2015 in the states of Colorado,

Idaho, Nevada, Wyoming, and Utah (2015 GRSG ROD and LMPA). The need for further plan amendments is that the FS has gained new information and understanding from the 55,000 comments received as a result of the 2017 NOI, the 33,000 comments received from the 2018 NOA, from within-agency scoping, and from coordination with the Sage Grouse Task Force (with members from state agencies, BLM, USFWS, and the Natural Resources Conservation Service). The purpose of the proposed action is to incorporate new information to improve the clarity, efficiency, and implementation of the 2015 Greater Sage-Grouse Plan Amendments, including better alignment with BLM and state plans, in order to benefit greater sage-grouse conservation at the landscape scale.

1.4 PROPOSED ACTION

The scope and scale of the proposed action is on 5.4 million acres of greater sage-grouse habitat on NFS lands in the FS Intermountain and Rocky Mountain Regions. The plan amendments make changes to the 2015 Greater Sage-Grouse Plan Amendments that are specific by state and located in Chapter 2. The following are a summary of the proposed actions:

- 1) Areas designated as sagebrush focal areas (SFAs) will be eliminated and designated according to their underlying habitat management area in order to streamline plans in accordance with BLM and FS policy and to meet legal requirements of a March 2017 District Court Ruling for the State of Nevada.
- 2) The use of mineral withdrawals will be eliminated, in accordance with the limits of FS authority.
- 3) Where restrictions on mineral developments are required, specific requirements for habitat disturbing activities will be inserted to clarify plan direction.
- 4) Where exceptions to restrictions on minerals development are allowed, the details, requirements, and process of making the exceptions will be modified in order to streamline the plans in accordance with FS and BLM policy.
- 5) Updated information will be incorporated to revise mapped HMAs, and the purpose and use of HMA maps will be clarified.
- 6) Livestock management guidelines will be revised to modify restrictions on water developments and to replace specific grass-height requirements with standardized evaluation methods (e.g., the habitat assessment framework) in order to better reflect current research and to align local management with local habitat conditions.
- 7) Invasive plant management will be further emphasized by adding a plan objective that stresses treatment of invasive plants in PHMAs, since invasive plants are a primary threat to the sagebrush ecosystem and greater sage-grouse.
- 8) In order to promote landscape-scale effectiveness, the adaptive management framework will be changed to align the FS framework with BLM and state-based adaptive management systems.
- 9) Plan components will be altered to focus protections for greater sage-grouse into priority habitat management areas (PHMAs) relative to other HMAs.
- 10) The compensatory mitigation framework, including the use of no net loss or net conservation gain elements, will be changed in order to promote landscape-scale effectiveness by aligning the FS framework with state-based compensatory mitigation systems.
- 11) Text will be edited to correct minor clerical errors, improve clarity, and reduce redundancy within

the plan and as related to national policy.

1.4.1 SUBSTANTIVE REQUIREMENTS OF THE 2012 PLANNING RULE AS AMENDED

The planning rule requires that the FS apply those substantive planning rule provisions that are directly related to the amendment, within the scope and scale of the amendment (36 CFR 219.13 (b)(5)). The FS's determination of which substantive planning rule provisions are directly related to the amendment is based on the purpose for and the effects of the amendment (36 CFR 219.13 (b)(5)(i)). The purpose of the amendment is to include new information to improve the clarity, efficiency, and implementation of the 2015 Greater Sage-Grouse Plan Amendments, including better alignment with the BLM and state plans, in order to benefit greater sage-grouse conservation on the landscape scale.

The following substantive rule provisions are related to this plan amendment:

- The requirement to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, and to contribute to social and economic sustainability (36 CFR 219.8);
- The requirement to maintain the diversity of plant and animal communities (36 CFR 219.9 (a) and (b));
- The requirement to include plan components for integrated resource management to provide for ecosystem services and multiple uses in the plan area (36 CFR 219.10 (a)).

With respect to the requirements of the rule at 36 CFR 219.8, the analysis in Chapters 3 and 4 shows that the changes to the plan components both maintain ecosystem sustainability and contribute to social and economic sustainability, within the narrow scope of the amendments for greater sage-grouse.

With respect to the requirements of the rule at 36 CFR 219.9 concerning the diversity of plant and animal communities, the greater sage-grouse has been identified as a species of conservation concern (SCC) on the Ashley and Manti-La Sal National Forests, where revision of the land management plans is underway. Taking the conservative approach for this analysis, the FS is considering the effect on the greater sage-grouse as a potential SCC for each LMP that would be amended by this decision. The analysis in this FEIS shows that the amendments maintain ecological conditions necessary for a viable population of greater sage-grouse in the plan area for each LMP to which the amendments would apply (see Chapters 3 and 4).

With respect to the requirement of the rule at 36 CFR 219.10(a), the analysis shows that the minor adjustments that modify restrictions in the 2015 Greater Sage-grouse Plan Amendments should improve the capability of the plan areas to provide for ecosystem services and multiple uses.

Decision Framework

A land management plan establishes key decisions for the long-term management of a National Forest. The entire environmental analysis process, including the DEIS, FEIS, and proposed LMPAs is meant to inform the responsible officials (the Regional Foresters) so that they can decide which alternative (the proposed action, no action, or another alternative) to choose.

This is a programmatic FEIS. The decisions that result from this process are broad-scale planning decisions that will guide the selection and design of future projects and activities on the National Forests within the planning area. Programmatic decisions made in the LMPAs, are expressed as desired conditions,

objectives, standards, and guidelines. The LMPAs provide a broad framework that guides project-level decisions, but does not authorize, fund, or carry out any site-specific activities. Instead, the land management plan establishes limitations on what actions may be authorized and what conditions must be met during project-level decision making.

An amendment to the LMP does not authorize site-specific activities. Project activities such as timber harvest, trail construction, or motor vehicle use designations occur through subsequent project-specific decision-making, consistent with LMP direction. Once finalized, the Forests will carry out on-the-ground projects and activities designed to accomplish management objectives and move the project area toward desired conditions described in the LMPAs. Projects and activities will be subject to the National Environmental Policy Act and other applicable laws and regulations. Project decisions must be consistent with the LMP.

1.5 SCOPING AND IDENTIFICATION OF ISSUES FOR DEVELOPMENT OF THE ALTERNATIVES

1.5.1 THE SCOPING PROCESS

Scoping takes place early in the planning process and is a way for the FS to determine the scope, or range, of issues to be addressed and to identify the significant issues to consider in the planning process. Scoping identifies public and agency concerns, defines the relevant issues and alternatives that will be examined in detail in the EIS, and eliminates those issues that are not significant, or which have been covered by prior environmental review (40 CFR 1501.7).

Scoping is designed to be consistent with the public involvement requirements of NFMA and the National Environmental Policy Act (NEPA). This includes providing opportunities for public participation (36 CFR 219.4). The scoping process for these amendments included soliciting input from interested and affected state and local governments, tribal governments, other federal agencies and organizations, and individuals.

In addition to soliciting input from the public through scoping, the FS has been engaged with states in the planning areas, primarily through frequent technical meetings and during interactions with the Sage-grouse Task Force and the Association of Fish and Wildlife Agency's Sagebrush Executive Oversight Committee. The FS has also participated in government-to-government consultation with tribal governments.

The FS gave notice on November 21, 2017 of the intent to prepare an EIS for possible amendments to the LMPs that were amended in 2015 with direction for management of greater sage-grouse (82 FR 55346, November 21, 2017). The notice initiated a scoping process that invited public input on the preliminary issues the FS identified and on any related issues the public identified. On January 5, 2018, the comment period was extended two weeks (83 FR 654, January 5, 2018). The public comment period occurred from November 21, 2017 to January 19, 2018. During this timeframe, the FS received 50,535 responses (excluding duplicate submittals). Comments obtained during the scoping period were used to define the relevant issues that would be addressed by a range of reasonable alternatives. An executive summary of comments is available at: <https://www.fs.usda.gov/detail/r4/home/?cid=stelprd3843381>.

As the proposed action was further refined, the FS issued a Supplemental Notice of Intent inviting additional comment on June 20, 2018 (83 FR 28608, 28609, June 20, 2018). This continued the scoping effort by seeking comments about a more specific proposed action to make amendments to the plans.

On July 2, 2018 a corrected Supplemental NOI was published to clarify that the FS is not proposing to amend LMPs for NFS lands in Montana (83 FR 30909, July 2, 2018). The public comment period occurred from June 20 to August 15, 2018. On August 1, 2018 the comment period was extended by two weeks in response to public concerns from individuals and agencies who were trying to submit comments to the BLM for their Greater Sage-grouse DEIS comment period, before it closed on August 2, 2018 (83 FR 37460, August 1, 2018). The FS received 8,372 responses (excluding duplicate submittals). An Executive Summary of comments can be found here:

<https://www.fs.usda.gov/detail/r4/home/?cid=stelprd3843381>.

A Notice of Availability (NOA) for the Greater Sage-grouse Proposed LMPAs and DEIS for the Intermountain and Rocky Mountain Regions was published in the Federal Register on October 5, 2018 which began a 90-day public comment period (83 FR 50331). During the 90-day comment period, the DEIS and LMPA information was available to the public electronically on the greater sage-grouse website, and available in paper copy by request. The Forest Supervisors and interdisciplinary team members continued to meet with interested groups and agencies, to provide information and discuss potential concerns. A number of public meetings were held in Idaho (November 26-Boise, November 29-Jerome, December 17-Challis, and December 18-Idaho Falls), Nevada (November 7-Sparks and November 8-Elko), Utah (December 11- Cedar City, December 12- Vernal, and December 13- Tooele), and Wyoming (October 22- Cheyenne and October 23- Pinedale).

The Forest received 33,192 comment letters, of which 622 contained unique or substantially different comments. Letters, emails, form letters and public comment forms from Tribes, individuals, organizations, agencies, businesses and groups. The Forest analyzed 2,935 comments from these comment letters to identify possible changes to existing alternatives or need to develop new alternatives. An Executive Summary of comments and responses is located in Appendix I. A spreadsheet containing all unique comments and response to comments is available at: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

Each of these Federal Register notices included identification of the substantive requirements of the planning rule likely to be directly related, and therefore applicable, to the amendments, as required by the planning rule (36 CFR 219.13(b)(2)).

1.5.2 ISSUES AND RELATED RESOURCE TOPICS IDENTIFIED

The FS evaluated comments received during the scoping and DEIS and LMPA comment period to determine whether they constituted issues relevant to this planning process. Planning issues can drive the development of an alternative, may involve resources that are adversely affected by the proposed action, or may concern conflicts about alternative uses of available resources. These planning issues provide focus for the analysis and are used to compare the environmental effects of the alternatives.

The sections below outline how the FS addresses issues raised and related resource topics in this FEIS. Generally, they fall into the following categories:

- **Clarification of the 2015 Greater Sage-grouse Plan Amendments** – Some commenters requested clarification on the implementation of the 2015 Greater Sage-grouse Plan Amendments. No new analysis is included in this FEIS, as these decisions were analyzed in the 2015 GRSG FEIS. However, clarifying language may have been added to the tables in Chapter 2.
- **Issues and related resource topics retained for further consideration in this FEIS** – The FS

developed alternatives based on some of the issues raised during scoping. In some cases, the issue and related resource topic was previously analyzed in the 2015 GRSG FEIS, but additional analysis or clarification is needed. In other cases, the issues were not previously considered and analysis is needed in this FEIS. These issues are listed in Section 1.5.3.

- **Issues and resource topics not carried forward for additional consideration or analysis in this FEIS** - Some issues do not require additional analysis because they were analyzed in the 2015 GRSG FEIS, no new information has emerged, or they are not affected by the changes proposed in Chapter 2 of this FEIS.

1.5.3 ISSUES AND RELATED RESOURCE TOPICS RETAINED FOR FURTHER CONSIDERATION IN FEIS

Table 1-2 contains the issues and related resource topics that were identified during scoping and that could be affected. These issues are carried forward for further consideration in this FEIS.

Table 1-2. Issues carried forward for further analysis.

Issues	Resource Topics	States
Habitat Management Areas Designation		
Identify a process for evaluating and updating HMA boundaries	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, NV, UT, WY
Focus protection in PHMAs relative to other HMA designations	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, UT, WY
Specify HMA designations when applying noise standard	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, UT, WY
Change the Anthro Mountain HMA designation to PHMA designation	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	UT
Eliminate the GHMA and Anthro Mountain designation	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire,	UT

Issues	Resource Topics	States
	Recreation, Comprehensive Travel Management, Mineral and Energy Resources	
Changes in HMA boundaries	Special Status Species-Greater Sage-Grouse (and Habitat)	NV, UT, WY
Elimination of Sagebrush Focal Area Designations/Withdrawals		
Sagebrush Focal Areas (SFAs) duplicate many protections that are already in place through the designation of PHMA in the absence of mineral withdrawals	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	CO, ID, NV, UT, WY
Changing Net Conservation Gain and Adjustment of Compensatory Mitigation Frameworks		
Net conservation gain changed to no net loss of habitat to align with the state mitigation strategies	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	CO, ID, UT, WY,
Alignment with the Idaho Governor’s Task Force Plan Prioritization of protection of PHMA by emphasizing compensatory mitigation in IHMA Updated mitigation framework	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	ID
Alignment with the Wyoming Compensatory Mitigation Framework Updated mitigation framework	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	WY
Alignment with the State of Nevada’s mitigation strategy Updated mitigation strategy	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	NV
Alignment with State of Utah Compensatory Mitigation Program	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Mineral and Energy Resources	UT
Modifying Lek Buffers		
Prioritization of protection of PHMA by allowing flexibility in lek buffer application	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy)	ID
Specifying active or pending leks rather than occupied leks	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy) Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	NV
Including Waivers, Exceptions, and Modifications on NSO Stipulations		

Issues	Resource Topics	States
<p>The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources</p>	<p>ID</p>
<p>The no surface occupancy (NSO) exception includes appropriate use of mitigation hierarchy</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources</p>	<p>NV</p>
<p>Exceptions must result in no effects to GRSG or habitat or all impacts could be offset through mitigation</p> <p>Clarified geothermal leases included in fluid leases</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources</p>	<p>UT</p>
<p>Connectivity habitat added to NSO or surface disturbing activities being not authorized within 0.6 miles of occupied leks</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Mineral and Energy Resources</p>	<p>WY</p>
Modifying Desired Conditions		
<p>Local ecological site potential considered, broader description of appropriate GRSG habitat requirements identified, and desired conditions table values moved to appendix</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources</p>	<p>NV, WY</p>
<p>Updating desired condition table values</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources</p>	<p>UT</p>
Changing Livestock Grazing Guidelines		
<p>Replace specific grass-height guidelines with guidelines to adjust livestock management as needed if livestock grazing is limiting achievement of GRSG habitat conditions</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Livestock Grazing</p>	<p>CO, ID, NV, UT, WY</p>
<p>Replace specific grass-height guidelines with management approaches to riparian and meadow areas</p>	<p>Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Livestock Grazing</p>	<p>NV</p>

Issues	Resource Topics	States
Modify language regarding water developments in HMAs	Special Status Species-Greater Sage-Grouse (and Habitat), Riparian Areas and Wetlands and Water Resources, Livestock Grazing	ID, NV, UT
Adaptive Management Review Process		
Allow for process for reviewing or reverting to an adaptive management response when causal factor is resolved	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID, UT, WY
Ensure federal, state, and local partners are part of the causal factor analysis process Identify process to evaluate and respond to hard and soft trigger adaptive management responses	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	NV
Treatment of Invasive Species		
Emphasize treatment of invasive plant species in PHMA	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	ID, NV, UT, WY
Calculating Disturbance Caps		
Calculate the 3% disturbance cap at the BSU level, rather than at BSU and project-level.	Special Status Species-Greater Sage-Grouse (and Habitat), Land Use and Realty (including Renewable Energy), Recreation, Comprehensive Travel Management, Mineral and Energy Resources	ID
Use of Optional Content in the Plan		
Identification of the use of management approaches	Special Status Species-Greater Sage-Grouse (and Habitat), Vegetation (Including Invasive, Exotic Species, and Noxious Weeds), Riparian Areas and Wetlands and Water Resources, Land Use and Realty (including Renewable Energy), Livestock Grazing, Wildland Fire, Recreation, Comprehensive Travel Management, Mineral and Energy Resources	CO, ID, NV, UT, WY

1.5.4 ISSUES AND RESOURCE TOPICS NOT CARRIED FORWARD

The FS will not analyze in this FEIS some of the issues and resource topics that were raised during scoping for a variety of reasons, as described below. For example, exclusive federal population management is not given a detailed analysis. Although the FS has the statutory authority, responsibility and prerogative to manage NFS lands and interests, including wildlife, the FS recognizes and respects that the authority to manage and preserve fish and game is inherent in the sovereignty of a State. In the case of management of the greater sage-grouse, the FS will continue its commitment to a strong and cooperative working relationship with the Colorado Parks and Wildlife, Idaho Department of Fish and Game, Nevada

Department of Wildlife, Utah Division of Wildlife Resources, and Wyoming Game and Fish Department.

Below is a list of issues that were analyzed in the 2015 GRSF FEIS and do not require additional analysis in this FEIS because no significant new information has emerged. The impacts of implementing the alternatives in this FEIS are within the range of impacts of alternatives previously analyzed in the 2015 GRSF FEIS.

- Restrictions on Right of Ways (ROWs) and infrastructure
- Wind energy development in PHMA
- Retention of lands as identified as HMAs in federal ownership
- Prioritization of fluid mineral leases outside of PHMA and GHMA in Idaho, Wyoming, Colorado, and Nevada
- Vegetation treatments and wildfire response
- Habitat assessment framework
- Contribution of disturbance caps toward greater sage-grouse conservation objectives

The FS previously evaluated the following issues but did not include them in the 2015 GRSF FEIS. They are not carried forward for detailed analysis in this FEIS for the same reasons they were dismissed in the 2015 GRSF FEIS (ID: Chapter 1, section 1.5.3; NV: Chapter 1, 1.6.3; UT: Chapter 1, section 1.6.3).

- Hunting greater sage-grouse
- Predator control
- Aircraft overflights
- National livestock grazing policies
- Warranted but precluded Endangered Species Act decision
- FS Inventoried Roadless Areas and recommended Wilderness

1.6 CONSULTATION WITH FEDERALLY RECOGNIZED INDIAN TRIBES

Beginning in July 2018, government-to-government consultation between the FS and federally recognized Indian tribes was initiated. Tribes affiliated with the planning area were invited to become a cooperating agency and to consult on a government-to-government basis on proposed changes to the 2015 Greater Sage-grouse Plan Amendments. The FS recognizes that each tribe's expertise and perspective is important and values the knowledge, concerns, and perspectives of each tribe as it relates to the planning area.

1.7 RELATIONSHIP TO OTHER POLICIES, PLANS, AND PROGRAMS

Other land managers and government agencies are currently implementing many other ongoing programs, plans, and policies in the planning area. The FS recognizes the importance of tribal, state, and local plans. As required by the planning rule, the FS will "coordinate land management planning with the equivalent and related planning efforts of federally recognized Indian Tribes, other Federal agencies, and State and local governments" (36 CFR 219.4 (b)(1)). The FS will not "direct or control management outside the planning area or conform management to meet non-Forest Service objectives or policies" (36 CFR 219.4 (b)(3)).

1.7.1 STATE AND LOCAL PLANS

The FS has facilitated and encouraged involvement of state and local agencies throughout the process

and requested cooperating agencies in the NOI in order that their views may be appropriately considered, contribute to common objectives, address impacts, resolve or reduce conflicts, and contribute to compatibility between FS and other agencies' plans.

Colorado

- Colorado Greater Sage-Grouse Conservation Plan (2008)
- Jackson County Master Plan (1998)
- Middle Park Greater Sage-Grouse Conservation Plan (CPW 2001)
- Northern Eagle and Southern Routt Greater Sage-Grouse Conservation Plan (2004)
- North Park Greater Sage-Grouse Conservation Plan (CPW 2001)
- Northwestern Colorado Greater Sage-Grouse Conservation Plan (2008)
- Parachute-Piceance-Roan Plateau Greater Sage-Grouse Conservation Plan (2008)
- Routt County Master Plan (2003)

Idaho

- Bear Lake County Comprehensive Plan (2002)
- Blaine County Comprehensive Plan (Updated 2019)
- Bonneville County Comprehensive Plan (Revised 2013)
- Comprehensive Plan Caribou County (2006)
- Cassia County Comprehensive Plan (Amended 2012)
- Custer County Public Resource Management Plan (2018)
- Custer County Sage-grouse Management Plan (2013)
- Elmore County 2014 Comprehensive Plan (2014)
- Fremont County Comprehensive Plan (2008)
- Idaho Governor's Executive Order No. 2015-04-Adopting Idaho's Sage-Grouse Management Plan (2015)
- Idaho Sage-Grouse Advisory Committee Greater Sage-Grouse Conservation Plan (2006)
- Oneida County Comprehensive Plan (2017)
- Twin Falls County Comprehensive Plan (2008)
- Twin Falls County Comprehensive Plan (2008)

Nevada

- Elko County Greater Sage-Grouse Management and Conservation Strategy Plan (2012)
- Elko County General Open Space Plan (2003)
- Elko County Public Lands Policy Plan (2008)
- Elko County Public Land Use and Natural Resource Management Plan (2010)
- Eureka County Master Plan (2010)
- Greater Sage-Grouse Conservation Plan for Nevada and Eastern California (NDOW 2004)
- Humboldt County Regional Master Plan (2012 Update)
- Lander County Master Plan (2010)
- Lincoln County Master Plan (2007)
- Lincoln County Open Space and Community Lands Plan (2011)
- Lincoln County Public Lands Policy Plan (2015)
- Nevada Association of Counties Limited Functional Home Rule Additional Powers Granted to Counties through SB29 (2015)
- Nevada Department of Wildlife-Wildlife Action Plan (2012)

- Nevada Greater Sage-Grouse Conservation Plan (2019)
- Nye County Comprehensive Master Plan, Nevada (2011)
- 2015 Summit on Public Lands in Nevada (2015)
- Truckee Meadows Regional Plan (Washoe County Only) (TMRPA 2007)
- White Pine County Public Lands Policy Plan (2007)
- White Pine County Water Resources Plan (2006)

Utah

- Beaver County Resource Management Plan (RMP) (2017)
- Box Elder County RMP (2017)
- Cache County RMP (2017)
- Carbon County RMP (2017)
- Conservation Plan for Greater Sage-Grouse in Utah (2019)
- Daggett County RMP (2017)
- Duchesne County RMP (2017)
- Emery County RMP (2017)
- Garfield County RMP (2017)
- Governor's 10-year Strategic Energy Plan (2011)
- Iron County RMP (2017)
- Juab County RMP (2017)
- Morgan County RMP (2017)
- Piute County RMP (2017)
- Rich County RMP (2017)
- Sanpete County RMP (2017)
- Sevier County RMP (2017)
- State of Utah Administrative Code – R-634-003 – Compensatory Mitigation Program (2018)
- State of Utah Executive Order 2015/002 – Implementing the Utah Conservation Plan for Greater Sage-Grouse (2015)
- State of Utah Resource Management Plan (2018)
- Summit County RMP (2017)
- Tooele County RMP (2017)
- Uintah County RMP (2017)
- Utah County RMP (2017)
- Utah Wildlife Action Plan (2015)
- Wasatch County RMP (2017)
- Western Weber County Resource Management Plan (2017)
- Wayne County Public Lands RMP (2017)

Wyoming

- Albany County Wyoming Comprehensive Plan (2008)
- Revised Campbell County Natural Resource Land Use Plan (Amended 2016)
- Carbon County Comprehensive Land Use Plan (Amended 2012)
- Converse County Wyoming Land Use Plan (2015)
- Crook County Comprehensive Land Use Plan (2014)
- Fremont County Land Use Plan (2004)
- Lincoln County Comprehensive Plan (2006)

- 2016 Natrona County Development Plan (2016)
- 2015-2020 Niobrara Conservation District Land and Resource Use Plan and Policy (2015)
- Long Range Land Use and Natural Resource Management Plan; Saratoga-Encampment-Rawlins Conservation District 2017 – 2021 (2017)
- The State of Wyoming’s Greater Sage-Grouse Core Area Protection Strategy (Executive Order 2015-4)
- The State of Wyoming’s Supplement to Greater Sage-Grouse Suitable Habitat Definitions (Executive Order 2017-2)
- Sublette County Comprehensive Plan (Amended 2005)
- Sweetwater County Comprehensive Plan (2002)
- Teton County Comprehensive Plan (2012)
- Uinta County Comprehensive Plan (2011)
- Weston County Land Use Plan (1977)

1.8 COOPERATING AGENCIES

In the NOI announcing the development of the DEIS, the FS invited agencies and tribes with interests within the planning area to request Cooperating Agency status. The following Federal agencies, states, counties, and state agencies requested cooperating agency status in the NEPA process (36 CFR 219.4(a)(1)(iv)); the FS solidified agreements (MOUs) with the following cooperators, initiated communications, and intends to maintain cooperative agency relationships.

Federal Agencies

- BLM Nevada State Office
- US Fish and Wildlife Service, Reno Office
- NRCS, Nevada

Nevada

- Eureka County, Nevada
- Humboldt County, Nevada
- Nevada Association of Counties (as government representative),
- Nevada Department of Agriculture
- Nevada Department of Conservation and Natural Resources
- Nevada Department of Wildlife
- Nye County, Nevada
- Nevada Governor’s Office of Energy
- Nevada Division of Minerals

Wyoming

- Teton County, Wyoming
- Wyoming Coalition of Local Governments (as government representative) for:
- Campbell County, Wyoming
- Campbell County Conservation District, Wyoming
- Converse County Conservation District, Wyoming
- Lincoln County Conservation District, Wyoming
- Lincoln County, Wyoming
- Meeteetse Conservation District, Wyoming

- Saratoga-Encampment Rawlins Conservation District, Wyoming
- Sublette County Conservation District, Wyoming
- Sublette County, Wyoming
- Sweetwater County Conservation District, Wyoming
- Sweetwater County, Wyoming
- Uinta County Conservation District, Wyoming

Utah

- Beaver County, Utah
- Carbon County, Utah
- Daggett County, Utah
- Duchesne County, Utah
- Emery County, Utah
- Garfield County, Utah
- Iron County, Utah
- Juab County, Utah
- Kane County, Utah
- Office of the Governor, Public Lands Policy Coordinating Office, Utah
- Summit County, Utah
- Uintah County, Utah

CHAPTER 2 - Alternatives

2.1 INTRODUCTION

This chapter describes the alternatives evaluated as a part of this final environmental impact statement (FEIS) for the land management plan amendment (LMPA). This FEIS analyzes three alternatives in detail. Alternative 1 is the No Action Alternative. Alternative 2 is the Proposed Action, which was developed to meet the purpose and need presented in Chapter 1. Alternative 3 is the State of Utah Alternative. In addition to the alternatives considered in detail, this chapter describes alternatives considered but eliminated from detailed analysis. Changes are displayed in tables specific to each state: Table 2-5 (Northwestern Colorado), Table 2-6 (Idaho), Table 2-7 (Nevada), Table 2-8 (Utah, Proposed Action), Table 2-8a (Utah, State of Utah Alternative), and Table 2-9 (Wyoming).

2.1.1 FOREST SERVICE PLAN COMPONENTS AND OPTIONAL CONTENT IN THE PLAN

On National Forest System (NFS) lands, land management plans (LMP) guide management activities and contain desired conditions and objectives as well as standards and guidelines that provide direction for project planning and design. Forest Service plan component definitions are in the planning rule at 36 CFR 219.7(e)(1). The following terms and definitions are used throughout this FEIS:

- **Desired Condition (DC)** - 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.
- **Objective (O)** - 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.
- **Standard (ST)** - A mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.
- **Guideline (GL)** - 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, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

The planning rule also provides for inclusion of optional content in the plan, such as potential management approaches or strategies and partnership opportunities or coordination activities (36 CFR 219.7(f)(2)). The planning rule does not require project consistency with optional content in the plan (36 CFR 219.15(d)). Optional content in the plan can be changed after public notification under the planning rule provision for administrative changes (36 CFR 219.13(c)). This plan amendment includes the optional content of “management approaches”:

- **Management Approach (MA)** - A management approach is a statement of the principal strategies

and program priorities the Responsible Official intends to employ to carry out projects and activities in the plan area. A management approach is optional content in a land management plan, is not a plan component, and can be changed, or added to or removed from a land management plan, following notice to the public (36 CFR §219.7(e)(2), and 219.13(c)).

Optional content in the plan could facilitate transparency and give the public and governmental entities a clear understanding of the plan and how outcomes would likely be delivered. If used, management approaches would describe the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities developed under the plan. The management approaches can convey a sense of priority and focus among objectives and the likely management emphasis. Management approaches should relate to desired conditions and may indicate the future course or direction of change, recognizing budget trends, program demands and accomplishments. Management approaches may discuss potential processes such as analysis, assessment, inventory, project planning, or monitoring (FSH 1909.20 section 22.4).

2.2 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

2.2.1 VARYING CONSTRAINTS ON LAND USES AND DEVELOPMENT ACTIVITIES

During scoping, some commenters asked the Forest Service to consider additional constraints on land uses and ground-disturbing development activities to protect greater sage-grouse habitat. Such constraints would be beyond those in the current LMPs. Other commenters, in contrast, asked the Forest Service to consider eliminating or reducing constraints on land uses, or incorporating other flexibilities into the LMP plan components. Some commenters wanted the Forest Service to change the LMPs back to how they were prior to the 2015 GRSG ROD and LMPA (see descriptions of Alternative A by state below). Other commenters wanted the provisions of the 2015 GRSG RODs left in place. The Forest Service considered public scoping comments, including comments from States and cooperating agencies, in developing the Alternatives.

This planning process does not revisit every issue that the Forest Service and the BLM evaluated in the 2015 planning process. Instead, the Forest Service included changes and clarifications to the 2015 Greater Sage-Grouse Plan Amendments, consistent with the purpose and need for action. Accordingly, this FEIS has its foundation in the comprehensive 2015 GRSG FEIS and ROD and LMPA and incorporates those documents in the administrative record by reference, including the entire range of alternatives evaluated through the 2015 planning process, listed below.

Colorado

- Alternative A would have retained the management goals, objectives, and direction specified in the existing FS LMPs effective prior to the 2015 GRSG ROD and LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team (NTT) planning effort in Washington Office Instructional Memorandum (IM) Number 2012-044. As directed in the IM, the conservation measures developed by the NTT must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied greater sage-grouse habitat. Most management actions included in Alternative B would be applied to priority habitat management areas (PHMA).

- Alternative C was based on a citizen group's recommended alternative. This alternative emphasizes improvement and protection of habitat for greater sage-grouse and was applied to all occupied greater sage-grouse habitat. Alternative C would limit commodity development in areas of occupied greater sage-grouse habitat and would close or designate portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the 2015 DEIS, balanced opportunities to use and develop the planning area and ensures protection of greater sage-grouse habitat based on scoping comments and input from cooperating agencies involved in the alternatives development process. Protective measures would be applied to greater sage-grouse habitat.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the NTT recommendations. This alternative emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Idaho

- Alternative A would have retained the management goals, objectives and direction specified in the Forest Service land and resource management plans effective prior to the 2015 GRSG ROD and LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office IM 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied greater sage-grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen group's recommended alternative. This alternative emphasized improvement and protection of habitat for greater sage-grouse and was applied to all occupied greater sage-grouse habitat. Alternative C would have limited commodity development in areas of occupied greater sage-grouse habitat and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the 2015 DEIS, balanced opportunities to use and develop the planning area and protects greater sage-grouse habitat based on scoping comments and input from cooperating agencies involved in the alternative's development process. Protective measures would have been applied to greater sage-grouse habitat.
- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific State Conservation strategies and emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives. This alternative was identified as a co-Preferred Alternative in the Idaho 2015 DEIS.

- Alternative F was also based on a citizen group-recommended alternative. This alternative emphasized improvement and protection of habitat for greater sage-grouse and defined different restrictions for PHMA and general habitat management areas (GHMA). Alternative F would have limited commodity development in areas of occupied greater sage-grouse habitat and would have closed or designated portions of the planning area to some land uses.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Nevada

- Alternative A would have retained the management goals, objectives, and direction specified in the Forest Service land and resource management plans effective prior to the 2015 GRSG ROD and LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office Instruction Memorandum (IM) 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied greater sage-grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen groups' recommended alternative. This alternative emphasized improvement and protection of habitat for greater sage-grouse and was applied to all occupied greater sage-grouse habitat. Alternative C would have limited commodity development in areas of occupied greater sage-grouse habitat and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative, balanced opportunities to use and develop the planning area and protects greater sage-grouse habitat based on scoping comments and input from cooperating agencies involved in the alternative's development process. Protective measures would have been applied to greater sage-grouse habitat.
- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific state conservation strategies and emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives.
- Alternative F was also based on a citizen group-recommended alternative. This alternative emphasized improvement and protection of habitat for greater sage-grouse and defined different restrictions for PHMA and GHMA. Alternative F would have limited commodity development in areas of occupied greater sage-grouse habitat and would have closed or designated portions of the planning area to some land uses.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative

emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Utah

- Alternative A would have retained the management goals, objectives and direction specified in the Forest Service land and resource management plans effective prior to the 2015 GRSG ROD and LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office IM 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied greater sage-grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen groups' recommended alternative and was combined with Alternative F considered by ID, NV, CA, MT, and OR. This alternative emphasized improvement and protection of habitat for greater sage-grouse and was applied to all occupied greater sage-grouse habitat. Alternative C would have limited commodity development in areas of occupied greater sage-grouse habitat, and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the 2015 DEIS, balanced opportunities to use and develop the planning area and protects greater sage-grouse habitat based on scoping comments and input from Cooperating Agencies involved in the alternative's development process. Protective measures would have been applied to greater sage-grouse habitat.
- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific State Conservation strategies and emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of greater sage-grouse.

Wyoming

- Alternative A would have retained the management goals, objectives and direction specified in the Forest Service LMPs effective prior to the 2015 GRSG ROD and LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in IM 2012-044. As directed in the IM, the conservation measure developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied greater sage-grouse habitat. Most management actions included in Alternative B would be applied to PHMA.

- Alternative C was based on a citizen groups' recommended alternative. This alternative emphasizes improvement and protection of habitat for greater sage-grouse and was applied to all occupied greater sage-grouse habitat. Alternative C would limit commodity development in areas of occupied greater sage-grouse habitat, and would close or designate portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the 2015 DEIS, balanced opportunities to use and develop the planning area and ensures protection of greater sage-grouse habitat based on scoping comments and input from cooperating agencies involved in the alternative's development process. Protective measures would be applied to greater sage-grouse habitat.
- The Proposed LUPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of greater sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives. For the Wyoming Proposed LMPA, this guidance was consistent with guidelines provided in the Governor's Sage-Grouse Implementation Team's Core Population Area strategy and the Governor's Executive Order (WY EO 2011-05).

2.3 DESCRIPTION OF ALTERNATIVES

2.3.1 ALTERNATIVE 1 - NO ACTION ALTERNATIVE

Under the No Action Alternative, the Forest Service would not amend LMPs amended by the 2015 GRSG ROD and LMPA (For a complete list of land management plans, see Chapter 1, Table 1-1). Greater sage-grouse habitat would continue to be managed under current LMP direction.

Desired conditions and objectives for Forest Service administered lands and federal mineral estate would not change. Allowable uses and restrictions would also remain the same, as they pertain to such activities as mineral leasing and development, recreation, lands and realty, and livestock grazing. This alternative also maintains the designation of sagebrush focal areas (SFAs), although the BLM has cancelled the proposal withdrawal of SFAs from locatable mineral entry ([Notice of Cancellation](#), 82 *Federal Register* 195, October 11, 2017, p. 47248). See Section 2.5, which describes the No Action Alternative in detail.

2.3.2 ALTERNATIVE 2 – PROPOSED ACTION

This alternative makes modifications to the No Action Alternative to improve the clarity, efficiency, and implementation of greater sage-grouse plans, including better alignment with BLM and state plans, in order to benefit greater sage-grouse conservation on the landscape scale.

This alternative was developed to promote continued collaboration with the BLM, states, and stakeholders to improve management, compatibility, and consistency between federal management plans and other plans and programs at the state level, and to continue to provide protection of greater sage-grouse habitat. This enhanced cooperation between the Forest Service and the States is expected to improve management and coordination with states across the range of greater sage-grouse.

The modifications made by this alternative include updating and making adjustments to habitat

management area boundaries; removing SFA designations; removing the Anthro Mountain habitat designation and replacing it with priority habitat management area designation; incorporating causal factor review and response processes into the adaptive management strategies; changing net conservation gain to no net loss of habitat (except Nevada) and aligning better with states' mitigation strategies; modifying lek buffers; revising livestock management guidelines to replace grass height requirements with standardized evaluation methods; clarifying the restriction on water developments within habitat management areas; emphasizing treatment of invasive plants in priority habitat management area; noise standards; and providing consistency with the 2012 Planning Rule. These modifications differ among the states in the planning area, as shown in Section 2.5, which describes the Proposed Action in detail. The issues identified in column three of Tables 2-5 through 2-9 correspond with issues identified in Table 1-2.

Under this alternative, the habitat management areas would be identified as "management areas," as defined in 36 CFR 219.19. A footnote in the 2015 GRSR RODs explained that the habitat management areas were treated as "overlays" instead of replacing existing management areas, which would have been required by the prior planning rule under which the 2015 amendment was developed (p. 17 of both 2015 RODs). This amendment is being developed under the planning rule, which provides for management areas that do not have to be spatially contiguous and may overlap existing ones. The identification of habitat management areas as management areas will not change boundaries of other management areas that are identified in the LMPs.

Consistent with the [Notice of Cancellation](#) of the BLM's application to withdraw SFAs from locatable mineral entry (82 *Federal Register* 195, October 11, 2017, p. 47248), this alternative would also remove the recommendation for withdrawal. The effects of such action are included in Chapter 4.

To be consistent with the planning rule, those plan components of the 2015 Greater Sage-Grouse Plan Amendments that do not meet the definitions for plan components in 36 CFR 219.7(e)(1) were changed to management approaches.

The planning rule also states that "Plans should not repeat laws, regulations, or program management policies, practices, and procedures that are in the Forest Service Directive System." 36 CFR 219.2(b)(2). To be consistent with the planning rule, plan components already required by existing law, regulation, or policy were removed.

2.3.3 ALTERNATIVE 3 – STATE OF UTAH ALTERNATIVE

This alternative incorporates all aspects of Alternative 2, except it incorporates two additional modifications to plans within the state of Utah. Specifically, the FS would remove the general habitat management area designation from NFS lands in Utah and would also remove the Anthro Mountain management area from designation on the Ashley National Forest but not re-designate it as a priority habitat management area. See Section 2.5, Table 2-8a, which describes the State of Utah alternative in detail.

2.4 COMPARATIVE SUMMARY OF ALTERNATIVES

Tables 2-1 and 2-2 below provide a comparison between the No Action Alternative and Proposed Action with respect to the acres designated as priority habitat management area (PHMA), general habitat management area (GHMA), Important Habitat Management Areas (IHMA, Idaho only), Other Habitat

Management Areas (OHMA, Nevada only), and Anthro Mountain HMA (Utah only). The change in acres between these two alternatives is based on the following:

- Sagebrush Focal Area (SFA) designations were changed to the appropriate HMA designation.
- The Anthro Mountain HMA (Utah only) designation was changed to priority habitat management area designation.
- The Beaverhead-Deerlodge National Forest in Southwest Montana is not within the scope of this proposed action; however, changes for Idaho result in changes to the previous combined acreage for Idaho and SW Montana.
- In areas where additional, site-specific data were gathered since 2015, acreage was updated.
- Small mapping errors were fixed. For example, the 2015 Idaho map showed a greater sage-grouse HMA in high elevation outside of actual greater sage-grouse habitat. A full description of mapping changes is located in Section 4.5.1.

Table 2-3 provides the acres under the State of Utah Alternative. It is similar to the Proposed Action, except that the Anthro Mountain HMA and general habitat management area designation were removed. The State of Utah provided a portion of the analysis for this alternative.

Table 2-4 displays the acreage of greater sage-grouse habitat management areas present in each state by alternative.

See Appendix A for Maps. In addition, a mapping tool which displays the changes between the 2015 habitat management areas and the Proposed Action and State of Utah Alternatives are found here:

<https://usfs.maps.arcgis.com/apps/PublicInformation/index.html?appid=9f1cf6d8425e49949d0006a0ae574b84>

Table 2-1. No Action Alternative - Summary of habitat management areas in acres.

National Forest by State	GHMA	IHMA	Anthro Mountain	OHMA	PHMA	SFA ¹	Total
Ashley NF	63,500	-	42,100	-	120,000	-	225,600
UT	8,800	-	42,100	-	78,700	-	129,600
WY	54,700	-	-	-	41,300	-	96,000
Boise NF (ID)	57,400	21,100	-	-		-	78,500
Bridger-Teton NF (WY)	232,300	-	-	-	97,100	2,800	329,400
Caribou-Targhee NF	30,700	76,000	-	-	56,800	-	163,500
ID	30,000	76,000	-	-	56,800	-	162,800
WY	700	-	-	-		-	700
Dixie NF (UT)	-	-	-	-	185,200	-	185,200
Fishlake NF (UT)	7,100	-	-	-	173,400	-	180,500
Humboldt-Toiyabe NF (NV)	797,800	-	-	625,600	994,800	566,800	2,418,200
Manti-La Sal NF (UT)	7,600	-	-	-	89,200	-	96,800
Medicine Bow-Routt NF	312,000	-	-	-	281,500	-	593,500
CO	11,000	-	-	-	1,400	-	12,400
WY	301,000	-	-	-	280,100	-	581,100
Salmon-Challis NF (ID)	27,300	167,200	-	-	226,400	189,300	420,900
Sawtooth NF	232,900	152,000	-	-	130,600	58,600	515,500
ID	232,900	152,000	-	-	58,800	-	443,700
UT	-	-	-	-	71,800	-	71,800
Uinta-Wasatch-Cache NF	25,800	-	-	-	185,000	47,300	209,800
UT	4,700	-	-	-	184,000	-	188,700
WY	21,100	-	-	-	1,100	-	22,200
Total	1,794,200	416,300	42,100	625,600	2,539,900	864,900	5,418,000

¹These acres overlay designated HMAs; the acres are not additive.

Table 2-2. Proposed Action Alternative - Summary of habitat management areas in acres.

National Forest by State	GHMA	IHMA	OHMA	CHMA	PHMA	Total
Ashley NF	70,200	-	-	-	155,400	225,600
UT	8,800	-	-	-	120,800	129,600
WY	61,400	-	-	-	34,700	96,100
Boise NF (ID)	57,400	21,100	-	-	-	78,500
Bridger-Teton NF (WY)	115,700	-	-	-	53,900	169,600
Caribou-Targhee NF	30,000	76,000	-	-	56,800	162,800
ID	30,000	76,000	-	-	56,800	162,700
WY	-	-	-	-	-	-
Dixie NF (UT)	-	-	-	-	185,200	185,200
Fishlake NF (UT)	7,100	-	-	-	173,400	180,400
Humboldt-Toiyabe NF (NV)	1,096,000	-	426,800	-	889,600	2,412,400
Manti-La Sal NF (UT)	7,600	-	-	-	89,200	96,800
Medicine Bow-Routt NF	346,800	-	-	-	231,700	584,900
CO	11,000	-	-	-	1,400	12,400
WY	335,800	-	-	6,400	230,300	572,500
Salmon-Challis NF (ID)	27,300	167,200	-	-	226,400	420,900
Sawtooth NF	232,800	152,000	-	-	130,600	515,400
ID	232,800	152,000	-	-	58,800	443,600
UT	-	-	-	-	71,900	71,800
Uinta-Wasatch-Cache NF	6,100	-	-	-	184,400	190,500
UT	4,700	-	-	-	183,900	188,600
WY	1,400	-	-	-	500	1,900
Total	1,997,000	416,300	426,800	6,400	2,376,500	5,222,900

Table 2-3. State of Utah Alternative - Summary of habitat management areas in acres.

National Forest by State	GHMA	IHMA	OHMA	CHMA	PHMA	Total
Ashley NF	61,400	-	-	-	113,300	174,700
UT	0	-	-	-	78,700	78,700
WY	61,400	-	-	-	34,700	96,100
Boise NF (ID)	57,400	21,100	-	-	-	78,500
Bridger-Teton NF (WY)	115,700	-	-	-	53,900	169,600
Caribou-Targhee NF	30,000	76,000	-	-	56,800	162,800
ID	30,000	76,000	-	-	56,800	162,700
WY	-	-	-	-	-	-
Dixie NF (UT)	-	-	-	-	185,200	185,200
Fishlake NF (UT)	0	-	-	-	173,400	173,400
Humboldt-Toiyabe NF (NV)	1,096,000	-	426,800	-	889,600	2,412,400
Manti-La Sal NF (UT)	0	-	-	-	89,200	89,200
Medicine Bow-Routt NF	346,800	-	-	-	231,700	584,900
CO	11,000	-	-	-	1,400	12,400
WY	335,800	-	-	6,400	230,300	572,500
Salmon-Challis NF (ID)	27,300	167,200	-	-	226,400	420,900
Sawtooth NF	232,800	152,000	-	-	130,500	515,300
ID	232,800	152,000	-	-	58,800	443,600
UT	-	-	-	-	71,800	71,800
Uinta-Wasatch-Cache NF	1,400	-	-	-	184,400	185,800
UT	0	-	-	-	183,900	183,900
WY	1,400	-	-	-	500	1,900
Total	1,968,800	416,300	426,800	6,400	2,334,400	5,152,700

Table 2-4. Comparative summary of GRSG habitat management areas by alternative in acres.

Alternatives	Colorado	Acreage Change	Idaho	Acreage Change	Nevada	Acreage Change	Utah	Acreage Change	Wyoming	Acreage Change	Total Acreage Change
No Action Alternative											
PHMA	1,400	-	342,000	-	994,800	-	782,100	-	419,600	-	-
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	797,800	-	28,100	-	609,800	-	-
OHMA	-	-	-	-	625,600	-	-	-	-	-	-
Anthro Mountain	-	-	-	-	-	-	42,100	-	-	-	-
SFA	-	-	248,000	-	566,800	-	47,300	-	2,800	-	-
Total	12,400	-	1,105,800	-	2,418,100	-	852,300	-	1,029,400	-	-
Proposed Action Alternative											
PHMA	1,400	-	342,000	-	889,600	-105,200	824,200	42,200	319,400	-100,300	-163,300
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	1,096,000	298,300	28,100	-	514,300	-94,600	203,700
OHMA	-	-	-	-	426,800	-198,800	-	-	-	-	-198,800
CHMA	-	-	-	-	-	-	-	-	6,400	-	-
Anthro Mountain	-	-	-	-	-	-	-	-42,100	-	-	-42,100
Total	12,400	-	1,105,800	-	2,412,400	-5,700	852,400	100	840,100	-194,900	-200,400
State of Utah Alternative											
PHMA	1,400	-	342,000	-	889,600	-	782,100	-42,200	319,400	-	-42,200
IHMA	-	-	416,300	-	-	-	-	-	-	-	-
GHMA	11,000	-	347,500	-	1,096,000	-	-	-28,100	514,300	-	-28,100
OHMA	-	-	-	-	426,800	-	-	-	-	-	-
CHMA	-	-	-	-	-	-	-	-	6,400	-	-
Total	12,400	-	1,105,800	-	2,412,400	-	782,100	-70,300	840,100	-	-70,300

Acres rounded to the nearest hundred.

No Action Alternative - Source: FS GIS 2015; Proposed Action - Source: FS GIS 2018; State of Utah Alternative - Source: FS GIS 2018

2.5 COMPARISON OF ALTERNATIVES

Section 2.5 displays the changes made to the Proposed Action Alternative and State of Utah Alternative between the DEIS and the FEIS, by state. Changes in Tables 2-5 to 2-9 are displayed as follows:

- Column 1 – No Action Alternative. The No Action Alternative is the basis for the Proposed Action. **Deletions or changes are displayed in red.**
- Column 2 – Proposed Action Alternative in the DEIS. This was the Proposed Action Alternative for the DEIS. Changes to language or additions are shown in blue and underlined.
- Column 3 – Proposed Action Alternative in the FEIS. This column includes and changes to the Proposed Action Alternative for the FEIS. **Changes to language or additions are shown with a gray highlight.**
- Column 4 – This column displays if there was a change between DEIS and FEIS, which issue drove the change, or if it was a clarification to the text.

Table 2-5. Northwestern Colorado - Comparison of alternatives¹

¹Priority, connectivity, and general habitat management areas may contain non-habitat. Management direction would not apply to non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
vegetation, shrub cover, herbaceous cover, and stand structure to meet seasonal requirements for food, cover, and nesting for the greater sage-grouse.	vegetation, shrub cover, herbaceous cover, and stand structure to meet seasonal requirements for food, cover, and nesting for the greater sage-grouse.	vegetation, shrub cover, herbaceous cover, and stand structure to meet seasonal requirements for food, cover, and nesting for the greater sage-grouse.	
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas.² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas.² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas.² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	No Change
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In greater sage-grouse management areas, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In all greater sage-grouse habitat management areas, habitats are adequately distributed to support GRSG populations. 70% or more of lands capable of producing sagebrush have from 5 to 25% sagebrush canopy cover and less than 10% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral concealment from March 15 through June 30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In all greater sage-grouse HMAs, habitats are adequately distributed to support greater sage-grouse populations. 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 4% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral concealment from March 15 through June 30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and</p>	<p>Modifying Desired Conditions</p> <p>Consistency with literature</p>

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<p>desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>maintain sagebrush cover in the 328 feet adjacent to riparian/mesic meadows. When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions.</p>	<p>maintain sagebrush cover in the 328 feet adjacent to riparian/mesic meadows. When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions.</p>	
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-004-Management Approach</p> <p>The values for GRSG habitat attributes in Appendix B are initial references based on range-wide habitat selection by GRSG. These initial values do not preclude collaborative refinement to fit local variables of GRSG habitat use, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>GRSG-GEN-MA-004-Management Approach</p> <p>The values for greater sage-grouse habitat attributes in Appendix B are initial references based on range-wide habitat selection by GRSG. These initial values do not preclude collaborative refinement to fit local variables of greater sage-grouse habitat use, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>Modifying Desired Conditions</p>
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In PHMAs, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit (BSU) and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the BSU and proposed project area would be prohibited unless approved by the forest supervisor</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in no net habitat loss at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that no net habitat loss will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in no net habitat loss at the BSU and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that no net habitat loss will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of existing rights when authorizing new projects in priority habitat management areas.</p>	
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and general habitat management areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights by applying beneficial mitigation actions. Any</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>In priority and general habitat management areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide no net habitat loss to the species, subject to valid existing rights by applying beneficial mitigation actions. Any</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>In PHMA and GHMA, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide no net habitat loss to the species, subject to existing rights by applying beneficial mitigation actions. Any compensatory mitigation will be</p>	<p>Changing Net Conservation Gain</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix B).	compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix B).	durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix B).	
<p>GRSG-GEN-ST-006-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-007-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-007-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	No Change
<p>GRSG-GEN-GL-007-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	No Change
<p>GRSG-GEN-GL-008-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Table 1.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Appendix B, Table B-1.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Appendix B, Table B-1.</p>	Clarification
<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within 2 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the</p>	<p>GRSG-GEN-GL-010-Guideline</p> <p>Development of tall structures within 2 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the</p>	<p>GRSG-GEN-GL-010-Guideline</p> <p>Development of tall structures within 2 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
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.	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.	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			
<p>GRSG-AM-ST-010-Standard</p> <p>If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. Upon reaching a hard trigger, an appropriate component of a more restrictive alternative analyzed in the EIS will be implemented. The 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. The hard triggers are discussed more fully in Appendix C – NWCO Adaptive Management Plan.</p>	<p>GRSG-AM-ST-011-Standard</p> <p>If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. Upon reaching a hard trigger, an appropriate component of a more restrictive alternative analyzed in the EIS will be implemented. The 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. The hard triggers are discussed more fully in Appendix B – NWCO Adaptive Management Plan.</p>	<p>GRSG-AM-ST-011-Standard</p> <p>If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. Upon reaching a hard trigger, an appropriate component of a more restrictive alternative analyzed in the EIS will be implemented. The 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. The hard triggers are discussed more fully in Appendix B – NWCO Adaptive Management Plan.</p>	Clarification
<p>GRSG-AM-ST-011-Standard</p> <p>If a soft trigger is identified by the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team in the decline of the</p>	<p>GRSG-AM-ST-011-Standard</p> <p>If a soft trigger is identified by the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team in the decline of the</p>	<p>GRSG-AM-ST-012-Standard</p> <p>If a soft trigger is identified by the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team in the decline of the</p>	Clarification

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>greater sage-grouse population and/or its habitat, 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 causal factor(s) identified in the decline of population and/or habitat, considering local knowledge and conditions. The soft triggers are discussed more fully in Appendix C – NWCO Adaptive Management Plan.</p>	<p>greater sage-grouse population and/or its habitat, 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 causal factor(s) identified in the decline of population and/or habitat, considering local knowledge and conditions. The soft triggers are discussed more fully in Appendix B – NWCO Adaptive Management Plan.</p>	<p>greater sage-grouse population and/or its habitat, 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 causal factor(s) identified in the decline of population and/or habitat, considering local knowledge and conditions. The soft triggers are discussed more fully in Appendix B – NWCO Adaptive Management Plan.</p>	
Lands and Realty			
Special-use Authorizations (Non-recreation)			
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	No Change
<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority and general habitat management areas, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In priority and general habitat management areas, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In PHMA and GHMA, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring,</p>	No Change

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<p>based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In priority and general habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and general habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>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 the greater sage-grouse or its habitat.</p>	<p>No Change</p>
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure, guy wire marking, perch deterrent installation, etc.) 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,</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
pipelines, roads, distribution lines, and communication tower sites).	pipelines, roads, distribution lines, and communication tower sites).	distribution lines, and communication tower sites).	
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In PHMA and GHMA, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	No Change
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas, 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).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, 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).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>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).</p>	No Change
<p>GRSG-LR-SUA-GL-018-Guideline</p> <p>In priority habitat management areas, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority habitat management areas, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In PHMA, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines. New</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
pipelines. New communication tower sites may be authorized for public safety.	pipelines. New communication tower sites may be authorized for public safety.	communication tower sites may be authorized for public safety.	
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	No Change
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In priority and general management areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority and general management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In PHMA and GHMA, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	Changing Net Conservation Gain
<p>GRSG-LR-LOA-GL-021-Guideline</p> <p>In priority and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	No Change
Land Withdrawal			
<p>GRSG-LR-LW-GL-022-Guideline</p> <p>In priority habitat management areas, use land withdrawals as a tool, where</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	Elimination of Sagebrush Focal Areas

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
appropriate, to withhold areas from activities that will be detrimental to the greater sage-grouse or its habitat.			
Wind and Solar			
GRSG-WS-ST-023-Standard In priority habitat management areas, 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 sites).	GRSG-WS-ST-023-Standard In priority habitat management areas, 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 sites).	GRSG-WS-ST-023-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 sites).	No Change
GRSG-WS-GL-024-Guideline In general habitat management areas, 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 the greater sage-grouse and its habitat.	GRSG-WS-GL-024-Guideline In general habitat management areas, 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 the greater sage-grouse and its habitat.	GRSG-WS-GL-024-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 the greater sage-grouse and its habitat.	No Change
Greater Sage-grouse Habitat			
GRSG-GRSGH-ST-025-Standard Design habitat restoration projects to move towards desired conditions (Table 1).	GRSG-GRSGH-ST-025-Standard Design habitat restoration projects to move towards desired conditions (Appendix B, Table B-1).	GRSG-GRSGH-ST-025-Standard Design habitat restoration projects to move towards desired conditions (Appendix B, Table B-1).	Clarification

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-GRSGH-GL-026-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GRSGH-GL-026-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GRSGH-GL-026-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>No Change</p>
<p>GRSG-GRSGH-GL-027-Guideline</p> <p>In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non- native plant species.</p>	<p>GRSG-GRSGH-GL-027-Guideline</p> <p>In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non- native plant species.</p>	<p>GRSG-GRSGH-GL-027-Guideline</p> <p>In PHMA and GHMA, actions and authorizations should include design features to limit the spread and effect of undesirable non- native plant species.</p>	<p>No Change</p>
<p>GRSG-GRSGH-GL-028-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from greater sage-grouse desired conditions in Table 1, should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from greater sage-grouse desired conditions in Appendix B, Table B-1, should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix B, Table B-1).</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>To facilitate safe and effective fire management actions, in PHMA and GHMA, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from greater sage-grouse desired conditions in Appendix B, Table B-1, should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix B, Table B-1).</p>	<p>Clarification</p>
<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used when possible to maintain, restore, or</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In PHMA and GHMA, native plant species should be used when possible to maintain,</p>	<p>Clarification</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
when possible to maintain, restore, or enhance desired conditions (Table 1).	enhance desired conditions (Appendix B, Table B-1).	restore, or enhance desired conditions (Appendix B, Table B-1).	
GRSG-GRSGH-GL-030-Guideline In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).	GRSG-GRSGH-GL-030-Guideline In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix B, Table B-1).	GRSG-GRSGH-GL-030-Guideline In PHMA, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix B, Table B-1).	Clarification
Livestock Grazing			
GRSG-LG-DC-031-Desired Condition In priority and general habitat management areas and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Table 1).	GRSG-LG-DC-031-Desired Condition In priority and general habitat management areas, livestock grazing is used as a tool to maintain or move towards desired habitat conditions (Appendix B, Table B-1).	GRSG-LG-DC-031-Desired Condition In PHMA and GHMA, livestock grazing is used as a tool to maintain or move towards desired habitat conditions (Appendix B, Table B-1).	Clarification
GRSG-LG-ST-032-Standard In priority habitat management areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.	GRSG-LG-ST-032-Standard In priority habitat management area, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.	GRSG-LG-ST-032-Standard In PHMA, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.	Changing Livestock Grazing Guidelines
GRSG-LG-GL-033-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 potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions	GRSG-LG-GL-033-Guideline In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.	GRSG-LG-GL-033-Guideline In PHMA and GHMA, if livestock grazing is determined to be a causal factor limiting achievement of desired conditions for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter).	Changing Livestock Grazing Guidelines

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<p>in Table 1 consistent with the ecological site potential. 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 greater sage-grouse habitat.</p>			
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-034-Management Approach</p> <p><u>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than desired seasonal habitat condition, determine factors limiting achievement of the desired seasonal habitat conditions.</u></p>	<p>GRSG-LG-MA-034-Management Approach</p> <p>Delete</p>	<p>Duplicative with required Forest Plan Monitoring</p>
<p>GRSG-LG-GL-034-Guideline</p> <p>In priority and general habitat management areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>	<p>GRSG-LG-GL-034-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-034-Guideline</p> <p>Delete</p>	<p>Removed – duplicative with existing Forest Service policy and direction (FSM 2230)</p>
<p>GRSG-LG-GL-035-Guideline</p> <p>Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during</p>	<p>GRSG-LG-GL-035-Guideline</p> <p>Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during</p>	<p>GRSG-LG-GL-034-Guideline</p> <p>Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
lekking (from March 1 to April 30) should be restricted.	lekking (from March 1 to April 30) should be restricted.	lekking (from March 1 to April 30) should be restricted.	
<p>GRSG-LG-GL-036-Guideline</p> <p>During breeding and nesting season (from 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.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>During breeding and nesting season (from 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.</p>	<p>GRSG-LG-GL-035-Guideline</p> <p>During breeding and nesting season (from 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.</p>	No Change
<p>GRSG-LG-GL-037-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>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).</p>	No Change
<p>GRSG-LG-GL-038-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	No Change
Fire Management			
<p>GRSG-FM-DC-039-Desired Condition</p> <p>In priority and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk</p>	<p>GRSG-FM-DC-039-Desired Condition</p> <p>In priority and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk</p>	<p>GRSG-FM-DC-038-Desired Condition</p> <p>In PHMA and GHMA, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	
<p>GRSG-FM-ST-040-Standard</p> <p>In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-040-Standard</p> <p>In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix B, Table B-1 or for pile burning.</p>	<p>GRSG-FM-ST-039-Standard</p> <p>In PHMA and GHMA, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix B, Table B-1 or for pile burning.</p>	<p>Clarification</p>
<p>GRSG-FM-ST-041-Standard</p> <p>In priority and general habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-ST-041-Standard</p> <p>In priority and general habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix B, Table B-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-ST-040-Standard</p> <p>In PHMA and GHMA, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix B, Table B-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Clarification</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-FM-GL-042-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-042-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-041-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>No Change</p>
<p>GRSG-FM-GL-043-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-GL-043-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-GL-042-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-FM-GL-044-Guideline</p> <p>In priority and general habitat management areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-044-Guideline</p> <p>In priority and general habitat management areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-043-Guideline</p> <p>In PHMA and GHMA, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>No Change</p>
<p>GRSG-FM-GL-045-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike</p>	<p>GRSG-FM-GL-044-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	camps, helibases, mobile retardant plants) in priority and general habitat management areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	camps, helibases, mobile retardant plants) in priority and general habitat management areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	
<p>GRSG-FM-GL-046-Guideline</p> <p>In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>In PHMA and GHMA, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	No Change
<p>GRSG-FM-GL-047-Guideline</p> <p>In priority and general habitat management areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>In priority and general habitat management areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>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 determined by fireline leadership and incident commanders.</p>	No Change
<p>GRSG-FM-GL-048-Guideline</p> <p>In priority and general habitat management areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In priority and general habitat management areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>In PHMA and GHMA, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
desirable perennial plant species and reduce risk of hydrophobicity).	desirable perennial plant species and reduce risk of hydrophobicity).	plant species and reduce risk of hydrophobicity).	
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In PHMA and GHMA, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	No Change
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In PHMA and GHMA, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	No Change
<p>GRSG-FM-GL-051-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decision; and aid in development of</p>	<p>GRSG-FM-GL-051-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decision; and aid in development of</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decision; and aid in development of</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
strategies and tactics for resource prioritization.	strategies and tactics for resource prioritization.	strategies and tactics for resource prioritization.	
<p>GRSG-FM-GL-052-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-GL-052-Guideline</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-GL-051-Guideline</p> <p>Localized maps of PHMA and GHMA should be made available to fireline, dispatch, and fire support personnel.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-FM-GL-053-Guideline</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-GL-052-Guideline</p> <p>In or near PHMA and GHMA, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>No Change</p>
<p>GRSG-FM-GL-054-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-054-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>No Change</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse</p>	<p>GRSG-FM-GL-055-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater</p>	<p>GRSG-FM-GL-054-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of PHMA and GHMA, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
habitat is a consideration along with other high values.	sage-grouse habitat is a consideration along with other high values.		
<p>GRSG-FM-GL-056-Guideline</p> <p>In priority and general habitat management areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-056-Guideline</p> <p>In priority and general habitat management areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-055-Guideline</p> <p>In PHMA and GHMA, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	No Change
<p>GRSG-FM-GL-057-Guideline</p> <p>In priority and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-057-Guideline</p> <p>In priority and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-056-Guideline</p> <p>In PHMA and GHMA, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	No Change
Recreation			

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-R-DC-058-Desired Condition</p> <p>In priority habitat management areas, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-058-Desired Condition</p> <p>In priority habitat management areas, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Appendix B, Table B-1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-057-Desired Condition</p> <p>In PHMA, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Appendix B, Table B-1) and creating minimal user conflicts.</p>	<p>Clarification</p>
<p>GRSG-R-ST-059-Standard</p> <p>In priority and general habitat management areas, 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 greater sage-grouse or its habitat.</p>	<p>GRSG-R-ST-059-Standard</p> <p>In priority and general habitat management areas, 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 greater sage-grouse or its habitat.</p>	<p>GRSG-R-ST-058-Standard</p> <p>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 greater sage-grouse or its habitat.</p>	<p>No Change</p>
<p>GRSG-R-GL-060-Guideline</p> <p>In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-059-Guideline</p> <p>In PHMA and GHMA, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>No Change</p>
<p>GRSG-R-GL-061-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing</p>	<p>GRSG-R-GL-061-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In PHMA, new recreational facilities or expansion of existing recreational facilities</p>	<p>Changing Net Conservation Gain</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
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 the greater sage-grouse or its habitat or the development is required for visitor safety.	recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in no net habitat loss to the greater sage-grouse or its habitat or the development is required for visitor safety.	(e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in no net habitat loss to the greater sage-grouse or its habitat or the development is required for visitor safety.	
Roads/Transportation			
GRSG-RT-DC-062-Desired Condition In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	GRSG-RT-DC-062-Desired Condition In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	GRSG-RT-DC-061-Desired Condition In PHMA and GHMA, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	No Change
GRSG-RT-ST-063-Standard In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, 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 mitigate impacts.	GRSG-RT-ST-063-Standard In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, 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 mitigate impacts.	GRSG-RT-ST-062-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 to existing and authorized uses, 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 mitigate impacts.	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-RT-ST-064-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-064-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-063-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>No Change</p>
<p>GRSG-RT-ST-065-Standard</p> <p>In priority habitat management areas, prohibit public access on temporary energy development roads.</p>	<p>GRSG-RT-ST-065-Standard</p> <p>In priority habitat management areas, prohibit public access on temporary energy development roads.</p>	<p>GRSG-RT-ST-064-Standard</p> <p>In PHMA, prohibit public access on temporary energy development roads.</p>	<p>No Change</p>
<p>GRSG-RT-GL-066-Guideline</p> <p>In priority habitat management areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-066-Guideline</p> <p>In priority habitat management areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-065-Guideline</p> <p>In PHMA, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>No Change</p>
<p>GRSG-RT-GL-067-Guideline</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-RT-GL-067-Guideline</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-RT-GL-066-Guideline</p> <p>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.</p>	<p>No Change</p>
<p>GRSG-RT-GL-068-Guideline</p> <p>In priority and general habitat management areas, when decommissioning roads and</p>	<p>GRSG-RT-GL-068-Guideline</p> <p>In priority and general habitat management areas, when decommissioning roads and</p>	<p>GRSG-RT-GL-067-Guideline</p> <p>In PHMA and GHMA, when decommissioning roads and unauthorized routes, restoration</p>	<p>Clarification</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).	unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Appendix B, Table B-1).	activity should be designed to move habitat towards desired conditions (Appendix B, Table B-1).	
<p>GRSG-RT-GL-069-Guideline</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-GL-069-Guideline</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-GL-068-Guideline</p> <p>In PHMA and GHMA, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	No Change
<p>GRSG-RT-GL-070-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-069-Guideline</p> <p>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.</p>	No Change
Minerals			
Fluid Minerals – Unleased			
GRSG-M-FMUL-ST-071-Standard	GRSG-M-FMUL-ST-071-Standard	GRSG-M-FMUL-ST-070-Standard	Changing Net Conservation Gain

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>In priority habitat management areas, any new oil and gas leases must include a No Surface Occupancy 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 greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and the state wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; 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 the greater sage-grouse. 	<p>In priority habitat management areas, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer with input from a team of agency greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and the state wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and • The exception provides no net habitat loss to the greater sage-grouse. 	<p>In PHMA, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer with input from a team of agency greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and the state wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and • The exception provides habitat/conservation values, services, and functions that are at least equal to the lost or degraded values (see management approach in Appendix B) to the greater sage-grouse. 	
<p>GRSG-M-FMUL-ST-072-Standard</p> <p>In general habitat management areas, any new leases must include appropriate Controlled Surface Use and Timing Limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-M-FMUL-ST-072-Standard</p> <p>In general habitat management areas, any new leases must include appropriate Controlled Surface Use and Timing Limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-M-FMUL-ST-071-Standard</p> <p>In GHMA, any new leases must include appropriate Controlled Surface Use and Timing Limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
Fluid Minerals – Leased			
<p>GRSG-M-FML-ST-073-Standard</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-M-FML-ST-073-Standard</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-M-FML-ST-072-Standard</p> <p>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.</p>	No Change
<p>GRSG-M-FML-ST-074-Standard</p> <p>In priority habitat management areas, 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 1.</p>	<p>GRSG-M-FML-ST-074-Standard</p> <p>In priority habitat management areas, 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 Appendix B, Table B-1.</p>	<p>GRSG-M-FML-ST-073-Standard</p> <p>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 Appendix B, Table B-1.</p>	Clarification
<p>GRSG-M-FML-ST-075-Standard</p> <p>In general habitat management areas, authorize new transmission line corridors, transmission line rights-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-075-Standard</p> <p>In general habitat management areas, authorize new transmission line corridors, transmission line rights-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-074-Standard</p> <p>In GHMA, authorize new transmission line corridors, transmission line rights-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.</p>	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-M-FML-ST-076-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-ST-076-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-ST-075-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>No Change</p>
<p>GRSG-M-FML-ST-077-Standard</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-ST-077-Standard</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-ST-076-Standard</p> <p>In PHMA and GHMA, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>No Change</p>
<p>GRSG-M-FML-GL-078-Guideline</p> <p>In priority and general habitat management areas, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-078-Guideline</p> <p>In priority and general habitat management areas, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-077-Guideline</p> <p>In PHMA and GHMA, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-M-FML-GL-079-Guideline</p> <p>On existing federal leases in priority habitat management areas, 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 the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-079-Guideline</p> <p>On existing federal leases in priority habitat management areas, 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 the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-078-Guideline</p> <p>On existing federal leases in priority habitat management areas, 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 the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>No Change</p>
<p>GRSG-M-FML-GL-080-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-GL-080-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-GL-079-Guideline</p> <p>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.</p>	<p>No Change</p>
Fluid Minerals – Operations			
<p>GRSG-M-FMO-ST-081-Standard</p> <p>In priority habitat management areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-081-Standard</p> <p>In priority habitat management areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-080-Standard</p> <p>In PHMA, do not authorize employee camps.</p>	<p>No Change</p>
<p>GRSG-M-FMO-ST-082-Standard</p> <p>In priority habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor</p>	<p>GRSG-M-FMO-ST-082-Standard</p> <p>In priority habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor</p>	<p>GRSG-M-FMO-ST-081-Standard</p> <p>In PHMA, when feasible, do not locate tanks or other structures that may be used as</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
perches. If this is not feasible, use perch deterrents.	perches. If this is not feasible, use perch deterrents.	raptor perches. If this is not feasible, use perch deterrents.	
<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-GL-082-Guideline</p> <p>In PHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	No Change
<p>GRSG-M-FMO-GL-084-Guideline</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-084-Guideline</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In PHMA and GHMA, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	No Change
<p>GRSG-M-FMO-GL-085-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-GL-085-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-GL-084-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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 	No Change

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>impoundments to reduce breeding habitat for mosquitoes.</p> <ul style="list-style-type: none"> • 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. 	<p>impoundments to reduce breeding habitat for mosquitoes.</p> <ul style="list-style-type: none"> • 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. 	<p>impoundments to reduce breeding habitat for mosquitoes.</p> <ul style="list-style-type: none"> • 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. 	

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<ul style="list-style-type: none"> Remove or re-inject produced water. Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<ul style="list-style-type: none"> Remove or re-inject produced water. Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<ul style="list-style-type: none"> Remove or re-inject produced water. Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
<p>GRSG-M-FMO-GL-086-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FMO-GL-086-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FMO-GL-085-Guideline</p> <p>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.</p>	No Change
Coal Mines – Unleased			
<p>GRSG-M-CMUL-ST-087-Standard</p> <p>When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas.</p>	<p>GRSG-M-CMUL-ST-088-Standard</p> <p>Delete</p>	<p>GRSG-M-CMUL-ST-088-Standard</p> <p>Delete</p>	No coal activity occurs on NFS units in this part of CO
Coal Mines – Leased			
<p>GRSG-M-CML-ST-088-Standard</p> <p>In priority habitat management areas, do not authorize new appurtenant surface facilities related to existing underground mines unless no technical feasible alternative exists. If</p>	<p>GRSG-M-CML-ST-089-Standard</p> <p>Delete</p>	<p>GRSG-M-CML-ST-089-Standard</p> <p>Delete</p>	No coal activity occurs on NFS units in this part of CO

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas, locate them with any existing disturbed areas, if possible. If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements, as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.</p>			
<p>GRSG-M-CML-GL-089-Guideline</p> <p>In priority and general habitat management areas, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore the greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-090-Guideline</p> <p>Delete</p>	<p>GRSG-M-CML-GL-090-Guideline</p> <p>Delete</p>	<p>No coal activity occurs on NFS units in this part of CO</p>
<p>Locatable Minerals</p>			
<p>GRSG-M-LM-ST-090-Standard</p> <p>In priority habitat management areas, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-087-Standard</p> <p>In priority habitat management areas, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-086-Standard</p> <p>In PHMA, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>No Change</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
<p>GRSG-M-LM-GL-091-Guideline</p> <p>In priority and general habitat management areas, 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 Act 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-088-Guideline</p> <p>In priority and general habitat management areas, 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 Act 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-087-Guideline</p> <p>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 Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>No Change</p>
<p>GRSG-M-LM-GL-092-Guideline</p> <p>In priority and general habitat management areas, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-089-Guideline</p> <p>In priority and general habitat management areas, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-088-Guideline</p> <p>In PHMA and GHMA, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>No Change</p>
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-093-Guideline</p> <p>In priority and general habitat management areas, 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 the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p> <p>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</p>	<p>GRSG-M-NEL-GL-089-Guideline</p> <p>In PHMA, recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses would include stipulations to restrict surface use, occupancy and seasonal activities for exploration.</p> <p>In PHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and appropriate stipulations (see plan</p>	<p>Clarification of Regulatory Process</p> <p>Clarification of Plan Content Definition</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
	<p>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>components 005 to 010), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend the BLM issuing new leases and lease modifications.</p> <p>In PHMA where development would be by underground mining methods, include stipulations that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p> <p>At lease readjustment or lease renewal, evaluate stipulations to provide to the BLM to restrict surface use, occupancy and seasonal activities in PHMA. Where existing leases either are, or will be, developed by surface mining methods, include stipulations to reclaim disturbed lands to restore applicable greater sage-grouse habitat.</p>	
<p>GRSG-M-NEL-GL-094-Guideline</p> <p>In priority and general habitat, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-091-Management Approach</p> <p>In priority and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse</p>	<p>GRSG-M-NEL-GL-090- Guideline</p> <p>In PHMA and GHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Clarification of Regulatory Process</p> <p>Clarification of Plan Content Definition</p>

No Action Alternative (Colorado)	Proposed Action (Colorado) DEIS	Proposed Action (Colorado) FEIS	Issue/Clarification
	habitat.		
Mineral Materials			
<p>GRSG-M-MM-ST-095-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-091-Standard</p> <p>In PHMA, do not authorize new mineral material disposal or development.</p>	No Change
<p>GRSG-M-MM-ST-096-Standard</p> <p>In priority habitat management areas, 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 p.m. and 9 a.m. 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.</p>	<p>GRSG-M-MM-ST-093-Standard</p> <p>In priority habitat management areas, 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 p.m. and 9 a.m. 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.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>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 p.m. and 9 a.m. 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.</p>	No Change
<p>GRSG-M-MM-ST-097-Standard</p> <p>In priority and general habitat management areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>In priority and general habitat management areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix B, Table B-1).</p>	<p>GRSG-M-MM-ST-093-Standard</p> <p>In PHMA and GHMA, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix B, Table B-1).</p>	Clarification

Table 2-6. Idaho - Comparison of alternatives¹

¹Priority, important, and general habitat management areas may contain non-habitat. Management direction would not apply to non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>No Change</p>
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas and sagebrush focal areas.² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority and important habitat management areas and sagebrush focal areas except for valid</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas. Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority and important habitat management areas except for</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of PHMA, IHMA, and GHMA. These HMAs represent a management continuum which, in priority habitat management areas, aim to provide a high level of protection to greater sage-grouse and habitat, to general habitat management areas, which</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
existing rights and existing authorized uses.	valid existing rights and existing authorized uses.	provide a relatively flexible management approach. Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority and important habitat management areas except for existing rights and existing authorized uses.	
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In all greater sage-grouse habitat, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in all greater sage-grouse habitat, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in all greater sage-grouse habitat, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 4% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse</p>	<p>Clarification</p> <p>Consistency with Literature</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	grouse based on seasonal habitat requirements are in Appendix C, Table C-1 .	based on seasonal habitat requirements are in Appendix C, Table C-1.	
Nothing in 2015 Plan	<p>GRSG-GEN-MA-004-Management Approach</p> <p>Every 5 years or when a demonstrated need for change exists, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map. These evaluations will occur in conjunction with an interagency team, which includes the BLM and State of Idaho, to ensure consistency across administrative boundaries.</p>	<p>GRSG-GEN-MA-004-Management Approach</p> <p>Every 5 years or when a demonstrated need for change exists, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map. These evaluations will occur in conjunction with the Interagency Technical Team, which includes the BLM and State of Idaho, to ensure consistency across administrative boundaries.</p>	Habitat Management Area Designation
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Southwestern Montana will use a 3% disturbance cap until the State of Montana Strategy, which uses a 5% disturbance cap for all lands and all disturbances, is fully implemented. The BLM in Montana has developed</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and important habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit, regardless of ownership, and the new use will not cause exceedance of the 3% cap.¹</p> <p>¹The description of the Southwestern Montana disturbance cap remains applicable to SW Montana. SW Montana is not part of this EIS process.</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In PHMA and IHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit, regardless of ownership, and the new use will not cause exceedance of the 3% cap.¹</p> <p>¹ The description of the Southwestern Montana disturbance cap remains applicable to SW Montana. SW Montana is not part of this EIS process.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain and Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Modifying Disturbance Caps</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>conditions to be met before the change in the disturbance cap. Discretionary activities that might result in disturbance above 3% (5% in Montana when fully implemented) at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>			
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-006-Management Approach</p>	<p>GRSG-GEN-ST-006-Standard</p>	<p>Changing Net Conservation Gain and Adjustment of Compensatory</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	<p><u>The following would be used to implement GRSG-GEN-ST-005-Standard:</u></p> <p><u>a. Through coordination with the State of Idaho, it is determined that the project cannot be achieved, technically or economically, outside of this management area; and</u></p> <p><u>b. The project location and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include colocation within the footprint for existing infrastructure, to the extent practicable; and</u></p> <p><u>c. The project results in no net loss to GRSG Key habitat or with beneficial mitigation actions reduces habitat fragmentation or other threats within the Conservation Area; and</u></p> <p><u>d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and</u></p> <p><u>e. The project will not exceed the disturbance cap.</u></p>	<p>Authorize developments in PHMA and IHMA only if the following criteria are met:</p> <p>a. It is determined that the project cannot be achieved, technically or economically, outside of this management area; and</p> <p>b. The project location and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include colocation within the footprint for existing infrastructure, to the extent practicable; and</p> <p>c. The project results in no net loss to GRSG Key habitat or with beneficial mitigation actions reduces habitat fragmentation or other threats within the Conservation Area; and</p> <p>d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation (Appendix C- ID Mitigation Strategy); and</p> <p>e. The project will not exceed the disturbance cap.</p>	<p>Mitigation Frameworks</p>
		<p>GRSG-GEN-MA-007-Management Approach</p>	<p>Supports GRSG-GEN-ST-006-Standard</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
		<p>When implementing GRSG-GEN-ST-006-Standard:</p> <ul style="list-style-type: none"> • The determination that the project cannot be achieved, technically or economically, outside of this management area is done through coordination with the State of Idaho; and • Large-scale anthropogenic disturbances in PHMA and IHMA will be reviewed by the Interagency Technical Team. 	
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority, general, and important management areas and sagebrush focal areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights 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 Mitigation Framework (Appendix B).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>Delete</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>Delete</p>	<p>Deleted-duplicative with GRSG-GEN-ST-006-Standard and GRSG-LR-SUA-GL-017-Guideline</p>
<p>GRSG-GEN-ST-006-Standard</p>	<p>GRSG-GEN-ST-007-Standard</p>	<p>GRSG-GEN-ST-008-Standard</p>	<p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.	Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.	In PHMA and IHMA, do not authorize new large scale infrastructure or facilities that create sustained noise levels of ≥ 10 dB above ambient baseline at the perimeter of an occupied lek during lekking (from March 15 to May 1) from 6 p.m. to 9 a.m.	Consistency with State Plan
Nothing in the 2015 Plan		GRSG-GEN-MA-009-Management Approach When implementing GRSG-GEN-ST-008-Standard, in coordination with the State of Idaho, specific noise protocols for measurement and implementation will be developed as additional research and information emerges and as needed and mutually agreed to. These measures would be considered at the site-specific project level where and when appropriate.	Supports GRSG-GEN-ST-008-Standard
GRSG-GEN-GL-007-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.	GRSG-GEN-GL-008-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.	GRSG-GEN-GL-010-Guideline During breeding and nesting (from March 15 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.	No Change
GRSG-GEN-GL-008-Guideline When breeding and nesting habitat overlaps with other seasonal habitat,	GRSG-GEN-GL-008-Guideline Delete	GRSG-GEN-GL-008-Guideline Delete	Deleted-incorporated into

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>habitat should be managed for breeding and nesting desired conditions in Table 1.</p>			<p>GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures 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: 2 miles in priority habitat management areas; 2 miles (communication/metrological), 1.2 miles (transmission lines) and 0.6 miles (distribution lines) in important habitat management areas; and 0.6 miles in general habitat management areas from the perimeter of occupied leks. Local conditions (e.g., vegetation or topography), should be used to determine the potential to disrupt breeding or nesting by greater sage-grouse.</p>	<p>GRSG-GEN-GL-011-Guideline</p> <p>Development of tall structures 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: 2 miles in priority habitat management areas; 2 miles (communication/metrological), 1.2 miles (transmission lines) and 0.6 miles (distribution lines) in important habitat management areas; and 0.6 miles in general habitat management areas from the perimeter of occupied leks. Local conditions (e.g. vegetation or topography), should be used to determine the potential to disrupt breeding or nesting by greater sage-grouse.</p>	<p>Modifying Lek Buffers</p>
<p>Adaptive Management</p>			
<p>GRSG-AM-ST-010-Standard</p> <p>If a hard trigger is identified, management direction applying to priority habitat management areas will be applied to important habitat management areas within the Conservation Area in Idaho, and the Sage-Grouse Implementation Task Force will evaluate available and</p>	<p>GRSG-AM-ST-010-Standard</p> <p>If a hard trigger is tripped, management direction applying to priority habitat management areas will be applied to important habitat management areas within the Conservation Area in Idaho. The response identified in Appendix C will be followed.</p>	<p>GRSG-AM-ST-012-Standard</p> <p>If a hard or soft trigger is reached, and the causal factor is related to FS management, defer issuance for such projects or activities until an appropriate interagency management response strategy is implemented. The management response strategy shall</p>	<p>Adaptive Management Review Process</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>pertinent data and recommend additional potential implementation level activities to the appropriate Forest Service line officer in both Idaho and Southwest Montana (Appendix C).</p>	<p>When habitat or maximum male population count exceeds the 2011 baseline for habitat or population levels within the Conservation Area, IHMA managed as PHMA will revert to management as IHMA within the Conservation Area.</p>	<p>include reverting back to prior management once the identified causal factor is resolved.</p>	
		<p>GRSG-AM-ST-013-Standard</p> <p>If a hard trigger is reached, approve activities in IHMA only if consistent with PHMA management direction until adaptive regulatory criteria are met.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-AM-ST-011-Standard</p> <p>If a soft trigger is identified, the Forest Service will review available and pertinent data in coordination with the Sage-grouse Implementation Task Force, which may recommend potential implementation level activities to the appropriate agency line officer (Appendix C).</p>	<p>GRSG-AM-MA-011-Management Approach</p> <p>If a soft trigger is tripped, the Forest Service will review available and pertinent data in coordination with an Interagency Technical Team, which may recommend potential implementation level activities to the appropriate agency line officer (Appendix C).</p>	<p>GRSG-AM-MA-014-Management Approach</p> <p>If a hard or soft trigger is identified based on either population monitoring or habitat monitoring, apply the Idaho Adaptive Management Plan (Appendix C) to determine causal factors related to population and habitat hard and soft triggers and to identify and implement appropriate management responses.</p>	<p>Adaptive Management Review Process</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-AM-ST-012-Standard</p>
<p>Land and Realty</p>			
<p>Specials Use Authorizations (Non-Recreation)</p>			
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitat, retrofit existing tall structures (e.g., power poles, communication tower sites) with perch</p>	<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitat in priority habitat management areas, retrofit existing tall structures (e.g., power poles,</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>Delete</p>	<p>Duplicative with GRSG-LR-SUA-ST-019-Standard</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
deterrents or other anti-perching devices within 2 years of signing the ROD.	communication tower sites) with perch deterrents or other anti-perching devices within 3 years of reissuing permits.		
<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, restrict issuance of new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority habitat management areas, only allow new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. In important habitat management areas allow new lands special-use authorizations if impacts to the greater sage-grouse or its habitat are co-located or offset by using compensatory mitigation. Any mitigation will be in accordance with the Mitigation Framework (Appendix C).</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In PHMA and IHMA, do not authorize new lands special-uses for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites unless in compliance with GRSG-GEN-ST-006-Standard.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Adaptive Management Review Process</p>
Nothing in 2015 Plan	<p>GRSG-LR-SUA-ST-014-Standard Lands special-use authorizations in PHMA and IHMA must meet the following project screening criteria:</p>	<p>GRSG-LR-SUA-ST-016-Standard Lands special-use authorizations in PHMA must meet the following project screening criteria:</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	<p><u>a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations will not be subject to these criteria when it can be shown that long-term impacts from those renewals or amendments will be substantially the same as the existing development);</u></p> <p><u>b. The development with associated mitigation will not result in a net loss of GRSG Key habitat or of the respective PHMA;</u></p> <p><u>c. The project and associated impacts will not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area;</u></p> <p><u>d. The development cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is co-located within the footprint of existing infrastructure.</u></p>	<p>a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations will not be subject to these criteria when it can be shown that long-term impacts from those renewals or amendments will be substantially the same as the existing development);</p> <p>b. The development with associated mitigation will not result in a net loss of GRSG Key habitat or of the respective PHMA;</p> <p>c. The project and associated impacts will not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area;</p> <p>d. The development cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to an existing authorization; or 2) is co-located within the footprint of existing infrastructure.</p>	<p>Adaptive Management Review Process</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>Nothing in 2015 Plan</p>	<p>GRSG-LR-SUA-MA-015-Management Approach</p> <p>Large scale anthropogenic disturbances in PHMA and IHMA will be reviewed by the Technical and Policy Teams as described in Appendix C.</p>	<p>GRSG-LR-SUA-MA-016-Management Approach</p> <p>Delete</p>	<p>Duplicative with GRS-GEN-MA-007-Management Approach</p>
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-GL-016-Guideline</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, within existing designated corridors or rights-of-way <u>or</u> if the authorization includes stipulations to minimize impacts to the GRS-GL and its habitat.</p>	<p>GRSG-LR-SUA-GL-017-Guideline</p> <p>In GHMA, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, within existing designated corridors or rights-of-way or if the authorization includes stipulations to minimize impacts to the GRS-GL and its habitat.</p>	<p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, 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 the greater sage-grouse or its habitat. In important habitat management areas only authorize temporary lands special-uses if habitat</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In PHMA, 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 the greater sage-grouse or its habitat. In IHMA only authorize temporary lands special-uses if habitat loss is offset by avoidance, minimization, or using compensatory mitigation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	loss is offset by avoidance, minimization, or using compensatory mitigation.		
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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 communication tower sites).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and important habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal) 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 communication tower sites).</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In PHMA and IHMA, require appropriate protective stipulations (e.g., noise, tall structure, guy wire marking) 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 communication tower sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In priority and important habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-020-Standard</p> <p>In PHMA and IHMA, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when a lands special-use authorization is revoked or terminated,</p>	<p>GRSG-LR-SUA-ST-020-Standard</p> <p>In priority, important, and general habitat management areas, when a lands special-use authorization is revoked or terminated, and no future use is</p>	<p>GRSG-LR-SUA-ST-021-Standard</p> <p>In PHMA, IHMA, and GHMA, when a lands special-use authorization is revoked or terminated, and no future use is contemplated, require the authorization</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
and no future use is contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).	contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).	holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).	
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority management areas and sagebrush focal areas, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse and its habitat are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-LR-SUA-ST-015-Standard</p>
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>Delete</p>	<p>Required by existing law, regulation, or policy</p>
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net</p>	<p>GRSG-LR-LOA-<u>GL-021-Guideline</u></p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse.</p>	<p>GRSG-LR-LOA-ST-022-Standard</p> <p>In PHMA, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>			<p>Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation gain</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA-022-Management Approach</p> <p>In priority, important, and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-GL-023-Guideline</p> <p>In PHMA, IHMA, and GHMA with minority federal ownership, consider landownership adjustments to achieve a landownership pattern that consolidates and reduces fragmentation to sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>Land Withdrawal</p>			
<p>GRSG-LR-LW-GL-023-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>Elimination of Withdrawals</p>
<p>Wind and Solar</p>			

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-WS-ST-024-Standard</p> <p>In priority management areas and sagebrush focal areas, 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).</p>	<p>GRSG-WS-ST-023-Standard</p> <p>In priority management areas, 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).</p>	<p>GRSG-WS-ST-024-Standard</p> <p>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).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-WS-GL-025-Guideline</p> <p>In important habitat management areas, 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 the greater sage-grouse and its habitat.</p>	<p>GRSG-WS-GL-025-Guideline</p> <p>Delete</p>	<p>GRSG-WS-ST-025-Standard</p> <p>In IHMA, do not authorize new solar and wind energy utility-scale and/or commercial development unless existing authorized use applies. The authorization must comply with GRSG-GEN-ST-006-Standard.</p>	<p>Consistency with the 2012 Planning Rule</p>
Greater Sage-grouse Habitat			
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GRSGH-DC-024-Desired Condition</u></p> <p><u>Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.</u></p>	<p>GRSG-GRSGH-DC-026-Desired Condition</p> <p>Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.</p>	<p>Treatment of Invasive Species</p>
<p>GRSG-GRSGH-O-026-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other</p>	<p>GRSG-GRSGH-O-025-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the</p>	<p>GRSG-GRSGH-O-027-Objective</p> <p>Every 10 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species</p>	<p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
undesirable species based upon the number of acres shown in Table 2 .	number of acres shown in Appendix C, Table C-2 .	based upon the number of acres shown in Appendix C, Table C-2.	
<p>GRSG-GRSGH-ST-027-Standard</p> <p>Design habitat restoration projects to move towards desired conditions (Table 1).</p>	<p>GRSG-GRSGH-ST-027-Standard</p> <p>Delete</p>	<p>GRSG-GRSGH-ST-027-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-O-026-Objective</p> <p>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts for each National Forest and Grassland.</p>	<p>GRSG-GRSGH-O-028-Objective</p> <p>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts for each National Forest and Grassland to aid in management.</p>	<p>Treatment of Invasive Species</p>
<p>GRSG-GRSGH-GL-028-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GRSGH-GL-027-Guideline</p> <p>No Change</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>No Change</p>
<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In priority, important, and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In PHMA, IHMA, and GHMA, actions and authorizations should include design features to limit the spread and effect of non-native invasive plant species.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-GRSGH-GL-030-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority, important, and general habitat management areas and sagebrush focal areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from greater sage-grouse desired conditions in Table 1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1).</p>	<p>GRSG-GRSGH-MA-029-Management Approach</p> <p>To facilitate safe and effective fire management actions in priority, important, and general habitat management areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from greater sage-grouse desired conditions in Appendix C, Table C-1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix C, Table C-1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In PHMA, IHMA, and GHMA, do not authorize fuel treatments in high-risk areas unless to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix C, Table C-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority, important, and general habitat management areas, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions (Appendix C, Table C-1).</p>	<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In PHMA, IHMA, and GHMA, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions (Appendix C, Table C-1).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority, important, and general habitat management areas and, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix C, Table C-1).</p>	<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In PHMA, IHMA, and GHMA, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix C, Table C-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
Nothing in 2015 Plan	<p>GRSG-GRSGH-MA-032-Management Approach</p> <p>Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.</p>	<p>GRSG-GRSGH-MA-034-Management Approach</p> <p>Prioritize treatments for established invasive annual and noxious plant populations that have the potential to have impacts to sage-grouse habitat in PHMA, IHMA, and GHMA. Early detection and rapid response treatments remain the focus.</p>	<p>Treatment of Invasive Species</p> <p>Supports GRSG-GRSGH-DC-026-Desired Condition</p> <p>Consistency with the 2012 Planning Rule</p>
Nothing in 2015 Plan	<p>GRSG-GRSGH-MA-033-Management Approach</p> <p>In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.</p>	<p>GRSG-GRSGH-MA-035-Management Approach</p> <p>In designing post wildfire recovery treatments, consider resistance and resilience, ecological site descriptions, and state and transition models.</p>	<p>Treatment of Invasive Species</p> <p>Supports GRSG-GRSGH-GL-033-Guideline</p>
Livestock Grazing			
<p>GRSG-LG-DC-033-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Table 1).</p>	<p>GRSG-LG-DC-033-Desired Condition</p> <p>Delete</p>	<p>GRSG-LG-DC-033-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-LG-ST-034-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-034-Standard</p> <p>In priority and important habitat management areas, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-036-Standard</p> <p>In PHMA and IHMA, do not approve construction of water developments that would have a net negative impact to greater sage-grouse habitat.</p>	<p>Changing Livestock Grazing Guidelines</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-LG-GL-035-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitat in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-035-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>In PHMA, IHMA, and GHMA, if livestock grazing is limiting achievement of seasonal desired conditions on capable ecological sites, adjust livestock management, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-036-Management Approach</p> <p>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than desired seasonal habitat conditions, determine factors limiting achievement of the desired seasonal habitat conditions.</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p>Delete</p>	<p>Duplicative with required Forest Plan Monitoring</p>
<p>GRSG-LG-GL-036-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when grazing permits are waived</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>Delete</p>	<p>Removed- covered in existing FS policy and direction</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>			
<p>GRSG-LG-GL-037-Guideline</p> <p>Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance of breeding GRSG.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 15 to May 1) should be restricted to prevent disturbance of breeding GRSG.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-038-Guideline</p> <p>During the breeding and nesting season (from 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.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks not allowed.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Routes that minimize disturbance to breeding and nesting GRSG should be utilized to the extent practicable, and stopovers on active leks should be avoided.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-039-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the</p>	<p>GRSG-LG-GL-040-Guideline</p> <p>Fence construction or reconstruction should be avoided in areas of high or</p>	<p>Incorporation of new science</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
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).	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).	moderate collision risk (Stevens et al. 2013), or as latest science indicates. If this is not feasible, collision risk should be mitigated through design features (e.g., marking, laydown fences, or other design features).	
<p>GRSG-LG-GL-040-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-040-Guideline</p> <p>To prevent predation from perching raptors, new permanent livestock facilities taller than 4 feet (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles in priority, 0.6 miles in important, and 0.12 miles in general habitat management areas from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-041-Guideline</p> <p>To prevent predation from perching raptors and raven nest sites, new tall permanent livestock facilities (e.g. windmills, water storage tanks, corrals) should not be constructed within 1.2 miles in PHMA, 0.6 miles in IHMA, and 0.12 miles in GHMA from the perimeter of occupied leks.</p>	<p>Clarification of Buffer Distances</p> <p>Clarification</p>
Fire Management			
<p>GRSG-FM-DC-041-Desired Condition</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high</p>	<p>GRSG-FM-MA-041-Management Approach</p> <p>In priority, important, and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along</p>	<p>GRSG-FM-DC-042-Desired Condition</p> <p>In PHMA, IHMA, and GHMA, sagebrush habitat is protected from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat is a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
value resource along with other high value resources and assets.	with other high value resources and assets.		
<p>GRSG-FM-ST-042-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-042-Standard</p> <p>In priority, important, and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1 or for pile burning.</p>	<p>GRSG-FM-GL-043-Guideline</p> <p>In PHMA, IHMA, and GHMA, prescribed fire in 12-inch or less precipitation zones should not be used unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1 or for pile burning.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-FM-ST-043-Standard</p> <p>In priority, important, and general management habitat management areas and sagebrush focal areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-043-Management Approach</p> <p>In priority, important, and general management habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In PHMA, IHMA, and GHMA, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p> <p>Required by existing law, regulation, or policy</p>
<p>GRSG-FM-GL-044-Guideline</p> <p>In wintering or breeding and nesting habitat, sagebrush removal or</p>	<p>GRSG-FM-GL-044-Guideline</p> <p>In order to maintain sagebrush in wintering or breeding and nesting habitat,</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>In order to maintain sagebrush in wintering or breeding and nesting habitat,</p>	<p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.	sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.	sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.	
<p>GRSG-FM-GL-045-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-MA-045-Management Approach</p> <p>In priority, <u>important</u>, and general habitat management areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term and will prevent fire spread into GRSG habitat.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>In PHMA, IHMA, and GHMA, when reseeding in fuel breaks, fire-resistant native plant species should be used if <u>practicable</u>, or use fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term and will prevent fire spread into GRSG habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-046-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>Delete</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-FM-GL-047-Guideline</p> <p>Locating <u>temporary</u> wildfire suppression facilities (e.g., <u>incident command posts</u>, spike camps, helibases, <u>mobile retardant</u></p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>Locate wildfire suppression facilities (i.e., <u>base camps</u>, spike camps, <u>drop points</u>,</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) <u>should be located in</u></p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>staging areas, helibases, etc.) in areas where physical disturbance to Greater Sage-Grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>areas where physical disturbance to greater sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-048-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>In priority, important, and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In PHMA, IHMA, and GHMA, cross-country vehicle travel during fire operations should be minimized. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority, important, and general habitat management areas, 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 determined by</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In PHMA, IHMA, 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 determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
determined by fireline leadership and incident commanders.	fireline leadership and incident commanders.		
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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).</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions should result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>In PHMA, IHMA, and GHMA, approve prescribed fire prescriptions that result in improvement of desired conditions for GRSG and do not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into planned fuel-break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-050-Management Approach</p> <p>In priority, important, and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel-break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-051-Guideline</p> <p>In PHMA, IHMA, and GHMA, planned fuel-breaks should incorporate roads and natural fuel breaks to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering</p>	<p>GRSG-FM-ST-051-Standard</p> <p>In priority, important, and general habitat management areas all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to</p>	<p>GRSG-FM-ST-052-Standard</p> <p>In PHMA, IHMA, and GHMA all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.	minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.	invasive annual grasses and other invasive plant species and noxious weeds.	
<p>GRSG-FM-GL-053-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>Include unit-specific greater sage-grouse fire management-related information to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); use local operating plans and resource advisor plans during fire situations to inform management decisions and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p>
<p>GRSG-FM-GL-054-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>Localized maps of priority, important, and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>Delete</p>	<p>Duplicative with GRSG-FM-MA-053-Management Approach</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>In or near priority, important, and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>In or near priority, important, and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>In or near PHMA, IHMA, and GHMA, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p> <p>Consistency with the</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
			2012 Planning Rule
<p>GRSG-FM-GL-056-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-055-Guideline</p> <p>On critical fire weather days, when allocation of resource positioning is being decided, protection of greater sage-grouse habitat should receive high consideration, along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority, important, and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of PHMA, IHMA, and GHMA, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-FM-GL-058-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-057-Guideline</p> <p>In PHMA, IHMA, and GHMA, fire retardant and mechanized equipment should be used only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p>
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority, important, and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-058-Guideline</p> <p>In priority, important, and general habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	<p>GRSG-FM-GL-058-Guideline</p> <p>In PHMA, IHMA, and GHMA, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible and minimize sagebrush loss.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-042-Desired Condition</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
Wild Horse and Burro			
<p>GRSG-HB-GL-060-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, wild horse and burro populations should be managed within established appropriate management levels to maintain, restore, or enhance greater sage-grouse desired habitat conditions (Table 1).</p>	<p>GRSG-HB-GL-060-Guideline</p> <p>Delete</p>	<p>GRSG-HB-GL-060-Guideline</p> <p>Delete</p>	<p>Removed - There are no Herd Management Areas within the NFS plan area in Idaho.</p>
<p>GRSG-HB-GL-061-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.</p>	<p>GRSG-HB-GL-061-Guideline</p> <p>Delete</p>	<p>GRSG-HB-GL-061-Guideline</p> <p>Delete</p>	<p>Removed - There are no Herd Management Areas within the NFS plan area in Idaho.</p>
Recreation			
<p>GRSG-R-DC-062-Desired Condition</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-062-Desired Condition</p> <p>Delete</p>	<p>GRSG-R-DC-062-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-R-ST-063-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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 greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-059-Guideline</p> <p>In priority habitat management areas, do not authorize temporary recreational 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 the greater sage-grouse or its habitat. <u>In important habitat management areas only authorize temporary recreational special-uses if habitat loss is offset by avoidance, minimization, or using compensatory mitigation.</u></p>	<p>GRSG-R-GL-059-Guideline</p> <p>In PHMA, do not authorize temporary recreational 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 the greater sage-grouse or its habitat. In IHMA only authorize temporary recreational special-uses if habitat loss is offset by avoidance, minimization, or using compensatory mitigation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Consistency with the 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-R-GL-064-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-MA-060-Management Approach</p> <p>In priority, important, and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In PHMA, IHMA, and GHMA, when authorizing new recreation special-use authorizations, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-065-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, new recreational facilities or</p>	<p>GRSG-R-GL-061-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities will be <u>co-</u></p>	<p>GRSG-R-GL-061-Guideline</p> <p>In PHMA, new recreational facilities or expansion of existing recreational facilities will be co-located with existing</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>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 the greater sage-grouse or its habitat or the development is required for visitor safety.</p>	<p>located with existing infrastructure or located in already disturbed areas, unless exception is required for visitor safety. In important habitat management areas allow new recreational facilities or expansion of existing recreational facilities if facilities can be co-located or impacts can be offset by compensatory mitigation, unless exception is required for visitor safety. Any mitigation will be in accordance with the Mitigation Framework (Appendix C).</p>	<p>infrastructure or located in already disturbed areas, unless exception is required for visitor safety. In important habitat management areas allow new recreational facilities or expansion of existing recreational facilities if facilities can be co-located or impacts can be offset by compensatory mitigation, unless exception is required for visitor safety. Any mitigation will be in accordance with the Mitigation Framework (Appendix C).</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p>
Roads/Transportation			
<p>GRSG-RT-DC-066-Desired Condition</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experiences minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.</p>	<p>GRSG-RT-DC-062-Desired Condition</p> <p>In priority, important, and general habitat management areas on roads and trails within the forest transportation system and those authorized under a special-use authorization, the greater sage-grouse experiences minimal disturbance and mortality.</p>	<p>GRSG-RT-DC-062-Desired Condition</p> <p>In PHMA, IHMA, and GHMA on roads and trails within the forest transportation system and those authorized under a special-use authorization, the greater sage-grouse experiences minimal disturbance and mortality.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-RT-ST-067-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection)</p>	<p>GRSG-RT-ST-063-Standard</p> <p>In priority, important, and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for</p>	<p>GRSG-RT-ST-063-Standard</p> <p>In PHMA and IHMA, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>except when necessary for administrative access to existing and authorized uses, 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 mitigate impacts.</p>	<p>administrative access to existing and authorized uses, 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 mitigate impacts.</p>	<p>authorized uses, public safety, to access existing rights, or if any impacts to habitat or to greater sage-grouse can be fully mitigated. 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 mitigate impacts.</p>	
<p>GRSG-RT-ST-068-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-064-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-064-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 15 to May 1) from 6 p.m. to 9 a.m.</p>	<p>No Change</p>
<p>GRSG-RT-ST-069-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not allow public motor vehicle use on temporary energy development roads.</p>	<p>GRSG-RT-ST-069-Standard</p> <p>Delete</p>	<p>GRSG-RT-ST-069-Standard</p> <p>Delete</p>	<p>Removed- duplicative with existing Forest Service policy and direction</p>
<p>GRSG-RT-GL-070-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-RT-ST-063-Standard</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-RT-GL-071-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-RT-ST-063-Standard</p>
<p>GRSG-RT-GL-072-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).</p>	<p>GRSG-RT-GL-072-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-072-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-MA-065-Management Approach</p> <p>In priority, important, and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-GL-065-Guideline</p> <p>In PHMA, IHMA, and GHMA, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Clarification of Plan Content Definition</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-RT-GL-074-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-RT-MA-066-Management Approach</p> <p>In priority, important, and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-066-Guideline</p> <p>In PHMA, IHMA, and GHMA, road and road-way maintenance activities should not increase the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>Minerals</p>			
<p>Fluid-Unleased</p>			
<p>GRSG-M-FMUL-ST-075-Standard</p> <p>In priority and important habitat management areas, any new oil and gas leases must include a No Surface Occupancy 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 greater sage-grouse experts from the U.S. Fish and Wildlife Service,</p>	<p>GRSG-M-FMUL-ST-067-Standard</p> <p>In priority and important habitat management areas, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception, after review by the Technical and Policy Teams, could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • The population trend for the Greater Sage- 	<p>GRSG-M-FMUL-ST-067-Standard</p> <p>In PHMA and IHMA, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception, after review by the Interagency Technical Team, could be granted by the authorized officer if the proposal meets the following criteria:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or 	<p>Including Waivers, Exceptions, and Modifications on NSO Stipulations</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>the Forest Service, and state wildlife agency if:</p> <ul style="list-style-type: none"> • There will be no direct, indirect, or cumulative effects to greater sage-grouse or its habitat; 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 the greater sage-grouse 	<p>Grouse within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers;</p> <ul style="list-style-type: none"> • The development with associated mitigation will not result in a net loss of Greater Sage-Grouse key habitat or of the respective PHMA; • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; • Impacts could be fully offset through mitigation; or • Granting the exception provides an alternative beneficial to greater sage-grouse to a similar action occurring on a nearby parcel; or • Is collocated within the footprint of existing infrastructure; and 	<p>cumulative effects to the greater sage-grouse or its habitat; or</p> <ul style="list-style-type: none"> • Granting the exception provides an alternative beneficial to greater sage-grouse to a similar action occurring on a nearby parcel; and • Includes appropriate controlled surface use and timing limitation measures; and • Is consistent with GRSG-GEN-ST-006-Standard. 	

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	<ul style="list-style-type: none"> • Includes appropriate controlled surface use and timing limitation stipulations; and • The project will not exceed the disturbance cap 		
<p>GRSG-M-FMUL-ST-076-Standard</p> <p>In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-M-FMUL-ST-068-Standard</p> <p>In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-M-FMUL-ST-068-Standard</p> <p>In GHMA, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>No Change</p>
<p>GRSG-M-FMUL-ST-077-Standard</p> <p>In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>Delete</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p>
		<p>GRSG-M-FMUL-MA-069-Management Approach</p> <p>Appendix G has stipulations developed for when standards and guidelines call for specific restrictions on fluid minerals activities.</p>	<p>Supports GRSG-M-FMUL-ST-067-Standard and GRSG-M-FMUL-ST-068-Standard</p>
<p>Fluid-Leased</p>			
<p>GRSG-M-FML-ST-078-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, when approving the Surface Use</p>	<p>GRSG-M-FML-ST-069-Standard</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>In PHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases, will</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
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.	existing leases that are not yet developed, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.	require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.	Clarification
GRSG-M-FML-ST-079-Standard In priority and important habitat management areas and sagebrush focal areas , 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 1 .	GRSG-M-FML-ST-070-Standard In priority, important, and general habitat management areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in Appendix C, Table C-1 .	GRSG-M-FML-ST-071-Standard In PHMA, IHMA, and GHMA, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in Appendix C, Table C-1.	Elimination of Sagebrush Focal Areas
GRSG-M-FML-ST-080-Standard In general habitat management areas, 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 the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.	GRSG-M-FML-ST-071-Standard In general habitat management areas, authorize new transmission line corridors, transmission line rights-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit (Appendix G).	GRSG-M-FML-ST-072-Standard In GHMA, authorization of new transmission line corridors, transmission line rights-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases will include requirements necessary to reduce impacts to the greater sage-grouse and its habitat, consistent with the terms and conditions of the lease .	Clarification
GRSG-M-FML-ST-081-Standard Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse and if	GRSG-M-FML-MA-072-Management Approach Locate compressor stations on portions of a lease that are non-habitat and are not	GRSG-M-FML-GL-073-Guideline Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-	Consistency with the 2012 Planning Rule

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.	used by the greater sage-grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.	grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat.	
		<p>GRSG-M-FML-MA-074-Management Approach</p> <p>If locating compressor stations in non-habitat or areas that would have no impact on greater sage-grouse is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise consistent with GRSG-GEN-ST-007-Standard.</p>	<p>Supports GRSG-M-FML-GL-073-Guideline</p>
<p>GRSG-M-FML-ST-082-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-ST-082-Standard</p> <p>Delete</p>	<p>GRSG-M-FML-ST-082-Standard</p> <p>Delete</p>	<p>Duplicative with GRSG-M-FML-ST-070-Standard, GRSG-M-FML-ST-072-Standard, and GRSG-M-FML-GL-073-Guideline</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, operators should be encouraged to</p>	<p>GRSG-M-FML-GL-073-Guideline</p> <p>In priority, important, and general habitat management areas, the Surface Use Plan of Operation portion of the Application</p>	<p>GRSG-M-FML-GL-075-Guideline</p> <p>In PHMA, IHMA, and GHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, practicable, and consistent with the lease rights.</p>	
<p>GRSG-M-FML-GL-084-Guideline</p> <p>On existing federal leases in priority and important habitat management areas and sagebrush focal areas, 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 the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>On existing federal leases in priority and important habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-076-Guideline</p> <p>On existing federal leases in PHMA and IHMA, when surface occupancy is requested due to existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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</p>	<p>GRSG-M-FML-MA-075-Management Approach</p> <p>In priority, important, and general habitat management areas, 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</p>	<p>GRSG-M-FML-MA-077-Management Approach</p> <p>In PHMA, IHMA, 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 conservation measures and design features to the appropriate surface management instruments to the</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
instruments to the maximum extent permissible under existing authorities.	management instruments to the maximum extent permissible under existing authorities (Appendix G).	maximum extent permissible under existing authorities.	
Fluid-Operations			
GRSG-M-FMO-ST-086-Standard In priority and important habitat management areas and sagebrush focal areas , do not authorize employee camps.	GRSG-M-FMO-ST-076-Standard In priority and important habitat management areas, do not authorize employee camps.	GRSG-M-FMO-ST-078-Standard In PHMA and IHMA, do not authorize employee camps, <u>when feasible</u> .	Elimination of Sagebrush Focal Areas
GRSG-M-FMO-ST-087-Standard In priority and important habitat management areas and sagebrush focal areas , 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-ST-077-Standard In priority and important habitat management areas, 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-ST-079-Standard In PHMA and IHMA, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents, <u>when effective</u> .	Elimination of Sagebrush Focal Areas
GRSG-M-FMO-GL-088-Guideline In priority and important habitat management areas and sagebrush focal areas , closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-MA-078-Management Approach In priority and important habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-GL-080-Guideline In PHMA and IHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	Elimination of Sagebrush Focal Areas Consistency with the 2012 Planning Rule
GRSG-M-FMO-GL-089-Guideline In priority, important, and general habitat management areas and sagebrush focal areas , during drilling operations soil compaction should be minimized and soil structure should be maintained using the	GRSG-M-FMO-GL-079-Guideline In priority, important, and general habitat management areas, during drilling operations soil compaction should be minimized and soil structure should be maintained using the best available	GRSG-M-FMO-GL-081-Guideline In PHMA, IHMA, and GHMA, during drilling operations soil compaction should be minimized and soil structure should be maintained using the best available	Elimination of Sagebrush Focal Areas

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
best available techniques to improve vegetation reestablishment.	techniques to improve vegetation reestablishment.	techniques to improve vegetation reestablishment.	
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMO-GL-080-Guideline</p> <p>In priority, important, and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>GRSG-M-FMO-GL-082-Guideline</p> <p>In PHMA, IHMA, and GHMA, dams, impoundments, and ponds for mineral development should be constructed in such a way to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on 			

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>the surface.</p>			
	<p><u>GRSG-M-FMO-MA-081-Management Approach</u></p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-MA-083-Management Approach</p> <p>Utilize the following methods to reduce the potential for West Nile virus:</p> <ul style="list-style-type: none"> • 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 	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-M-FMO-GL-082-Guideline</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
	<p>areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<p>damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
<p>GRSG-M-FMO-GL-091-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, to keep habitat disturbance at a</p>	<p>GRSG-M-FMO-GL-082-Guideline</p> <p>In priority, important, and general habitat management areas, to keep habitat disturbance at a minimum, a phased</p>	<p>GRSG-M-FMO-GL-084-Guideline</p> <p>In PHMA, IHMA, and GHMA, to keep habitat disturbance at a minimum, a phased development approach should be</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>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.</p>	<p>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.</p>	<p>applied to fluid mineral lease/field development 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.</p>	
Coal Mines-Unleased			
<p>GRSG-M-CMUL-ST-092-Standard</p> <p>When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority and important habitat management areas and sagebrush focal areas.</p>	<p>GRSG-M-CMUL-ST-092-Standard</p> <p>Delete</p>	<p>GRSG-M-CMUL-ST-092-Standard</p> <p>Delete</p>	<p>There is no commercially available coal in ID- BLM is leasing agency</p>
Coal Mines- Leased			
<p>GRSG-M-CML-ST-093-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not authorize new appurtenant facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant facilities associated with existing mine leases cannot be located outside of priority and important habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if possible. If location within an existing disturbed area is not</p>	<p>GRSG-M-CML-ST-093-Standard</p> <p>Delete</p>	<p>GRSG-M-CML-ST-093-Standard</p> <p>Delete</p>	<p>There is no commercially available coal in ID- BLM is leasing agency</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.</p>			
<p>GRSG-M-CML-GL-094-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore the greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-094-Guideline</p> <p>Delete</p>	<p>GRSG-M-CML-GL-094-Guideline</p> <p>Delete</p>	<p>There is no commercially available coal in ID-BLM is leasing agency</p>
<p>Locatable Minerals</p>			
<p>GRSG-M-LM-ST-095-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-083-Standard</p> <p>In priority, important, and general habitat management areas, only approve Plans of Operation if they include mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-085-Standard</p> <p>In PHMA, IHMA, and GHMA, approve Plans of Operation if they include mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights granted by the General Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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 Act 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-084-Guideline</p> <p>In priority, important, and general habitat management areas, 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 Act 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-086-Guideline</p> <p>In PHMA, IHMA, 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 Mining Law of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-LM-GL-097-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-085-Guideline</p> <p>In priority and general habitat management areas, <u>when closing</u> abandoned mine sites <u>remove</u> tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>GRSG-M-LM-GL-087-Guideline</p> <p>In PHMA, IHMA, and GHMA, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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</p>	<p>GRSG-M-NEL-MA-086-Management Approach</p> <p><u>In priority, important, and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses,</u></p>	<p>GRSG-M-NEL-GL-088-Guideline</p> <p>In PHMA and IHMA, recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses would include stipulations to restrict surface use, occupancy and seasonal activities for exploration.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>protection of the greater sage-grouse and its habitat.</p>	<p>or leases, lease modifications, lease readjustments or lease renewals.</p> <p>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>In PHMA and IHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and appropriate stipulations (see plan components 005 to 010), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend the BLM issuing new leases and lease modifications.</p> <p>In PHMA and IHMA where development would be by underground mining methods, include stipulations that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p> <p>At lease readjustment or lease renewal, evaluate stipulations to provide to the BLM to restrict surface use, occupancy and seasonal activities in PHMA. Where existing leases either are, or will be, developed by surface mining methods, include stipulations to reclaim disturbed lands to restore applicable greater sage-grouse habitat.</p>	
<p>GRSG-M-NEL-GL-099-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal</p>	<p>GRSG-M-NEL-MA-087-Management Approach</p>	<p>GRSG-M-NEL-MA-089-Management Approach</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>areas, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.</p>	<p>In priority, important, and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>In PHMA, IHMA, and GHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
<p>Mineral Materials</p>			
<p>GRSG-M-MM-ST-100-Standard</p> <p>In priority management areas and sagebrush focal areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-88-Standard</p> <p>In priority management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-090-Standard</p> <p>In PHMA, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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 p.m. and 9 a.m. 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.</p>	<p>GRSG-M-MM-ST-89-Standard</p> <p>Do not allow free-use mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>GRSG-M-MM-ST-091-Standard</p> <p>Do not allow free-use mineral material collection from March 15 to May 1 between 6 pm and 9 am within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho) DEIS	Proposed Action (Idaho) FEIS	Issue/Clarification
<p>GRSG-M-MM-ST-102-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).</p>	<p>GRSG-M-MM-ST-90-Standard</p> <p>In priority, important, and general habitat management areas, management of existing or expansion of existing pits will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix C, Table C-1).</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>In PHMA, IHMA, and GHMA, management of existing or expansion of existing pits will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix C, Table C-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

Table 2-7. Nevada - Comparison of alternatives¹

¹Priority, general, and other habitat management areas may contain non-habitat. Management direction would not apply to non-habitat unless the proposed activity would result in direct, indirect, or cumulative effects to sage-grouse and/or its use of adjacent habitats.

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for greater sage-grouse 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 greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for greater sage-grouse 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 greater sage-grouse. Sagebrush vegetation communities provide contiguous habitat for greater sage grouse, which is resistant and resilient to disturbances such as fire and invasive plants.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for greater sage-grouse 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 dominance by invasive species, and with variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure, to meet seasonal requirements for food, cover, and nesting for greater sage-grouse. Sagebrush vegetation communities provide contiguous habitat for greater sage-grouse, which is resistant and resilient to disturbances such as fire and invasive plants.</p>	<p>Modifying Desired Conditions</p>
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas².</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is rare in PHMA and GHMA.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas and sagebrush focal areas except for valid existing rights and authorized uses.</p>	<p>Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and authorized uses.</p>		
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In greater sage-grouse habitats, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. Specific desired conditions for greater sage-grouse based on seasonal habitat requirements are in Tables 1a and 1b*.</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p><u>At the landscape scale</u>, in greater sage-grouse habitats, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 10% 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, mesic meadows and riparian areas sustain a rich diversity of perennial grass and forb species relative to site potential, and adjacent sagebrush provides cover and security. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. <u>When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat.</u></p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in greater sage-grouse habitats, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 4% 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, mesic meadows and riparian areas sustain a rich diversity of perennial grass and forb species relative to site potential, and adjacent sagebrush provides cover and security. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. These desired conditions would be based on Ecological Site Descriptions</p>	<p>Modifying Desired Conditions</p> <p>Consistency with literature</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
		and/or state and transitions models where available.	
	<p>GRSG-GEN-MA-004-Management Approach</p> <p>Seasonal use periods for greater sage-grouse on the Humboldt-Toiyabe National Forest are in Appendix D, Table D-1. Seasonal habitat preferences for use during habitat assessment are in Appendix D, Table D-3.</p>	<p>GRSG-GEN-MA-004-Management Approach</p> <p>The values for greater sage-grouse seasonal habitat preferences and seasonal use periods in Appendix D (Tables D-1, D-3, D-4) are initial references based on range-wide habitat selection by greater sage-grouse. These initial references should be refined collaboratively to fit local habitats used by greater sage-grouse, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the seasonal habitat preference values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>Modifying Desired Conditions</p> <p>Supports GRSG-GEN-DC-001-Desired Condition, GRSG-GEN-DC-002-Desired Condition, and GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In PHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit (BSU) (see glossary and Figure D-2 in Appendix D) and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the BSU and proposed</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Required by existing law, regulation, or policy</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co- location.</p>	<p>project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the BSU and proposed project area scale (Appendix D, Disturbance Cap Management Approach). Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.</p>	
	<p>GRSG-GEN-MA-006-Management Approach</p> <p>Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when</p>	<p>GRSG-GEN-MA-006-Management Approach</p> <p>Delete</p>	<p>Duplicative with Disturbance Cap Guidance (Appendix D)</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
	authorizing new projects in priority habitat management areas.		
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-007-Management Approach</p> <p>The Forest Service will conduct a NEPA sufficiency review (FSH 1909.15, Section 18.1) to update the habitat management area maps as new data (e.g., additional greater sage-grouse telemetry data, improved vegetation community data) are incorporated into the model described in “Spatially Explicit Modelling of Greater Sage-Grouse Habitat in Nevada and Northeastern California” (Coates et al. 2014, 2016, as adopted by the State of Nevada in December 2015). If the review indicates no new effects, the maps would be adopted as an administrative change to plan content. If the review indicates potential effects not previously disclosed, the appropriate NEPA and forest planning process will be followed before updating the map.</p>	<p>GRSG-GEN-MA-006-Management Approach</p> <p>The Forest Service will conduct a NEPA sufficiency review (FSH 1909.15, Section 18.1) to update the habitat management area maps as new data (e.g., additional greater sage-grouse telemetry data, improved vegetation community data) are incorporated into the model described in “Spatially Explicit Modelling of Greater Sage-Grouse Habitat in Nevada and Northeastern California” (Coates et al. 2016, as adopted by the State of Nevada). The appropriate NEPA and forest planning process will be followed before updating the map.</p>	<p>Habitat Management Areas Designations</p> <p>Supports GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only allow new authorized land uses, if after avoiding and minimizing impacts, any remaining residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the</p>	<p>GRSG-GEN-ST-008-Standard</p> <p>In priority and general habitat management areas, only allow new authorized land uses, if after avoiding and minimizing impacts, any remaining residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, by</p>	<p>GRSG-GEN-ST-007-Standard</p> <p>In PHMA and GHMA, only allow new authorized land uses, if after avoiding and minimizing impacts, any remaining residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to existing rights, by applying beneficial mitigation actions. Any</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
species, subject to valid existing rights, 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 Mitigation Framework (Appendix B).	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 Mitigation Framework (Appendix D).	compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix D).	
Nothing in 2015 Plan	GRSG-GEN-MA-009-Management Approach The State of Nevada’s Habitat Quantification Tool, or other standardized method, will be used to quantify the residual impacts from project activities and any pursuant compensatory mitigation projects.	GRSG-GEN-MA-008-Management Approach Use the State of Nevada’s Habitat Quantification Tool, or other standardized method, to quantify the residual impacts from anthropogenic project activities and any pursuant compensatory mitigation projects.	Adjustment of Compensatory Mitigation Frameworks Supports GRSG-GEN-ST-007-Standard
GRSG-GEN-ST-006-Standard Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (March 1 to May 15) from 6 pm to 9 am. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.	GRSG-GEN-ST-010-Standard Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an active or pending lek during lekking (Table D-1, generally March 1 to May 15) from 6 pm to 9 am. Do not include noise resulting from human activities that have been authorized and initiated within the 10 years since the issuance of the 2015 ROD (2005) in the ambient baseline measurement.	GRSG-GEN-ST-009-Standard Do not authorize new surface disturbing and disruptive activities that create detrimental noise levels at the perimeter of an active or pending lek during lekking (Table D-1, generally March 1 to May 15) from 6 pm to 9 am. Detrimental noise is considered to be 10 dBa above ambient baseline noise. Do not include noise resulting from human activities that have been authorized and initiated within the 10 years prior September 16, 2015 in the ambient baseline measurement.	Clarification
Nothing in 2015 Plan		GRSG-GEN-MA-010-Management Approach	Supports GRSG-GEN-ST-009-Standard

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
		<p>Consider new science related to the effects of noise and to overall noise thresholds, above which negative effects may render habitat unsuitable. Follow appropriate environmental analysis and planning process to determine the need for change in plan direction and when determining if an activity would create detrimental noise levels.</p> <p>Consider new science and state wildlife agency protocols in the determination of methods used to measure and establish ambient baseline noise, including using an ambient baseline value as provided by State wildlife agency if it is impractical to collect pre-project measurements.</p>	
<p>GRSG-GEN-GL-007-Guideline</p> <p>During breeding and nesting (March 1 to June 30), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-011-Guideline</p> <p>During breeding and nesting seasonal use period (Table D-1, generally March 1 to June 30), surface disturbing and disruptive activities should be avoided to minimize impacts to breeding and nesting birds.</p>	<p>GRSG-GEN-GL-011-Guideline</p> <p>During breeding and nesting seasonal use period (Table D-1, generally March 1 to June 30), surface disturbing and disruptive activities should be avoided within 4 miles of an active or pending lek, as determined by local conditions (e.g. vegetation or topography), to minimize impacts to breeding and nesting birds.</p>	<p>Clarification</p>
<p>GRSG-GEN-GL-008-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, conduct surveys during the breeding season during pre-planning operations. Use protocols such as those established by State Fish and Wildlife</p>	<p>GRSG-GEN-MA-012-Management Approach</p> <p>In priority and general habitat management areas, conduct surveys during the breeding season (Table D-1) during pre-planning operations. Use protocols such as those established by</p>	<p>GRSG-GEN-MA-012-Management Approach</p> <p>Delete</p>	<p>Required by existing policy FSM 2625</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
agencies. The surveys should encompass all suitable greater sage-grouse habitats within 4 miles of the proposed activities.	State Fish and Wildlife agencies. The surveys should encompass all suitable greater sage-grouse habitats within 4 miles of the proposed activities.		
<p>GRSG-GEN-GL-009-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Tables 1a and 1b.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>Delete</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>Delete</p>	<p>Incorporated into GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-GL-010-Guideline</p> <p>Development of tall structures within 3.0 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.</p>	<p>GRSG-GEN-GL-013-Guideline</p> <p>Development of tall structures within 3.0 miles from active or pending 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.</p>	<p>GRSG-GEN-GL-012-Guideline</p> <p>Construction of tall structures within 3 miles of active or pending 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.</p>	<p>Clarification</p>
<p>Adaptive Management</p>			
<p>GRSG-AM-ST-011-Standard</p> <p>If a hard trigger is identified based on either population monitoring or habitat monitoring, immediate action is necessary to stop a severe deviation from GRSG conservation objectives. The hard trigger responses are</p>	<p>GRSG-AM-MA-014-Management Approach</p> <p>Hard triggers (signals) represent a threshold that indicates that immediate action needs be considered to stop or reverse a severe deviation from GRSG conservation goals and objectives. The</p>	<p>GRSG-AM-ST-013-Standard</p> <p>If a hard or soft trigger is identified based on either population monitoring or habitat monitoring, identify and implement appropriate management responses for the specific casual factor in</p>	<p>Adaptive Management Review Process</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>identified in Tables 1 and 2 of the Adaptive Management (Appendix C) for both priority and general management areas.</p>	<p>process for evaluating and responding to hard triggers is documented in Appendix D.</p>	<p>the decline of populations and/or habitats.</p>	
<p>GRSG-AM-ST-012-Standard</p> <p>If a soft trigger is identified based on either population monitoring or habitat monitoring, 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, with consideration of local knowledge and conditions. (Appendix C)</p>	<p>GRSG-AM-MA-015-Management Approach</p> <p>Soft triggers represent an intermediate threshold that indicates that management changes should be considered at the project or implementation level to address GRSG population and/or habitat declines. If a soft trigger is reached, consider additional implementation level management responses to address the known or probable causes of the decline in GRSG habitat or populations with consideration of local knowledge and conditions, as documented in Appendix D.</p>	<p>GRSG-AM-MA-014-Management Approach</p> <p>Apply the Adaptive Management Plan for Nevada (Appendix D) to determine causal factors related to population and habitat hard and soft triggers and to identify appropriate management responses.</p>	<p>Adaptive Management Review Process</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-AM-ST-013-Standard</p>
<p>Lands and Realty</p>			
<p>Special Use Authorizations</p>			
<p>GRSG-LR-SUA-O-013-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>Delete</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>Delete</p>	<p>Included in GRSG-LR-SUA-ST-017-Standard</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, restrict issuance of new lands special use authorizations for infrastructure, such as high- voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to greater sage-grouse or their habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas <u>do not authorize</u> new or amended lands special uses for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, <u>outside of existing designated corridors and rights-of-way. Exceptions may be made if any of the following apply:</u></p> <ul style="list-style-type: none"> i. <u>The location of the proposed authorization is determined to be unsuitable habitat or non-habitat; lacks the ecological potential to become marginal or suitable habitat; and would not result in direct, indirect, or cumulative impacts on greater sage-grouse and its habitat.</u> ii. <u>Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid (e.g., relocate, bury), minimize, mitigate) to achieve a net conservation gain and demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline.</u> iii. <u>The proposed action would be authorized to address public health and safety concerns, specifically as</u> 	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In PHMA and GHMA, do not authorize new or amended lands special uses for infrastructure, such as transmission lines, pipelines, distribution lines, and communication tower sites, outside of existing designated corridors and rights-of-way of similar types. Exceptions may be made if any of the following apply:</p> <ul style="list-style-type: none"> i. The location of the proposed authorization is determined to be unsuitable habitat or non-habitat; lacks the ecological potential to become suitable habitat; and would not result in direct, indirect, or cumulative impacts on greater sage-grouse or its habitat. ii. Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid (e.g., co-locate, relocate, bury), minimize, mitigate) to achieve a net conservation gain and demonstrate that the direct, indirect, and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline. iii. The proposed action is needed to address public health and safety concerns, specifically as they relate 	<p>Clarification of Exception Process</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
	<p>they relate to local, state, and national priorities.</p> <p>iv. Renewals or re-authorizations of existing infrastructure in previously disturbed sites or expansions of existing infrastructure that have <i>de minimis</i> impacts or do not result in direct, indirect, or cumulative impacts on Greater Sage-Grouse and its habitat.</p> <p>v. The proposed action would be determined a routine administrative function conducted by State or local governments, including prior existing uses, authorized uses, valid existing rights and existing infrastructure (i.e., rights-of-way for roads) that serve such a public purpose.</p> <p>Refer to standards GRSG-GEN-ST-004 and GRSG-GEN-ST-005 for disturbance caps and compensatory mitigation for residual impacts.</p>	<p>to local, state, and national priorities.</p> <p>iv. Renewals or re-authorizations of existing infrastructure in previously disturbed sites or expansions of existing infrastructure that do not result in direct, indirect, or cumulative impacts on greater sage-grouse or its habitat.</p> <p>v. The proposed action would be determined a routine administrative function conducted by State or local governments, including existing authorized uses, existing rights and existing infrastructure that serve a public purpose.</p> <p>Refer to standards GRSG-GEN-ST-005 and GRSG-GEN-ST-007 for disturbance caps and compensatory mitigation for residual impacts.</p>	

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In general habitat management areas, new lands special use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect greater sage-grouse and their habitats. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>Delete</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>Delete</p>	<p>Incorporated into GRSG-LR-SUA-ST-015-Standard with exception process</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat and general habitat management areas, 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 greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>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 greater sage-grouse or their habitats. Exceptions would comply with GRSG-LR-SUA-ST-015-Standard.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, 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</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure and guy wire marking, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites). Refer to standards GRSG-GEN-ST-004 and GRSG-GEN-ST-005 for disturbance caps and compensatory mitigation for residual impacts.	infrastructure (e.g., transmission lines, pipelines, roads, distribution lines, and communication tower sites). Refer to standards GRSG-GEN-ST-005 and GRSG-GEN-ST-007 for disturbance caps and compensatory mitigation for residual impacts.	
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors or right-of-way unless an alternate route would benefit greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In priority and general habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or right-of-way unless an alternate route would benefit greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-GL-018-Guideline</p> <p>In PHMA and GHMA, locate upgrades to existing transmission lines within the existing designated corridors or right-of-way unless an alternate route would benefit greater sage-grouse or their habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changed to Guideline to demonstrate flexibility needed to work with GRSG-LR-SUA-ST-015-Standard</p>
<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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).</p>	<p>GRSG-LR-SUA-ST-020-Standard</p> <p>In priority and general habitat management areas, 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).</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>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).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, outside of existing designated corridors and</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Incorporated into GRSG-LR-SUA-ST-015-</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
rights-of-way, 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 greater sage-grouse and its habitat are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.			Standard with exception process
<p>GRSG-LR-SUA-GL-021-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in GRSG habitat.</p>	<p>GRSG-LR-SUA-MA-021-Management Approach</p> <p>The best available science and monitoring should be used to inform infrastructure siting in GRSG habitat.</p>	<p>GRSG-LR-SUA-MA-021-Management Approach</p> <p>Delete</p>	<p>Clarification of Plan Content Definition</p> <p>Required by existing law, regulation, or policy</p>
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-022-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-022-Standard</p> <p>In priority and general habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In PHMA and GHMA, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to greater sage-grouse or it will not have direct, indirect, or cumulative impacts on greater sage-grouse or its habitat.</p>	Elimination of Sagebrush Focal Areas
<p>GRSG-LR-LOA-GL-023-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal</p>	<p>GRSG-LR-LOA-MA-023-Management Approach</p>	<p>GRSG-LR-LOA-GL-021-Guideline</p> <p>In PHMA and GHMA, consider landownership adjustments to achieve a</p>	Elimination of Sagebrush Focal Areas

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>areas with minority Federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.</p>	<p>In priority and general habitat management areas with minority Federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.</p>	<p>landownership pattern that consolidates and reduces fragmentation to sage-grouse habitat.</p>	<p>Complements existing plan components in Humboldt Forest Plan (page IV-61, Lands) and Toiyabe Plan (page IV-54, Lands)</p>
<p>Land Withdrawal</p>			
<p>GRSG-LR-LW-GL-024-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to greater sage-grouse or their habitats.</p>	<p>GRSG-LR-LW-GL-024-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-024-Guideline</p> <p>Delete</p>	<p>Cancellation of Mineral Withdrawal</p>
<p>Wind and Solar</p>			
<p>GRSG-WS-ST-025-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>GRSG-WS-ST-024-Standard</p> <p>In priority and general habitat management areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In PHMA and GHMA, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-WS-ST-026-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize new wind energy utility-scale and/or commercial development.</p>	<p>GRSG-WS-ST-025-Standard</p> <p>In priority habitat management areas, do not authorize new wind energy utility-scale and/or commercial development.</p>	<p>GRSG-WS-ST-023-Standard</p> <p>In PHMA, do not authorize new wind energy utility-scale and/or commercial development.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-WS-GL-027- Guideline</p> <p>In general habitat management areas, new 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 greater sage-grouse and their habitats.</p>	<p>GRSG-WS-GL-026- Guideline</p> <p>In general habitat management areas, new 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 greater sage-grouse and their habitats. Refer to standards GRSG-GEN-ST-004 and GRSG-GEN-ST-005 for disturbance caps and compensatory mitigation for residual impacts.</p>	<p>GRSG-WS-GL-024- Guideline</p> <p>In GHMA, new 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 greater sage-grouse and their habitats. Refer to GRSG-GEN-ST-005, GRSG-GEN-ST-007, GRSG-GEN-GL-011, GRSG-GEN-GL-012, and GRSG-LR-SUA-ST-015-Standard for disturbance caps, compensatory mitigation for residual impacts, and exceptions process.</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p>
Greater Sage-grouse Habitat			
<p>GRSG-GRSG-DC-028-Desired Condition</p> <p>Sagebrush vegetation communities provide contiguous habitat for greater sage grouse, which is resistant and resilient to disturbances such as fire and invasives.</p>	<p>GRSG-GRSG-DC-028-Desired Condition</p> <p>Delete</p>	<p>GRSG-GRSG-DC-028-Desired Condition</p> <p>Delete</p>	<p>Incorporated into GRSG-GEN-DC-001-Desired Condition</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
Nothing in 2015 Plan	GRSG-GRSGH-DC-027-Desired Condition Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	GRSG-GRSGH-DC-025-Desired Condition Invasive annual grasses are either not present or in low abundance in sage-grouse habitat.	Treatment of Invasive Plants
GRSG-GRSGH-O-029-Objective Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species within the number of acres shown in Table 2 .	GRSG-GRSGH-O-028-Objective Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species within the number of acres shown in Appendix D, Table D-4 . When authorizing vegetation management treatments in priority and general sage grouse habitat management areas, priority should be given to treatments in Phase I and early Phase II pinyon and/or juniper stands in areas with a sagebrush component. Treatments in pinyon and/or juniper stands in late Phase II or Phase III condition should only be authorized to create movement corridors, connect habitats, or reduce the potential for catastrophic fire.	GRSG-GRSGH-O-026-Objective Every 10 years, improve greater sage-grouse habitat by removing conifers and treating areas invaded by and/or dominated by invasive annual grasses within the number of acres shown in Appendix D, Table D-2.	Clarification
GRSG-GRSGH-ST-030-Standard Design habitat restoration projects to move towards desired conditions (Table 1a or 1b).	GRSG-GRSGH-ST-030-Standard Delete	GRSG-GRSGH-ST-030-Standard Delete	Required by 2012 Planning Rule
GRSG-GRSGH-GL-031-Guideline	GRSG-GRSGH-GL-029-Guideline	GRSG-GRSGH-GL-027-Guideline	Clarification

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodland (i.e., old growth relative to the site or more than 100 years old).	When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodland.	When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodland. The determination of a persistent woodland would be informed by Ecological Site Descriptions where available.	
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In PHMA and GHMA, actions and authorizations should include design features to limit the spread and effect of non-native invasive plant species.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas and sagebrush focal areas, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Table 1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1a and Table 1b).</p>	<p>GRSG-GRSGH-MA-031-Management Approach</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (GRSG-GEN-DC-001-Desired Condition).</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse habitat attributes to move away from desired conditions (GRSG-GEN-DC-001-Desired Condition and GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification of Plan Content Definition</p>
<p>GRSG-GRSGH-GL-034-Guideline</p>	<p>GRSG-GRSGH-GL-032-Guideline</p>	<p>GRSG-GRSGH-GL-030-Guideline</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>In priority and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to maintain, restore, or enhance desired habitat conditions (Table 1a or 1b).</p>	<p>In priority and general habitat management areas, native plant species should be used, when possible, to maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-001-Desired Condition).</p>	<p>In PHMA and GHMA, native plant species should be used, when practicable, to maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-001-Desired Condition and GRSG-GEN-DC-003-Desired Condition).</p>	
<p>GRSG-GRSGH-GL-035-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired habitat conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In PHMA, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-GRSGH-GL-036-Guideline</p> <p>Vegetation treatment activities in lentic riparian areas (i.e., seeps, springs, and wet meadows) in priority and general habitat management areas and sagebrush focal areas, should only be authorized if they maintain or improve conditions to meet greater sage-grouse desired conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-GL-034-Guideline</p> <p>Vegetation treatment activities in lentic riparian areas (i.e., seeps, springs, and wet meadows) in priority and general habitat management areas, should only be authorized if they maintain or improve conditions to meet greater sage-grouse desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>GRSG-GRSGH-GL-032-Guideline</p> <p>Vegetation treatment activities in lentic riparian areas (i.e., seeps, springs, and wet meadows) in PHMA and GHMA, should only be authorized if they maintain or improve conditions to meet greater sage-grouse desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-GRSGH-GL-037-Guideline</p> <p>When authorizing vegetation management treatments in priority and general sage grouse habitat management areas and sagebrush focal areas, priority should be given to treatments in Phase I and early Phase II pinyon and/or juniper stands in areas</p>	<p>GRSG-GRSGH-GL-037-Guideline</p> <p>Delete</p>	<p>GRSG-GRSGH-GL-033-Guideline</p> <p>When authorizing vegetation management treatments in PHMA and GHMA, priority should be given to treatments in Phase I and Phase II pinyon and/or juniper stands in areas with a</p>	<p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>with a sagebrush component. Pinyon-Juniper treatments in Phase I and Phase II condition should be designed to maintain or enhance sagebrush in the treatment areas. Treatments in late Phase II or Phase III condition should only be authorized to create movement corridors, connect habitats, or reduce the potential for catastrophic fire.</p>		<p>sagebrush, native shrub, and/or perennial understory component.</p> <p>Treatments in pinyon and/or juniper stands in Phase III condition should only be authorized to create movement corridors, connect habitats, or reduce the potential for catastrophic fire, see Appendix D, Table D-2.</p>	
		<p>GRSG-GRSGH-MA-034-Management Approach</p> <p>When treating areas invaded by and/or dominated by annual invasive grasses in PHMA and GHMA, priority should be given to treating satellite populations, and where state and transition models, ecological site descriptions, or disturbance response groups indicate the likelihood of successful and effective treatment, see Appendix D, Table D-2.</p>	<p>Treatment of Invasive Species</p>
<p>GRSG-GRSGH-GL-038-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, treatment methodologies should be based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance. Use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals and treat areas in</p>	<p>GRSG-GRSGH-MA-035-Management Approach</p> <p>In priority and general habitat management areas, treatment methodologies should be based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance.</p>	<p>GRSG-GRSGH-ST-035-Standard</p> <p>In PHMA and GHMA, do not authorize vegetation treatment methods, including for post-wildfire restoration, unless based on project objectives and the treatment areas' resistance to annual invasive grasses, the resilience of native vegetation to respond after disturbance, ecological site descriptions, disturbance response</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
early- to mid-phase pinyon-juniper expansion.		groups, and/or state and transition models.	
	<p>GRSG-GRSGH-GL-036-Guideline</p> <p>Use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals and treat areas in early- to mid-phase pinyon-juniper expansion.</p>	<p>GRSG-GRSGH-GL-036-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-GRSGH-ST-035-Standard</p>
Nothing in 2015 Plan	<p>GRSG-GRSGH-MA-037-Management Approach</p> <p>Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.</p>	<p>GRSG-GRSGH-MA-036-Management Approach</p> <p>Within the broader context of Early Detection and Rapid Response management strategies, prioritize treatments for invasive annual and noxious plant populations that have the potential to impact sage-grouse habitat in PHMA.</p>	<p>Treatment of Invasive Species</p>
Nothing in 2015 Plan	<p>GRSG-GRSGH-O-038-Objective</p> <p>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts for each National Forest and Grassland.</p>	<p>GRSG-GRSGH-O-038-Objective</p> <p>Delete</p>	<p>Treatment of Invasive Species</p>
Nothing in 2015 Plan	<p>GRSG-GRSGH-MA-039-Management Approach</p> <p>In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.</p>	<p>GRSG-GRSGH-MA-039-Management Approach</p> <p>Delete</p>	<p>Treatment of Invasive Species</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
Livestock Grazing			
<p>GRSG-LG-DC-039-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Tables 1a and 1b).</p>	<p>GRSG-LG-DC-039-Desired Condition</p> <p>Delete</p>	<p>GRSG-LG-DC-039-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-DC-040-Desired Condition</p> <p>Grazing management contributes to maintaining sustainable riparian communities needed for proper functioning condition in riparian areas and mesic meadows in priority, general, and other habitat management areas.</p>	<p>GRSG-LG-DC-037-Desired Condition</p> <p>Managed livestock grazing contributes to maintaining sustainable riparian communities needed for proper functioning condition in riparian areas and mesic meadows in PHMA, GHMA, and OHMA.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>GRSG-LG-ST-040-Standard</p> <p>In priority and general management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat and consistent with State approved water rights.</p>	<p>GRSG-LG-ST-041-Standard</p> <p>In priority and general habitat management areas, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-038-Standard</p> <p>In PHMA and GHMA, do not approve construction of water developments that would cause net adverse effects to greater sage-grouse habitat.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>GRSG-LG-ST-041-Standard</p> <p>When vertical embankments in water troughs or open water facilities pose a drowning risk to birds, wildlife escape</p>	<p>GRSG-LG-ST-042-Standard</p> <p>No change</p>	<p>GRSG-LG-ST-039-Standard</p> <p>Wildlife escape ramps shall be installed and maintained in water troughs or open water facilities with vertical embankments that pose a drowning risk to wildlife.</p>	<p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
ramps should be installed and maintained.			
<p>GRSG-LG-GL-042-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1a or 1b consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p><u>GRSG-LG-GL-043-Guideline</u></p> <p><u>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</u></p>	<p>GRSG-LG-GL-040-Guideline</p> <p>In PHMA, GHMA, and OHMA, if livestock grazing is found to be a limiting factor in achievement of desired habitat conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
	<p><u>GRSG-LG-GL-044-Guideline</u></p> <p><u>In priority, general, and other habitat management areas, grazing utilization in riparian areas and mesic meadows should be managed to promote cover, diversity, and health of important/key plant species to support sage-grouse during brood-rearing season; and, during the growing season, manage grazing in riparian areas and mesic meadows to allow recovery of riparian vegetation (e.g. using riparian</u></p>	<p>GRSG-LG-GL-041-Guideline</p> <p>In PHMA, GHMA, and OHMA, manage grazing utilization in riparian areas and mesic meadows to promote cover, diversity, and health of important/key plant species to support sage-grouse during brood-rearing season. During the growing season, manage grazing in riparian areas and mesic meadows to allow recovery of riparian vegetation (e.g. using riparian pastures, water</p>	<p>Changing Livestock Grazing Guidelines</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
	pastures, water developments, stockmanship, rotational grazing).	developments, stockmanship, rotational grazing).	
Nothing in 2015 Plan	GRSG-LG-MA-045-Management Approach Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than desired seasonal habitat condition, determine factors limiting achievement of the desired seasonal habitat conditions.	GRSG-LG-MA-045-Management Approach Delete	Changing Livestock Grazing Guidelines Duplicative with required Forest Plan Monitoring
GRSG-LG-GL-043-Guideline In priority and general habitat management areas and sagebrush focal areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including, but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).	GRSG-LG-GL-043-Guideline Delete	GRSG-LG-GL-043-Guideline Delete	Required by existing law, regulation, or policy
GRSG-LG-GL-044-Guideline Bedding sheep and placing camps within 2.0 miles from the perimeter of	GRSG-LG-GL-046-Guideline Bedding sheep and placing camps within 2.0 miles from an active or pending lek during lekking (Table D-1, generally March	GRSG-LG-GL-042-Guideline Bedding sheep and placing camps within 2.0 miles from an active or pending lek during lekking (Table D-1, generally March	Clarification

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
a lek during lekking (March 1 to May 15) should be restricted.	1 to May 15) should be restricted to prevent disturbance to breeding and nesting GRSG.	1 to May 15) should be restricted to prevent disturbance to breeding and nesting greater sage-grouse.	
<p>GRSG-LG-GL-045-Guideline</p> <p>During the breeding and nesting season (March 1 to June 30), 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.</p>	<p>GRSG-LG-GL-047-Guideline</p> <p>During the breeding and nesting season (Table D-1, generally March 1 to June 30), trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks are not allowed.</p>	<p>GRSG-LG-GL-043-Guideline</p> <p>During the breeding and nesting season (Table D-1, generally March 1 to June 30), trailing livestock through breeding and nesting habitat should be avoided to prevent disturbance to breeding and nesting greater sage-grouse. Specific routes should be identified, existing trails should be used, and avoid stopovers on active or pending leks.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-046-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-048-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of active or pending leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).</p>	<p>GRSG-LG-GL-044-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of active or pending leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).</p>	<p>Clarification</p>
<p>GRSG-LG-GL-047-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-049-Guideline</p> <p>To prevent predation from perching raptors, new permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of active or pending leks.</p>	<p>GRSG-LG-GL-045-Guideline</p> <p>To prevent predation from perching raptors, new livestock facilities that pose a perching risk (e.g., windmills, water tanks, corrals, etc.) should not be authorized within 1.2 miles from the perimeter of active or pending leks, considering local conditions.</p>	<p>Clarification</p>
<p>Fire and Fuels Management</p>			

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-FM-DC-048-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for fire fighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-<u>MA-050-Management Approach</u></p> <p>In priority and general habitat management areas, protect sagebrush in sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for fire fighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-DC-046-Desired Condition</p> <p>In PHMA and GHMA, sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets after firefighter and public health and safety.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-ST-049-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1a or 1b or for pile burning.</p>	<p>GRSG-FM-ST-051-Standard</p> <p>In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions (GRSG-GEN-DC-003-Desired Condition) or for pile burning.</p>	<p>GRSG-FM-ST-047-Standard</p> <p>In PHMA and GHMA, do not authorize treatment methods for fuel reduction (e.g., mastication, broadcast burning, pile burning) unless based on project objectives and the treatment areas' resistance to annual invasive grasses, the resilience of native vegetation to respond after disturbance, ecological site descriptions, and/or state and transition models.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-FM-ST-050-Standard</p> <p>In priority and general habitat management areas and sagebrush focal</p>	<p>GRSG-FM-<u>MA-052-Management Approach</u></p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Required by existing law, regulation, or</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Tables 1a and 1b, the associated NEPA analysis must identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>In priority and general habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions (GRSG-GEN-DC-003-Desired Condition), the associated NEPA analysis must identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.</p>		<p>policy</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>In order to maintain sagebrush 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 or supports the attainment of desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In order to maintain sagebrush 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 or supports the attainment of desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Clarification</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In PHMA and GHMA, when reseeding in fuel breaks, fire resistant native plant species should be used if available. Persistent, non-native, non-invasive fire resistant plant materials should only be used when timely reestablishment with the use of native plant materials is not likely to occur. The use of fire resistant</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
consider using fire resistance non-native species, if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.	consider using fire resistant non-native species, if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term and will prevent fire spread into GRSG habitat.	native plants species should be a high priority but not at the expense of creating effective fuel breaks	
GRSG-FM-GL-053-Guideline In priority and general habitat management areas and sagebrush focal areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.	GRSG-FM-GL-053-Guideline Delete	GRSG-FM-GL-053-Guideline Delete	Required by 2012 Planning Rule
GRSG-FM-GL-054-Guideline Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to greater sage grouse should be considered and removal of sagebrush should be limited.	GRSG-FM-GL-055-Guideline Locate wildfire suppression facilities (i.e., base camps , spike camps, drop points , staging areas , helibases, etc.) in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.	GRSG-FM-GL-050-Guideline Wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) should be located in areas where adverse effects to greater sage-grouse and its habitat can be minimized. These include native grasslands, near roads/trails, or in other disturbed areas where there is minimal sagebrush cover and/or or minimal invasive plant species.	Elimination of Sagebrush Focal Areas Clarification
GRSG-FM-GL-055-Guideline In priority and general habitat management areas and sagebrush focal areas , cross-country vehicle travel	GRSG-FM-GL-056-Guideline In priority and general habitat management areas cross-country vehicle travel during fire operations should be	GRSG-FM-GL-051-Guideline In PHMA and GHMA, cross-country vehicle travel during fire operations should be restricted. When needed to	Elimination of Sagebrush Focal Areas

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to sage grouse should be considered and removal of sagebrush should be limited.</p>	<p>restricted. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to sage grouse should be considered and removal of sagebrush should be limited to the extent practicable.</p>	<p>best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to sage grouse should be considered and removal of sagebrush should be limited to the extent practicable.</p>	
<p>GRSG-FM-GL-056-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>In priority and general habitat management areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-GL-052-Guideline</p> <p>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 determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification of Plan Content Definition</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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).</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions should result in movement toward desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>In PHMA and GHMA, GRSG habitat desired conditions will be incorporated into prescribed fire prescriptions. Prescribed fire prescriptions should not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity) that would prevent movement towards or maintenance of desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-058-Guideline</p>	<p>GRSG-FM-MA-059-Management Approach</p>	<p>GRSG-FM-GL-054-Guideline</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>In priority and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>In PHMA and GHMA, planned fuel breaks should incorporate roads and natural fuel breaks to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Clarification of Plan Content Definition</p>
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-060-Standard</p> <p>In priority and general habitat management areas all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-055-Standard</p> <p>In PHMA and GHMA, where practical and available, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols before entering and exiting the area after initial attack activities to minimize the introduction of invasive plant species and noxious weeds.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Treatment of Invasive Plants</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System), local operating plans and resource advisor plans to be used during fire situation to inform management decision, aid in</p>	<p>GRSG-FM-MA-061-Management Approach</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System), local operating plans and resource advisor plans to be used during fire situation to inform management decision, aid in</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Include unit-specific greater sage-grouse fire management related information in the wildland fire decision support systems (currently, the Wildland Fire Decision Support System); use local operating plans and resource advisor plans during fire situations to inform management decision, aid in development of strategies</p>	<p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
development of strategies and tactics and for the prioritization of resources.	development of strategies and tactics and for the prioritization of resources.	and tactics and for the prioritization of resources.	
<p>GRSG-FM-GL-061-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch and fire support personnel.</p>	<p>GRSG-FM-MA-062-Management Approach</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch and fire support personnel.</p>	<p>GRSG-FM-MA-062-Management Approach</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Duplicative GRSG-FM-MA-056-Management Approach</p>
<p>GRSG-FM-GL-062-Guideline</p> <p>In or near priority and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-063-Management Approach</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>In or near PHMA and GHMA, a resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-046-Desired Condition</p>
<p>GRSG-FM-GL-063-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-064-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-058-Guideline</p> <p>On critical fire weather days, when allocation of suppression/prevention resource positioning is being decided, protection of greater sage-grouse habitat should receive high consideration, along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-046-Desired Condition</p>
<p>GRSG-FM-GL-064-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and, prioritizing protection of priority and general habitat</p>	<p>GRSG-FM-MA-065-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and, prioritizing protection of priority and</p>	<p>GRSG-FM-MA-059-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and, prioritizing protection of PHMA and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which sage grouse habitat is a consideration along with other high values.</p>	<p>general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which sage grouse habitat is a consideration along with other high values.</p>	<p>GHMA, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which sage grouse habitat is a consideration along with other high values.</p>	<p>DC-046-Desired Condition</p>
<p>GRSG-FM-GL-065-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, or their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, or their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-066-Management Approach</p> <p>In priority and general habitat management areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, or their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, or their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-060-Guideline</p> <p>In PHMA and GHMA, fire retardant and mechanized equipment should be used only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, or their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, or their designee, or fireline leadership.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-046-Desired Condition</p>
<p>GRSG-FM-GL-066-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to minimize sagebrush habitat</p>	<p>GRSG-FM-GL-067-Guideline</p> <p><u>In priority and general habitat management areas, to minimize sagebrush habitat loss, the full range of</u></p>	<p>GRSG-FM-GL-061-Guideline</p> <p>In PHMA and GHMA, the full range of suppression techniques should be used to protect unburned islands, doglegs, and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	<p>other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much greater sage-grouse habitat as possible.</p>	<p>Supports GRSG-FM-DC-046-Desired Condition</p>
Wild Horse and Burro			
<p>GRSG-HB-DC-067-Desired Condition</p> <p>In priority and general habitat management areas, wild horse and burro populations are within established appropriate management levels.</p>	<p>GRSG-HB-DC-068-Desired Condition</p> <p>No change</p>	<p>GRSG-HB-DC-062-Desired Condition</p> <p>In PHMA and GHMA, wild horse and burro populations are within established appropriate management levels.</p>	
<p>GRSG-HB-ST-068-Standard</p> <p>In priority and general habitat management areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.</p>	<p>GRSG-HB-MA-069-Management Approach</p> <p>In priority and general habitat management areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.</p>	<p>GRSG-HB-ST-063-Standard</p> <p>In PHMA, GHMA, and OHMA, appropriate management levels in wild horse and burro territory management plans shall be based on the structure, condition, and composition of vegetation needed to achieve desired habitat conditions for sage-grouse.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-HB-ST-069-Standard</p> <p>In priority and general management areas, remove wild horses and burros</p>	<p>GRSG-HB-MA-070-Management Approach</p>	<p>GRSG-HB-ST-064-Standard</p> <p>In PHMA and GHMA, remove wild horses and burros outside of a wild horse and</p>	<p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
outside of a wild horse and burro territory.	In priority and general management areas, remove wild horses and burros outside of a wild horse and burro territory consistent with FSM 2260.31.	burro territory consistent with FSM 2260.31.	
<p>GRSG-HB-GL-070-Guideline</p> <p>In priority and general habitat, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.</p>	<p>GRSG-HB-MA-071-Management Approach</p> <p>In priority and general habitat management areas, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.</p>	<p>GRSG-HB-MA-065-Management Approach</p> <p>In PHMA and GHMA, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-HB-ST-063-Standard</p>
<p>GRSG-HB-GL-071-Guideline</p> <p>In priority and general habitat, wild horse and burro population levels should be managed at the lower limit of established appropriate management level ranges, as appropriate.</p>	<p>GRSG-HB-GL-071-Guideline</p> <p>Delete</p>	<p>GRSG-HB-GL-071-Guideline</p> <p>Delete</p>	<p>Duplicative with existing Forest Service policy (FSM 2260)</p>
<p>GRSG-HB-GL-072-Guideline</p> <p>In priority and general habitat, consider exclusion of wild horse or burros immediately following emergency situation (e.g., fire, floods, and drought).</p>	<p>GRSG-HB-MA-072-Management Approach</p> <p>In priority and general habitat management area, consider exclusion of wild horse or burros immediately following emergency situation (e.g., fire, floods).</p>	<p>GRSG-HB-MA-066-Management Approach</p> <p>In PHMA and GHMA, consider exclusion of wild horse or burros immediately following emergency situation (e.g., fire, floods).</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-HB-ST-063-Standard</p>
Recreation			

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-R-DC-073-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, recreation activities are balanced with the ability of the land to support them, while meeting greater sage-grouse seasonal habitat desired conditions (Table 1a and 1b) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-073-Desired Condition</p> <p>Delete</p>	<p>GRSG-R-DC-073-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-R-ST-074-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 greater sage-grouse or their habitats.</p>	<p>GRSG-R-GL-073-Guideline</p> <p>In priority and general habitat management areas, 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 greater sage-grouse or their habitats.</p>	<p>GRSG-R-ST-067-Standard</p> <p>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 greater sage-grouse or their habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-075-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse 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</p>	<p>GRSG-R-MA-074-Management Approach</p> <p>In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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</p>	<p>GRSG-R-GL-068-Guideline</p> <p>In PHMA and GHMA, when authorizing new recreation special-use authorizations, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
should be modified to protect and/or restore greater sage-grouse habitat.	protect and/or restore greater sage-grouse habitat.		
<p>GRSG-R-GL-076-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 greater sage-grouse or their habitats or the development is required for visitor safety.</p>	<p>GRSG-R-GL-075-Guideline</p> <p>In priority and general habitat management areas, 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 greater sage-grouse or their habitats or the development is required for visitor safety.</p>	<p>GRSG-R-GL-069-Guideline</p> <p>In PHMA and GHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trailheads, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to greater sage-grouse or their habitats or the development is required for visitor safety.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-R-GL-077-Guideline</p> <p>During breeding and nesting (March 1 to June 30), outfitter-guide activities within 0.25 mile from the perimeter of active leks should not be authorized.</p>	<p>GRSG-R-ST-076-Standard</p> <p>During breeding and nesting (Table D-1, generally March 1 to June 30), outfitter-guide activities within 0.25 mile from active or pending leks shall not be authorized.</p>	<p>GRSG-R-ST-070-Standard</p> <p>During breeding and nesting (Table D-1, generally March 1 to June 30), outfitter-guide activities within 0.25 mile from active or pending leks shall not be authorized.</p>	<p>Clarification</p>
Roads/Transportation			
<p>GRSG-RT-DC-078-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, within the forest transportation system and on roads and trails authorized under a special use</p>	<p>GRSG-RT-DC-077-Desired Condition</p> <p>In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse</p>	<p>GRSG-RT-DC-071-Desired Condition</p> <p>In PHMA and GHMA, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
authorization, greater sage-grouse experience minimal disturbance during breeding and nesting (March 1 to June 30) and wintering (November 1 to February 28) periods.	experience minimal disturbance and mortality.	experience minimal disturbance and mortality.	
GRSG-RT-ST-079-Standard In priority and general habitat management areas and sagebrush focal areas , do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, 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 mitigate impacts.	GRSG-RT-ST-078-Standard In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, 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 mitigate impacts.	GRSG-RT-GL-072-Guideline 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 to existing and authorized uses, public safety, or to access 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 mitigate impacts to greater sage-grouse and its habitat.	Elimination of Sagebrush Focal Areas
GRSG-RT-ST-080-Standard Do not construct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to May 15) from 6 pm to 9 am.	GRSG-RT-ST-079-Standard Do not construct or allow road and trail maintenance activities within 2 miles from the perimeter of active or pending leks during lekking (Table D-1, generally March 1 to May 15) from 6 pm to 9 am.	GRSG-RT-ST-073-Standard Do not construct or allow road and trail maintenance activities within 2 miles from the perimeter of active or pending leks during lekking (Table D-1, generally March 1 to May 15) from 6 pm to 9 am.	Clarification
GRSG-RT-ST-081-Standard In priority habitat management areas and sagebrush focal areas, do not allow	GRSG-RT-ST-081-Standard Delete	GRSG-RT-ST-081-Standard Delete	Duplicative with Special Use Permit issuance

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
public motor vehicle use on temporary energy development roads.			
<p>GRSG-RT-GL-082-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with greater sage-grouse.</p>	<p>GRSG-RT-GL-082-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-082-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-RT-DC-071-Desired Condition and GRSG-RT-GL-072-Guideline</p>
<p>GRSG-RT-GL-083-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-RT-GL-080-Guideline</p> <p>In priority habitat management areas, road construction within riparian areas and mesic meadows should be <u>avoided to the extent practicable</u>. If not possible to restrict construction within riparian areas and mesic meadows, roads should be constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so <u>to minimize impacts to riparian habitat</u>.</p>	<p>GRSG-RT-GL-080-Guideline</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Duplicative with GRSG-RT-GL-072-Guideline</p>
<p>GRSG-RT-GL-084-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1a or 1b).</p>	<p>GRSG-RT-GL-084-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-084-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-RT-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to impact greater sage-grouse.</p>	<p>GRSG-RT-MA-081-Management Approach</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to impact greater sage-grouse.</p>	<p>GRSG-RT-GL-074-Guideline</p> <p>In PHMA and GHMA, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to impact greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-RT-GL-086-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-RT-MA-082-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-075-Guideline</p> <p>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 annual and noxious plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-RT-GL-087-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during breeding and nesting (March 1 to June 30), consider seasonal</p>	<p>GRSG-RT-GL-083-Guideline</p> <p>In priority and general habitat management areas, during breeding and nesting season (Table D-1, generally March 1 to June 30), seasonally close</p>	<p>GRSG-RT-MA-076-Management Approach</p> <p>In PHMA and GHMA, during breeding and nesting season (Table D-1, generally March 1 to June 30), consider seasonal</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
road closures on motorized travel routes with high traffic volume, speeds, or noise levels.	National Forest System motorized travel routes with high traffic volume, speeds, or noise levels that are demonstrably having a negative impact on GRSG breeding and nesting behavior .	road closures or other methods to protect sage-grouse from disturbance and mortality on motorized travel routes with high traffic volume, speeds, or noise levels.	
<p>GRSG-RT-GL-088-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, from November 1 to February 28, consider limiting over-snow motorized vehicles in wintering areas.</p>	<p>GRSG-RT-MA-084-Management Approach</p> <p>In priority and general habitat management areas, during winter seasonal use periods (Table D-1, generally November 1 to February 28), consider limiting over-snow motorized vehicles in wintering areas.</p>	<p>GRSG-RT-MA-077-Management Approach</p> <p>In PHMA and GHMA, during winter seasonal use periods (Table D-1, generally November 1 to February 28), consider limiting over-snow motorized vehicles in wintering areas.</p>	<p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p>
Minerals			
Fluid- Unleased			
<p>GRSG-M-FMUL-ST-089-Standard</p> <p>In priority habitat management areas, any new oil and gas leases must include a no surface occupancy 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 greater sage-grouse experts from the Fish and Wildlife Service, Forest Service, and State wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or 	<p>GRSG-M-FMUL-ST-085-Standard</p> <p>In priority habitat management areas, any new oil and gas leases or geothermal leases must include a no surface occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if one of the following applies:</p> <ul style="list-style-type: none"> • The location of the proposed authorization is determined to be unsuitable (by a qualified biologist with Greater Sage-Grouse experience); lacks the ecological potential to become marginal or suitable habitat; and would not result 	<p>GRSG-M-FMUL-ST-078-Standard</p> <p>In PHMA, any new oil and gas leases or geothermal leases must include a no surface occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if one of the following applies:</p> <ul style="list-style-type: none"> • The location of the proposed authorization is determined to be unsuitable habitat or non-habitat; lacks the ecological potential to 	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Including Waivers, Exceptions, and Modifications on NSO Stipulations</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>cumulative effects to greater sage-grouse or their habitats; or</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 greater sage-grouse. 	<p>in direct, indirect, or cumulative impacts on greater sage-grouse and its habitat.</p> <ul style="list-style-type: none"> • Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid, minimize, mitigate) to achieve a net conservation gain and demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline. 	<p>become suitable habitat; or would not result in direct, indirect, or cumulative impacts on greater sage-grouse or its habitat.</p> <ul style="list-style-type: none"> • Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid (e.g. co-locate, relocate, bury), minimize, mitigate) to achieve a net conservation gain and demonstrate that the direct, indirect, and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline. 	
<p>GRSG-M-FMUL-ST-090-Standard</p> <p>In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect sage-grouse and their habitat.</p>	<p>GRSG-M-FMUL-ST-086-Standard</p> <p>In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect sage-grouse and their habitat.</p>	<p>GRSG-M-FMUL-ST-079-Standard</p> <p>In GHMA, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect sage-grouse and their habitat.</p>	<p>No Change</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-M-FMUL-ST-091-Standard</p> <p>In sagebrush focal areas, there will be no surface occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-091-Standard</p> <p>Delete</p>	<p>GRSG-M-FMUL-ST-091-Standard</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMUL-ST-092-Standard</p> <p>In priority habitat management areas outside of sagebrush focal areas, proposed geothermal projects may be considered if:</p> <ul style="list-style-type: none"> • A team of agency greater sage-grouse experts from the Fish and Wildlife Service, Forest Service, BLM, and State Wildlife agency advises on project-mitigation measures, including lek buffer distances, using the best available science; • Mitigation actions are consistent with the Mitigation Strategy; and • The footprint of the project is consistent with the disturbance protocols identified in GRSG-GEN-ST-004. 	<p>GRSG-M-FMUL-ST-092-Standard</p> <p>Delete</p>	<p>GRSG-M-FMUL-ST-092-Standard</p> <p>Delete</p>	<p>Duplicative with GRSG-M-FMUL-ST-078-Standard</p>
<p>GRSG-M-FMUL-ST-093-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only allow geophysical exploration or similar type of exploratory operations that are consistent with vegetation objectives in</p>	<p>GRSG-M-FMUL-ST-087-Standard</p> <p>In priority and general habitat management areas, include applicable seasonal restrictions (Table D-1) when authorizing geophysical exploration or similar type of exploratory operations.</p>	<p>GRSG-M-FMUL-ST-080-Standard</p> <p>In PHMA and GHMA, include appropriate restrictions (e.g. limit drilling during breeding and nesting season) based on seasonal use periods (Table D-1) when authorizing geophysical exploration or similar type of exploratory operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>Table 1a or 1b, as appropriate, and include applicable seasonal restrictions.</p>			
		<p>GRSG-M-FMUL-MA-081-Management Approach</p> <p>Appendix G has stipulations developed for when standards and guidelines call for specific restrictions on fluid minerals activities.</p>	
<p>Fluid Minerals-Leased</p>			
<p>GRSG-M-FML-ST-094-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-ST-088-Standard</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-082-Standard</p> <p>In PHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-FML-ST-095-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 1a or 1b.</p>	<p>GRSG-M-FML-ST-089-Standard</p> <p>In priority and general habitat management areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>GRSG-M-FML-ST-083-Standard</p> <p>In PHMA and GHMA, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-M-FML-ST-096-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 greater sage-grouse and their habitats, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-090-Standard</p> <p>In priority and general habitat management areas, 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 greater sage-grouse and their habitats, consistent with the terms and conditions of the permit (Appendix G).</p>	<p>GRSG-M-FML-ST-084-Standard</p> <p>In PHMA and 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 greater sage-grouse and their habitats, consistent with the terms and conditions of the permit.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-ST-097-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their 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.</p>	<p>GRSG-M-FML-MA-091-Management Approach</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their 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.</p>	<p>GRSG-M-FML-GL-085-Guideline</p> <p>Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat.</p>	<p>Consistency with the 2012 Planning Rule</p>
		<p>GRSG-M-FML-MA-086-Management Approach</p> <p>If locating compressor stations in non-habitat or areas that would have no impact on greater sage-grouse is not possible, work with the operator to use</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-M-FML-GL-085-Guideline</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
		mufflers, sound insulation, or other features to reduce noise consistent with GRSG-GEN-ST-009-Standard.	
<p>GRSG-M-FML-ST-098-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to greater sage-grouse and their habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-092-Management Approach</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to greater sage-grouse and their habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-GL-087-Guideline</p> <p>In PHMA and GHMA, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to greater sage-grouse and their habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-099-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-MA-093-Management Approach</p> <p>In priority and general habitat management areas operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-088-Guideline</p> <p>In PHMA and GHMA, at the time of approval, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-100-Guideline</p> <p>On existing Federal leases in priority and general habitat management areas and sagebrush focal areas, when</p>	<p>GRSG-M-FML-MA-094-Management Approach</p> <p>On existing Federal leases in priority and general habitat management areas, when</p>	<p>GRSG-M-FML-GL-089-Guideline</p> <p>On existing Federal leases in PHMA and GHMA, when surface occupancy cannot be restricted due to existing rights or</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>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 greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>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 greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.</p>	
<p>GRSG-M-FML-GL-101-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-MA-095-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-GL-090-Guideline</p> <p>In PHMA and GHMA, where the Federal government owns the surface and the mineral estate is in non-Federal ownership, 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
Fluid Minerals- Operations			
<p>GRSG-M-FMO-ST-102-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-96-Standard</p> <p>In priority and general habitat management areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-091-Standard</p> <p>In PHMA and GHMA, do not authorize employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-M-FMO-ST-103-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-ST-097-Standard</p> <p>In priority and general habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-GL-092-Guideline</p> <p>In PHMA and GHMA, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-104-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-MA-98-Management Approach</p> <p>In priority and general habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-GL-093-Guideline</p> <p>In PHMA and GHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-105-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-MA-99-Management Approach</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-094-Guideline</p> <p>In PHMA and GHMA, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-106-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for</p>	<p>GRSG-M-FMO-GL-100-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>GRSG-M-FMO-GL-095-Guideline</p> <p>In PHMA and GHMA, dams, impoundments and ponds for mineral development should be constructed in a manner that reduces potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>West Nile virus. Examples of methods to accomplish this include:</p> <ul style="list-style-type: none"> • 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 			

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>spillway with steep sides.</p> <ul style="list-style-type: none"> • Fence pond sites to restrict access by livestock and other wild ungulates. • Remove or re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 			
	<p><u>GRSG-M-FMO-MA-101-Management Approach</u></p> <p>Utilize the following methods to reduce to potential for West Nile virus:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-MA-101-Management Approach</p> <p>Delete</p>	<p>Providing examples unnecessary</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
	<p>draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface 		
<p>GRSG-M-FMO-GL-107-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas 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.</p>	<p>GRSG-M-FMO-GL-102-Guideline</p> <p>In priority and general habitat management areas 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.</p>	<p>GRSG-M-FMO-GL-096-Guideline</p> <p>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.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
Locatable Minerals			
<p>GRSG-M-LM-ST-108-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only approve Plans of Operation if they include mitigation to protect greater sage-grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-103-Standard</p> <p>In priority and general habitat management areas, only approve Plans of Operation if they include mitigation to protect greater sage-grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-097-Standard</p> <p>In PHMA and GHMA, only approve Plans of Operation if they include mitigation (avoid and minimize) to protect greater sage-grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-LM-GL-109-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 Act 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-104-Guideline</p> <p>In priority and general habitat management areas, 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 Act 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-098-Guideline</p> <p>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 Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-LM-GL-110-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, abandoned mine sites should be closed or mitigated to reduce predation of greater sage-grouse by eliminating tall structures that could</p>	<p>GRSG-M-LM-GL-105-Guideline</p> <p>In priority and general habitat management areas, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater</p>	<p>GRSG-M-LM-GL-099-Guideline</p> <p>In PHMA and GHMA, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
provide nesting opportunities and perching sites for predators.	sage-grouse, consistent with the National Historic Preservation Act.	sage-grouse, consistent with the National Historic Preservation Act.	
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-111-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 greater sage-grouse and their habitats.</p>	<p>GRSG-M-NEL-MA-106-Management Approach</p> <p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</u></p>	<p>GRSG-M-NEL-GL-100-Guideline</p> <p>In PHMA and GHMA, include measures to restrict surface use, occupancy and seasonal activities for exploration with either recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses.</p> <p>In PHMA and GHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and appropriate measures (see standards, guidelines, and management approaches 005012), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend leasing.</p> <p>In PHMA and GHMA, where development would be by underground mining methods, include measures that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
		<p>At lease readjustment or lease renewal, evaluate measures to provide to the BLM to restrict surface use, occupancy and seasonal activities PHMA and GHMA. Where existing leases either are, or will be, developed by surface mining methods, include stipulations to reclaim disturbed lands to applicable greater sage-grouse habitat.</p>	
<p>GRSG-M-NEL-GL-112-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to greater sage-grouse and their habitat.</p>	<p>GRSG-M-NEL-MA-107-Management Approach</p> <p>In priority and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>GRSG-M-NEL-GL-101-Guideline</p> <p>In PHMA and GHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p> <p>Supports GRSG-GEN-DC-001-Desired Condition, GRSG-GEN-DC-002-Desired Condition, GRSG-GRSGH-DC-025-Desired Condition, GRSG-FM-DC-046-Desired Condition GRSG-RT-DC-071-Desired Condition</p>
Mineral Materials			

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-M-MM-ST-113-Standard</p> <p>In priority management areas and sagebrush focal areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-108-Standard</p> <p>In priority management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-102-Standard</p> <p>In PHMA, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-MM-ST-114-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to May 15 between 6 pm and 9 am 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.</p>	<p>GRSG-M-MM-ST-109-Standard</p> <p>Do not allow free-use mineral material collection during lekking season (Table D-1, generally March 1 to May 15) between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>GRSG-M-MM-ST-103-Standard</p> <p>Do not allow free-use mineral material collection during lekking season (Table D-1, generally March 1 to May 15) between 6 p.m. and 9 a.m. within 2 miles from the perimeter of active and pending leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-MM-ST-115-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1a or 1b).</p>	<p>GRSG-M-MM-ST-110-Standard</p> <p>In priority and general habitat management areas, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix D, Table D-3).</p>	<p>GRSG-M-MM-ST-104-Standard</p> <p>Management of new pits in general habitat management areas and management or expansion of existing pits in PHMA and GHMA will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix D, Table D-3, Table D-4).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>Predation</p>			

No Action Alternative (Nevada)	Proposed Action (Nevada) DEIS	Proposed Action (Nevada) FEIS	Issue/Clarification
<p>GRSG-P-DC-116-Desired Condition</p> <p>Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse.</p>	<p>GRSG-P-DC-111-Desired Condition</p> <p>Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse.</p>	<p>GRSG-P-DC-105-Desired Condition</p> <p>Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse.</p>	<p>No change</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-P-MA-112-Management Approach</p> <p>Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.</p>	<p>GRSG-P-MA-106-Management Approach</p> <p>Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.</p>	<p>Added - Support for other agencies that manage predators</p>

Table 2.8. Utah - Comparison of alternatives¹

¹Priority and general habitat management areas may contain non-habitat. Management direction would not apply to non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>No Change</p>
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas.² Disturbance in general management areas is limited, and there is little to no disturbance in priority habitat management areas and sagebrush focal areas except for valid existing rights and existing authorized uses.</p> <p>²Priority habitat management areas and general habitat management areas may contain areas of non-habitat, and</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas. Disturbance in general management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of PHMA and GHMA. Disturbance in general management areas is limited, and there is little to no disturbance in PHMA except for existing rights and existing authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>management direction would not apply to those areas of non-habitat. However, management direction would apply to all areas within sagebrush focal areas including non habitat.</p>			
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p><u>At the landscape scale</u>, in greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. <u>When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat.</u> Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in <u>Appendix E, Table E-1. The values in the tables should be considered as initial references and do not preclude development of local desired conditions or utilizing other indicators/values, based on site selection</u></p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 4% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Appendix E, Table E-1. The values in the tables should be considered as initial references and do not preclude development of local desired conditions or utilizing other indicators/values, based on site selection</p>	<p>Modifying Desired Conditions</p> <p>Consistency with literature</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	preferences of the local population and ecological site capability of sagebrush communities.	preferences of the local population and ecological site capability of sagebrush communities.	
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the</p>	<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project results in no net loss of habitat at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates no net loss of habitat. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing</p>	<p>GRSG-GEN-ST-004-Standard</p> <p>In PHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit (BSU) and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the BSU and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project results in no net loss of habitat at the BSU and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates no net loss of habitat. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of existing rights when authorizing new projects in priority habitat management areas.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	rights when authorizing new projects in priority habitat management areas.		
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, 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 Mitigation Strategy (Appendix B).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that result in no net loss, subject to valid existing rights, 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 Mitigation Strategy (Appendix E).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In PHMA, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that result in no net loss, subject to existing rights, by applying beneficial mitigation actions. Any compensatory mitigation will incorporate the concepts of durability, timeliness, and additionality as addressed in the Mitigation Strategy (Appendix E).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-GEN-ST-006-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement since the issuance of the 2015 ROD (2005).</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>In PHMA, do not authorize new large scale infrastructure or facilities that create sustained noise levels of ≥10 dB above ambient baseline at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>Clarification</p>
		<p>GRSG-GEN-MA-007-Management Approach</p>	<p>Supports GRSG-GEN-ST-006-Standard</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
		When implementing GRSG-GEN-ST-006-Standard, in coordination with the State of Utah, specific noise protocols for measurement and implementation will be developed as additional research and information emerges and as needed and mutually agreed to. These measures would be considered at the site-specific project level where and when appropriate.	
<p>GRSG-GEN-GL-007-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-007-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>No Change</p>
<p>GRSG-GEN-GL-008-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Table 1.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>Delete</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>Delete</p>	<p>Added to GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within 2 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.</p>	<p>No Change</p>
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GEN-MA-009-Management Approach</u></p>	<p>GRSG-GEN-MA-010-Management Approach</p>	<p>Habitat Management Area Designation</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	Every 5 years or in conjunction BLM and State of Utah, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map when a demonstrated need for change exists. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.	Every 5 years or when a demonstrated need exists, and in conjunction BLM and State of Utah, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map so that landscape-scale conservation remains appropriately aligned. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.	
Adaptive Management			
GRSG-AM-ST-010-Standard If a hard trigger is met, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger responses are identified in table XX of the Adaptive Management Appendix XX. The Forest Service will review available and pertinent data in coordination with greater sage-grouse biologists from multiple agencies.	GRSG-AM-ST-010-Standard When conditions result in a 20% or greater decline of average males per lek for four consecutive years (or remainder of criteria described in Appendix E) or there is a 20% loss of total GRSG habitat in PHMA or 20% loss of habitat within nesting or wintering areas within PHMAs, more restrictive management direction will be applied, in addition to identifying causal factors and implementing a corrective strategy. The responses identified in Appendix E will be followed.	GRSG-AM-ST-011-Standard If a hard or soft trigger is reached, and the causal factor is related to FS management, defer issuance for such projects or activities until an appropriate interagency management response strategy is implemented. The management response strategy shall include reverting back to prior management once the identified causal factor is resolved.	Adaptive Management Review Process
GRSG-AM-ST-011-Standard If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If it is determined that the decline is related to a natural variation in the population, no specific management actions would be	GRSG-AM-MA-011-Management Approach If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If it is determined that the decline is related to a natural variation in the population, no specific management actions would be	GRSG-AM-MA-012-Management Approach If a hard or soft trigger is identified based on either population monitoring or habitat monitoring, apply the Utah Adaptive Management Plan (Appendix E) to determine causal factors related to population and habitat hard and soft triggers and to identify and implement appropriate management responses.	Adaptive Management Review Process Consistency with the 2012 Planning Rule Supports GRSG-AM-ST-011-Standard

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline.</p>	<p>required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline (Appendix E).</p>		
<p>Lands and Realty</p> <p>Special-use Authorizations (Non-recreation)</p>			
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 3 years of reissuing permits.</p>	<p>GRSG-LR-SUA-GL-013-Guideline</p> <p>In nesting habitat in PHMA, do not authorize new or reissued special use permits unless measures to mitigate negative impacts to greater sage-grouse and habitat are included.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-LR-SUA-ST-013-Standard</p> <p><i>In priority habitat, sagebrush focal areas, and Anthro Mountain, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the</i></p>	<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority habitat management areas, only allow new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. Impacts to greater sage-grouse must be avoided. In limited circumstances, when other alternatives are not feasible or impacts cannot be avoided, offset by using</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In PHMA, only authorize new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. Impacts to greater sage-grouse must be avoided. In limited circumstances, when other alternatives are not feasible or impacts cannot be avoided, offset by using compensatory mitigation (GRSG-GEN-ST-005-Standard).</p>	<p>Clarification</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>exception. Existing authorized uses will continue to be recognized.</p>	<p>compensatory mitigation (GRSG-GEN-ST-005-Standard).</p>		
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-GL-014-Guideline</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-LR-SUA-GL-015-Guideline</p> <p>In GHMA, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat.</p>	<p>Clarification of Plan Content Definition</p>
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In PHMA, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) 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,</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In PHMA and GHMA, require protective stipulations (e.g., noise, tall structure, guy wire marking, perch deterrent installation, etc.) 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,</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	distribution lines, and communication tower sites).	distribution lines, and communication tower sites).	
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In PHMA, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, when a lands special-use authorization is revoked or terminated and no future use is contemplated, authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In PHMA and GHMA, when a lands special-use authorization is revoked or terminated and no future use is contemplated, authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-LR-SUA-ST-014-Standard</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-MA-019-Management Approach</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-MA-020-Management Approach</p> <p>Delete</p>	<p>Duplicative with existing law, regulation, policy</p>
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net loss of greater sage-grouse habitat or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In PHMA, do not approve landownership adjustments, including land exchanges, unless the action results in no net loss of greater sage-grouse habitat or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA -021-Management Approach</p> <p>In priority and general habitat management areas, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-GL-021-Guideline</p> <p>In PHMA and GHMA, and with minority federal ownership, when landownership adjustments are being authorized, consider a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
Land Withdrawal			
<p>GRSG-LR-LW-GL-023-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>Elimination of Withdrawals</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>Mountain, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>			
Wind and Solar			
<p>GRSG-WS-ST-024-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In priority habitat management areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In PHMA, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-WS-ST-025-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-023-Standard</p> <p>In priority habitat management areas, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-023-Standard</p> <p>In PHMA, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Greater Sage-grouse Habitat			
<p>GRSG-GRSGH-O-026-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Table 2.</p>	<p>GRSG-GRSGH-O-024-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Appendix E, Table E-2.</p>	<p>GRSG-GRSGH-O-024-Objective</p> <p>Improve greater sage-grouse habitat by removing invading conifers and other undesirable species annually, based upon the 10 year average number of acres shown in Appendix E, Table E-2.</p>	<p>Clarification</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-DC-025-Desired Condition</p>	<p>GRSG-GRSGH-DC-025-Desired Condition</p>	<p>Treatment of Invasive Species</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	
<p>GRSG-GRSGH-ST-027-Standard</p> <p>Design habitat restoration projects to move towards desired conditions (Table 1).</p>	<p>GRSG-GRSGH-ST-027-Standard</p> <p>Delete</p>	<p>GRSG-GRSGH-ST-027-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-GRSGH-ST-028-Standard</p> <p>On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.</p>	<p>GRSG-GRSGH-MA-026-Management Approach</p> <p>On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.</p>	<p>GRSG-GRSGH-ST-026-Standard</p> <p>On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-029-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).</p>	<p>GRSG-GRSGH-GL-027-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).</p>	<p>GRSG-GRSGH-GL-027-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).</p>	<p>No Change</p>
<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In PHMA and GHMA, actions and authorizations should be not be approved unless the spread of invasive annual and noxious plant species is designed to be prevented.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-GRSGH-GL-031-Guideline</p> <p>To facilitate safe and effective fire management actions in priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Table 1 should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1).</p>	<p>GRSG-GRSGH-MA-029-Management Approach</p> <p>To facilitate safe and effective fire management actions in priority and general habitat management areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Appendix E, Table E-1 should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse habitat attributes to move away from desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In PHMA, IHMA, and GHMA, do not authorize fuel treatments in high-risk areas unless to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In PHMA and GHMA, native plant species should be used when practicable to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority <u>and general</u> habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In PHMA and GHMA, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-O-032-Objective</p>	<p>GRSG-GRSGH-O-032-Objective</p>	<p>Treatment of Invasive Species</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts, ecological site descriptions, and state and transition models for each National Forest and Grassland.	Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts, ecological site descriptions, and state and transition models for each National Forest and Grassland.	
Nothing in 2015 Plan	GRSG-GRSGH-MA-033-Management Approach In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.	GRSG-GRSGH-MA-033-Management Approach In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.	Treatment of Invasive Species Supports GRSG-GRSGH-GL-031-Guideline
Nothing in 2015 Plan	GRSG-GRSGH-MA-034-Management Approach Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.	GRSG-GRSGH-MA-034-Management Approach Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in PHMA. Early detection and rapid response treatments remain the focus.	Treatment of Invasive Species
Livestock Grazing			
GRSG-LG-DC-034-Desired Condition In priority and general habitat management areas, sagebrush focal areas, within lek buffers, and Anthro Mountain, livestock grazing is managed to maintain or move towards desired conditions (Table 1).	GRSG-LG-DC-034-Desired Condition Delete	GRSG-LG-DC-034-Desired Condition Delete	Required by 2012 Planning Rule
GRSG-LG-ST-035-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve construction of	GRSG-LG-ST-035-Standard In priority habitat management area, do not approve construction of water	GRSG-LG-ST-035-Standard In PHMA, do not approve construction of water developments that would cause	Clarification

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
water developments unless beneficial to greater sage-grouse habitat.	developments <u>that would cause adverse effects to greater sage-grouse habitat.</u>	adverse effects to greater sage-grouse habitat.	
<p>GRSG-LG-GL-036-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p><u>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</u></p>	<p>GRSG-LG-GL-036-Guideline</p> <p>In PHMA and GHMA, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p><u>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than desired seasonal habitat condition, determine factors limiting achievement of the desired seasonal habitat conditions.</u></p>		<p>Duplicative with required Forest Plan Monitoring</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when grazing permits are waived without preference or obtained through permit cancellation, consider the</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>Duplicative with existing regulation and policy</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>			
<p>GRSG-LG-GL-038-Guideline</p> <p>Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance to breeding and nesting GRSG.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance to breeding and nesting GRSG.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-039-Guideline</p> <p>During the breeding and nesting season (from 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.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks are not allowed.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG behaviors. Specific routes should be identified, existing trails should be used, and stopovers on active leks during the breeding season should be restricted.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-040-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-040-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>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).</p>	<p>No Change</p>
<p>GRSG-LG-GL-041-Guideline</p>	<p>GRSG-LG-GL-041-Guideline</p>	<p>GRSG-LG-GL-040-Guideline</p>	<p>Clarification</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>To prevent predation from perching raptors, new permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>To prevent predation from perching raptors, new tall permanent livestock facilities that could serve as hunting perch (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks unless perch deterring modifications are made to the structure.</p>	
Fire Management			
<p>GRSG-FM-DC-042-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-042-Management Approach</p> <p>In priority and general habitat management areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-DC-041-Desired Condition</p> <p>In PHMA and GHMA, sage-grouse habitat is protected from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat is prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-ST-043-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-043-Standard</p> <p>In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.</p>	<p>GRSG-FM-GL-042-Guideline</p> <p>In PHMA and GHMA, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
			the 2012 Planning Rule
<p>GRSG-FM-ST-044-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority and general habitat management areas, if it is necessary to use prescribed fire <u>or other mechanical means</u> for restoration of greater sage-grouse habitat consistent with desired conditions in <u>Appendix E, Table E-1</u>, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-043-Management Approach</p> <p>In PHMA and GHMA, if it is necessary to use prescribed fire or other mechanical means for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Required by law and policy</p>
<p>GRSG-FM-GL-045-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p><u>In order to maintain sagebrush</u> 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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-044-Guideline</p> <p>In order to maintain sagebrush 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 or supports the attainment of desired conditions.</p>	<p>Clarification</p>
<p>GRSG-FM-GL-046-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p><u>In priority and general habitat management areas</u>, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>In PHMA and GHMA, when reseeding in fuel breaks, fire-resistant native plant species should be used if available and practicable, or use fire-resistant non-native species.</p>	<p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p> <p>Consistent with FSM 2070</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>that non-native plants will not degrade greater sage-grouse habitat in the long-term (> 5 years) and will prevent fire spread into GRSG habitat.</p>		
<p>GRSG-FM-GL-047-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Delete</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-FM-GL-048-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>Wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) should be located in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered,</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>In PHMA and GHMA, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited to the extent</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
and removal of sagebrush should be limited.	to the extent practicable to achieve suppression objectives.	practicable to achieve suppression objectives.	the 2012 Planning Rule
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority and general habitat management areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>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 determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-FM-MA-050-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions should result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In PHMA and GHMA, do not approve prescribed fire prescriptions that do not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>In PHMA and GHMA, planned fuel-breaks should incorporate roads and natural fuel breaks to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas</p> <p>Consistency with the 2012 Planning</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-052-Standard</p> <p>In priority and general habitat management areas, all fire-associated vehicles and equipment <u>are to</u> be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-051-Standard</p> <p>In PHMA and GHMA, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>Rule</p> <p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-054-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>Include unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); use local operating plans and resource advisor plans during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Delete</p>	<p>Duplicative with GRSG-FM-MA-052-Management Approach</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-FM-GL-056-Guideline</p> <p>In or near priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>In or near PHMA and GHMA, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-054-Guideline</p> <p>On critical fire weather days, when allocation of resource positioning is being decided, protection of greater sage-grouse habitat should receive high consideration, along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of PHMA and GHMA, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
sage-grouse habitat is a consideration along with other high values.			
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>In priority and general habitat management areas, use fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-056-Guideline</p> <p>In PHMA and GHMA, fire retardant and mechanized equipment should only be used if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to minimize sagebrush habitat loss consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	<p>GRSG-FM-GL-057-Guideline</p> <p>In PHMA and GHMA, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible and minimize sagebrush loss.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-041-Desired Condition</p>
Recreation			

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-R-DC-061-Desired Condition</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-059-Desired Condition</p> <p>Delete</p>	<p>GRSG-R-DC-059-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-R-ST-062-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-058-Guideline</p> <p>In PHMA, do not authorize temporary recreation uses (i.e., facilities or activities) that result in long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-063-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-MA-061-Management Approach</p> <p>In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-059-Guideline</p> <p>In PHMA and GHMA, when authorizing new recreation special-use authorizations terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-R-GL-064-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat or the development is required for visitor safety.</p>	<p>GRSG-R-GL-062-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In PHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>Roads/Transportation</p>			
<p>GRSG-RT-DC-065-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.</p>	<p>GRSG-RT-DC-063-Desired Condition</p> <p>In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>GRSG-RT-DC-061-Desired Condition</p> <p>In PHMA and GHMA, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>GRSG-RT-ST-066-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads</p>	<p>GRSG-RT-ST-064-Standard</p> <p>In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes,</p>	<p>GRSG-RT-ST-062-Standard</p> <p>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 to existing and authorized uses, public safety, or to access existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	standard, length, and number and avoid, minimize, and mitigate impacts.	
<p>GRSG-RT-ST-067-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-065-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>GRSG-RT-ST-063-Standard</p> <p>Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>No Change</p>
<p>GRSG-RT-ST-068-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not allow public motor vehicle use on temporary energy development roads.</p>	<p>GRSG-RT-ST-068-Standard</p> <p>Delete</p>	<p>GRSG-RT-ST-068-Standard</p> <p>Delete</p>	<p>Duplicative with Special Use Permit Issuance</p>
<p>GRSG-RT-GL-069-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-069-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-069-Guideline</p> <p>Delete</p>	<p>Included in GRSG-RT-DC-061-Desired Condition</p>
<p>GRSG-RT-GL-070-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-RT-ST-062-Standard</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
ephemeral drainages and stream crossings unless topography prevents doing so.			
<p>GRSG-RT-GL-071-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-RT-GL-072-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-MA-066-Management Approach</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-GL-064-Guideline</p> <p>In PHMA and GHMA, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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</p>	<p>GRSG-RT-MA-067-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-065-Guideline</p> <p>In PHMA and GHMA, road and road-way maintenance activities should not increase the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.			
Minerals			
Fluid-Unleashed			
<p>GRSG-M-FMUL-ST-074-Standard</p> <p>In priority habitat management areas and Anthro Mountain, any new oil and gas leases must include a No Surface Occupancy 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 greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and state wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; 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 the greater sage-grouse. 	<p>GRSG-M-FMUL-ST-068-Standard</p> <p>In priority habitat management areas, any new oil and gas leases or geothermal leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Impacts could be fully offset through mitigation; and • The exception will include appropriate controlled surface use and timing limitation stipulations 	<p>GRSG-M-FMUL-ST-066-Standard</p> <p>In PHMA, any new oil and gas leases or geothermal leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception, after review by an interagency technical team, could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Impacts could be fully offset through mitigation; and • The exception will include appropriate controlled surface use and timing limitation stipulations 	<p>Habitat Management Areas Designations</p> <p>Including Waivers, Exceptions, and Modifications on NSO Stipulation</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-M-FMUL-ST-075-Standard</p> <p>In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-075-Standard</p> <p>Delete</p>	<p>GRSG-M-FMUL-ST-075-Standard</p> <p>Delete</p>	<p>Mineral withdrawal no longer valid</p>
		<p>GRSG-M-FMUL-MA-067-Management Approach</p> <p>Appendix G has stipulations developed for when standards and guidelines call for</p>	

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
		specific restrictions on fluid minerals activities.	
Fluid-Leased			
<p>GRSG-M-FML-ST-076-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FML-ST-069-Standard</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, <u>will require Conditions of Approval (COA) that will avoid and minimize</u> surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-068-Standard</p> <p>In PHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-ST-077-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 1.</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>In priority habitat management areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in <u>Appendix E, Table E-1.</u></p>	<p>GRSG-M-FML-ST-069-Standard</p> <p>In PHMA, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in Appendix E, Table E-1.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-ST-078-Standard</p> <p>In general management areas, 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 the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-071-Standard</p> <p>In general management areas, 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 the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit (<u>Appendix G</u>).</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>In GHMA, <u>authorizations</u> of new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases will include stipulations necessary to <u>reduce impacts to</u> the greater sage-grouse and its habitat, consistent with the terms and conditions of the <u>lease</u>.</p>	<p>Clarification</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-M-FML-ST-079-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-MA-072-Management Approach</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-GL-071-Guideline</p> <p>Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat.</p>	<p>Clarification of Plan Content Definition</p>
		<p>GRSG-M-FML-MA-072-Management Approach</p> <p>If locating compressor stations in non-habitat or areas that would have no impact on greater sage-grouse 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.</p>	<p>Supports GRSG-M-FML-GL-071-Guideline</p>
<p>GRSG-M-FML-ST-080-Standard</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-073-Management Approach</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-073-Management Approach</p> <p>Delete</p>	<p>Clarification of Plan Content Definition</p> <p>Duplicative with GRSG-M-FML-ST-068-Standard, GRSG-M-FML-ST-070-Standard, and GRSG-M-FML-GL-071-Guideline</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-M-FML-ST-081-Standard</p> <p>Apply the following conditions of approval on existing fluid mineral leases in Anthro Mountain.</p> <ul style="list-style-type: none"> • Use a phased approach for development in greater sage-grouse habitat. • No well pads or permanent structures will be permitted within a 0.6 mile buffer of an occupied lek. • Project-related activities and vehicle access will not be allowed in or through the 0.6 mile lek buffer. • No project-related vehicles or activities (including routine maintenance, production vehicles, or work-over rigs) will be allowed from 1 hour before sunset to 2 hours after sunrise within mapped sage-grouse habitat from March 1 to May 31. • No surface disturbing activities (including construction, drilling, and well-flaring) will be allowed for wells located within mapped greater sage-grouse habitat from March 1 through June 30. • No well pad construction, road construction, drilling, or work-over rigs will be allowed on ridge tops from November 1 to March 1 within 4 miles of a lek. • Within mapped greater sage-grouse habitat, disturbance will be limited to an average of one disturbance per 	<p>GRSG-M-FML-ST-081-Standard</p> <p>Delete</p>	<p>GRSG-M-FML-ST-081-Standard</p> <p>Delete</p>	<p>Habitat Management Areas Designation</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>square mile (640 acres). Disturbance should be clustered in areas of habitat most distal from leks or areas of habitat least important to the greater sage-grouse.</p> <ul style="list-style-type: none"> • Disturbance within the mapped greater sage-grouse habitat on Anthro Mountain will be no more than 3%. • Within 4 miles of a lek, well pads and roads should avoid openings in the pinyon/juniper tracts. If avoidance of an opening is not possible, then well pads and roads should be located as close to the edge of the opening as possible. • Noise levels at leks must be limited to no more than 10dB above ambient (not to exceed 20- 24 dB), measured at the perimeter of a lek, during the breeding season (from March 1 to May 31). • Low profile tanks will be required for all well pads within mapped greater sage-grouse habitat. • Raptor perch avoidance devices will be installed on any required tank batteries in greater sage-grouse habitat. • Closed-loop drilling will be used for wells within greater sage-grouse habitat. <p>If a new lek is discovered outside of mapped habitat, contiguous greater sage-grouse habitat within 4 miles of the lek will be mapped. Apply the same protections to the new mapped habitat and the new lek.</p>			

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-M-FML-GL-082-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>In priority and general habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-073-Guideline</p> <p>In PHMA and GHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, practicable, and consistent with lease rights.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>On existing Federal leases in priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-075-Guideline</p> <p>On existing federal leases in priority habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>On existing federal leases in PHMA, when surface occupancy is requested due to existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-GL-084-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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</p>	<p>GRSG-M-FML-MA-076-Management Approach</p> <p>In priority and general habitat management areas, 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</p>	<p>GRSG-M-FML-GL-075-Guideline</p> <p>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 conservation measures, and design features to the appropriate surface management instruments to the maximum</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.	required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities (Appendix G).	extent permissible under existing authorities.	the 2012 Planning Rule Clarification
Fluid- Operations			
GRSG-M-FMO-ST-085-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , do not authorize employee camps.	GRSG-M-FMO-ST-077-Standard In priority habitat management areas do not authorize employee camps.	GRSG-M-FMO-ST-076-Standard In PHMA do not authorize employee camps.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-M-FMO-ST-086-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , 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-ST-078-Standard In priority habitat management areas, 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-ST-077-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.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-M-FMO-GL-087-Guideline In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-MA-079-Management Approach In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-GL-078-Guideline In PHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with the 2012 Planning Rule
GRSG-M-FMO-GL-088-Guideline	GRSG-M-FMO-GL-080-Guideline	GRSG-M-FMO-GL-079-Guideline	Elimination of Sagebrush Focal Areas

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>In PHMA and GHMA, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> ● 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. 	<p>GRSG-M-FMO-GL-081-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>GRSG-M-FMO-GL-080-Guideline</p> <p>In PHMA and GHMA, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 			
	<p>GRSG-M-FMO-MA-082-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-MA-081-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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 	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-M-FMO-GL-080-Guideline</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	<p>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.</p> <ul style="list-style-type: none"> 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 re-inject produced water. Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<p>rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> 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 re-inject produced water. Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FMO-GL-082-Guideline</p> <p>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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Coal Mines- Unleased			
<p>GRSG-M-CMUL-ST-091-Standard</p>	<p>GRSG-M-CMUL-ST-084-Standard</p>	<p>GRSG-M-CMUL-ST-083-Standard</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas, sagebrush focal areas, and Anthro Mountain.</p>	<p><u>When consenting to coal leases or coal lease modifications where development would be by underground mining methods, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas. At coal lease readjustment, bring forward stipulations for prohibiting the location of surface facilities in priority habitat management areas.</u></p> <p><u>For coal exploration licenses, prohibit surface facilities in priority habitat management areas; prescribe stipulations to protect greater sage-grouse and its habitat. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>When consenting to coal leases or coal lease modifications where development would be by underground mining methods, prescribe a lease stipulation prohibiting the location of surface facilities in PHMA. At coal lease readjustment, bring forward stipulations for prohibiting the location of surface facilities in priority habitat management areas.</p> <p>For coal exploration licenses, prohibit surface facilities in PHMA; prescribe stipulations to protect greater sage-grouse and its habitat. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p> <p>Consistency with the 2012 Planning Rule</p>
Coal Mines- Leased			
<p>GRSG-M-CML-ST-092-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new appurtenant surface facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if</p>	<p>GRSG-M-CML-ST-085-Standard</p> <p><u>If not stipulated in a coal lease, during the state agency permitting process, recommend against placement of surface facilities related to existing underground mines in priority habitat management areas. If new surface facilities associated with existing leases cannot be located outside of priority habitat management areas, then recommend location within any existing disturbed areas. If location within an existing disturbed area is not possible,</u></p>	<p>GRSG-M-CML-ST-084-Standard</p> <p>If not stipulated in a coal lease, during the state agency permitting process, recommend against placement of surface facilities related to existing underground mines in PHMA. If new surface facilities associated with existing leases cannot be located outside of priority habitat management areas, then recommend location within any existing disturbed areas. If location within an existing disturbed area is not possible, then locate</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>possible. If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.</p>	<p>then locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features, and recommend to the authorizing state agency that reclamation be designed to restore any disturbed greater sage-grouse habitat.</p>	<p>the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features, and recommend to the authorizing state agency that reclamation be designed to restore any disturbed greater sage-grouse habitat.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-CML-GL-093-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-086-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>GRSG-M-CML-GL-085-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p> <p>Consistency with the 2012 Planning Rule</p>
Locatable Minerals			
<p>GRSG-M-LM-ST-094-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining</p>	<p>GRSG-M-LM-ST-087-Standard</p> <p>In priority and general habitat management areas, only approve Plans of Operation with mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights of the mining</p>	<p>GRSG-M-LM-ST-086-Standard</p> <p>In PHMA and GHMA, only approve Plans of Operation with mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights provided for under the Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
claimant as granted by the General Mining Act of 1872, as amended.	claimant as granted by the Mining Law of 1872, as amended.		
<p>GRSG-M-LM-GL-095-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 Act 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-088-Guideline</p> <p>In priority and general habitat management areas, 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 Act 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-087-Guideline</p> <p>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 Mining Law of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-089-Guideline</p> <p>In priority and general habitat management areas, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>GRSG-M-LM-GL-088-Guideline</p> <p>In PHMA and GHMA, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-097-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p> <p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases.</u></p>	<p>GRSG-M-NEL-GL-089-Guideline</p> <p>In PHMA, include stipulations to restrict surface use, occupancy and seasonal activities for exploration with either recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
	<p>lease modifications, lease readjustments or lease renewals.</p> <p>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>In PHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and appropriate stipulations (see standards and guidelines 004-009), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend leasing.</p> <p>In PHMA where development would be by underground mining methods, include stipulations that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p> <p>At lease readjustment or lease renewal, evaluate stipulations to forward to the BLM to restrict surface use, occupancy and seasonal activities in PHMA. Where existing leases either are, or will be, developed by surface mining methods, include stipulations to reclaim disturbed lands to applicable greater sage-grouse habitat.</p>	<p>Rule</p> <p>Clarification of Regulatory Process</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-091-Management Approach</p> <p>In priority and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p> <p>In PHMA and GHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
Mineral Materials			
<p>GRSG-M-MM-ST-099-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-091-Standard</p> <p>In PHMA, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-MM-ST-100-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks, within the Biologically Significant Unit and</p>	<p>GRSG-M-MM-ST-93-Standard</p> <p>Do not allow mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>Do not allow mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>

No Action Alternative (Utah)	Proposed Action (Utah) DEIS	Proposed Action (Utah) FEIS	Issue/Clarification
<p>proposed project area if doing so does not exceed the disturbance cap.</p>			
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>In priority and general habitat management areas, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix E, Table E-1).</p>	<p>GRSG-M-MM-ST-093-Standard</p> <p>In PHMA and GHMA, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Desired Conditions</p> <p>Clarification</p>

Table 2-8a. Comparisons of State of Utah Alternative¹

¹Priority habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation 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 the greater sage-grouse.</p>	No Change
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas.² Disturbance in general management areas is limited, and there is little to no disturbance in priority habitat management areas and sagebrush focal areas except for valid existing rights and existing authorized uses.</p> <p>²Priority habitat management areas and general habitat management areas may</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority habitat management. There is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of PHMA. There is little to no disturbance in priority habitat management areas except for existing rights and existing authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Added footnote to definition of HMAs</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>contain areas of non-habitat, and management direction would not apply to those areas of non-habitat. However, management direction would apply to all areas within sagebrush focal areas including non habitat.</p>			
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Appendix E, Table E-1. The values in the tables should be considered as initial references and do not preclude development of local desired conditions or utilizing other</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 4% 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 grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Appendix E, Table E-1. The values in the tables should be considered as initial references and do not preclude development of local desired conditions or utilizing other</p>	<p>Modifying Desired Conditions</p> <p>Consistency with literature</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
	indicators/values, based on site selection preferences of the local population and ecological site capability of sagebrush communities.	indicators/values, based on site selection preferences of the local population and ecological site capability of sagebrush communities.	
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of</p>	<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project results in no net loss of habitat at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates no net loss of habitat. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as</p>	<p>GRSG-GEN-ST-004-Standard</p> <p>In PHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project results in no net loss of habitat at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates no net loss of habitat. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	a result of development of existing rights when authorizing new projects in priority habitat management areas.	
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, 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 Mitigation Strategy (Appendix B).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that result in no net loss, subject to valid existing rights, 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 Mitigation Strategy (Appendix E).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In PHMA, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that result in no net loss, subject to existing rights, 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 Mitigation Strategy (Appendix E).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-GEN-ST-006-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement since the issuance of the 2015 ROD (2005).</p>	<p>GRSG-GEN-ST-006-Guideline</p> <p>In PHMA, do not authorize new large scale infrastructure or facilities that create sustained noise levels of ≥10 dB above ambient baseline at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.</p>	<p>Clarification</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
		<p>GRSG-GEN-MA-007-Management Approach When implementing GRS-GEN-ST-006-Standard, in coordination with the State of Utah, specific noise protocols for measurement and implementation will be developed as additional research and information emerges and as needed and mutually agreed to. These measures would be considered at the site-specific project level where and when appropriate.</p>	<p>Supports GRS-GEN-ST-006-Guideline</p>
<p>GRSG-GEN-GL-007-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-007-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-008-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>No Change</p>
<p>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 1.</p>	<p>GRSG-GEN-GL-008-Guideline Delete</p>	<p>GRSG-GEN-GL-008-Guideline Delete</p>	<p>Added to GRS-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-GL-009-Guideline Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-008-Guideline Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-009-Guideline Development of tall structures within 2 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.</p>	<p>No Change</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-009-Management Approach</p> <p>Every 5 years or in conjunction BLM and State of Utah, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map when a demonstrated need for change exists. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.</p>	<p>GRSG-GEN-MA-010-Management Approach</p> <p>Every 5 years or in conjunction BLM and State of Utah, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map when a demonstrated need for change exists. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.</p>	<p>Habitat Management Area Designation</p>
<p>Adaptive Management</p>			
<p>GRSG-AM-ST-010-Standard</p> <p>If a hard trigger is met, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger responses are identified in table XX of the Adaptive Management Appendix XX. The Forest Service will review available and pertinent data in coordination with greater sage-grouse biologists from multiple agencies.</p>	<p>GRSG-AM-ST-010-Standard</p> <p>When conditions result in a 20% or greater decline of average males per lek for four consecutive years (or remainder of criteria described in Appendix E) or there is a 20% loss of total GRSG habitat in PHMA or 20% loss of habitat within nesting or wintering areas within PHMAs, more restrictive management direction will be applied, in addition to identifying causal factors and implementing a corrective strategy. The responses identified in Appendix E will be followed.</p>	<p>GRSG-AM-ST-011-Standard</p> <p>If a hard or soft trigger is reached, and the causal factor is related to FS management, defer issuance for such projects or activities until an appropriate interagency management response strategy is implemented. The management response strategy shall include reverting back to prior management once the identified causal factor is resolved.</p>	<p>Adaptive Management Review Process</p>
<p>GRSG-AM-ST-011-Standard</p> <p>If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If</p>	<p>GRSG-AM-MA-011-Management Approach</p> <p>If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If</p>	<p>GRSG-AM-MA-012-Management Approach</p> <p>If a hard or soft trigger is identified based on either population monitoring or habitat monitoring, apply the Utah Adaptive Management Plan (Appendix E) to determine causal factors related to population and habitat hard and soft</p>	<p>Adaptive Management Review Process</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>it is determined that the decline is related to a natural variation in the population, no specific management actions would be required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline.</p>	<p>it is determined that the decline is related to a natural variation in the population, no specific management actions would be required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline (Appendix E).</p>	<p>triggers and to identify and implement appropriate management responses.</p>	<p>Supports GRSG-AM-ST-009-Standard</p>
<p>Lands and Realty</p>			
<p>Special-use Authorizations (Non-recreation)</p>			
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 3 years of reissuing permits.</p>	<p>GRSG-LR-SUA-GL-013-Guideline</p> <p>In nesting habitat in PHMA, do not authorize new or reissued special use permits unless measures to mitigate negative impacts to greater sage-grouse and habitat are included.</p>	<p>Clarification</p>
<p>GRSG-LR-SUA-ST-013-Standard</p> <p><i>In priority habitat, sagebrush focal areas, and Anthro Mountain, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly</i></p>	<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority habitat management areas, only allow new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. Impacts to greater sage-grouse must be avoided. In limited circumstances, when other</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In PHMA, only authorize new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. Impacts to greater sage-grouse must be avoided. In limited circumstances, when other alternatives are not feasible or</p>	<p>Clarification</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. Existing authorized uses will continue to be recognized.	alternatives are not feasible or impacts cannot be avoided, offset by using compensatory mitigation (GRSG-GEN-ST-005-Standard).	impacts cannot be avoided, offset by using compensatory mitigation (GRSG-GEN-ST-005-Standard).	
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>Delete</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In PHMA, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In PHMA, require protective stipulations (e.g., noise, tall structure, guy wire marking, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	(e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In PHMA, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority habitat management areas, when a lands special-use authorization is revoked or terminated and no future use is contemplated, authorization holder <u>must</u> remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In PHMA, when a lands special-use authorization is revoked or terminated and no future use is contemplated, authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. When new transmission lines and pipelines</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-LR-SUA-ST-014-Standard</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
are not buried, locate them adjacent to existing transmission lines and pipelines.			
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-MA-019-Management Approach</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-MA-020-Management Approach</p> <p>Delete</p>	<p>Duplicative with existing law, regulation, policy</p>
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net loss of greater sage-grouse habitat or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-019-Standard</p> <p>In PHMA, do not approve landownership adjustments, including land exchanges, unless the action results in no net loss of greater sage-grouse habitat or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA-021-Management Approach</p> <p>In priority habitat management areas, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA-020-Management Approach</p> <p>In PHMA with minority federal ownership, when landownership adjustments are being authorized, consider a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
Land Withdrawal			

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-LR-LW-GL-023-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>Elimination of Withdrawals</p>
Wind and Solar			
<p>GRSG-WS-ST-024-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In priority habitat management areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-021-Standard</p> <p>In PHMA, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-WS-ST-025-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-023-Standard</p> <p>In priority habitat management areas, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In PHMA, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Greater Sage-grouse Habitat			
<p>GRSG-GRSGH-O-026-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Table 2.</p>	<p>GRSG-GRSGH-O-024-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Appendix E, Table E-2.</p>	<p>GRSG-GRSGH-O-023-Objective</p> <p>Improve greater sage-grouse habitat by removing invading conifers and other undesirable species annually, based upon the 10 year average number of acres shown in Appendix E, Table E-2.</p>	<p>Clarification</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
Nothing in 2015 Plan	GRSG-GRSGH-DC-025-Desired Condition Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	GRSG-GRSGH-DC-024-Desired Condition Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	Treatment of Invasive Species
GRSG-GRSGH-ST-027-Standard Design habitat restoration projects to move towards desired conditions (Table 1).	GRSG-GRSGH-ST-027-Standard Delete	GRSG-GRSGH-ST-027-Standard Delete	Required by 2012 Planning Rule
GRSG-GRSGH-ST-028-Standard On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.	GRSG-GRSGH-MA-026-Management Approach On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.	GRSG-GRSGH-ST-025-Standard On the Dixie and Fishlake National Forests, where greater sage-grouse PHMA overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.	Clarification of Plan Content Definition
GRSG-GRSGH-GL-029-Guideline When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).	GRSG-GRSGH-GL-027-Guideline When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).	GRSG-GRSGH-GL-026-Guideline When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100-years old).	No Change
GRSG-GRSGH-GL-030-Guideline In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	GRSG-GRSGH-GL-028-Guideline In priority habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	GRSG-GRSGH-GL-027-Guideline In PHMA, actions and authorizations should be not be approved unless the spread of invasive annual and noxious plant species is designed to be prevented.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-GRSGH-GL-031-Guideline</p> <p>To facilitate safe and effective fire management actions in priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Table 1 should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1).</p>	<p>GRSG-GRSGH-MA-029-Management Approach</p> <p>To facilitate safe and effective fire management actions in priority habitat management areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Appendix E, Table E-1 should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In PHMA, do not authorize fuel treatments in high-risk areas unless to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority habitat management areas, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-029-Guideline</p> <p>In PHMA, native plant species should be used when practicable to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In PHMA, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-O-032-Objective</p> <p>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat</p>	<p>GRSG-GRSGH-O-031-Objective</p> <p>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat</p>	<p>Treatment of Invasive Species</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
	using resistance and resilience concepts, ecological site descriptions, and state and transition models for each National Forest and Grassland.	using resistance and resilience concepts, ecological site descriptions, and state and transition models for each National Forest and Grassland.	
Nothing in 2015 Plan	GRSG-GRSGH-MA-033-Management Approach In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.	GRSG-GRSGH-MA-032-Management Approach In designing post wildfire recovery treatments, consider resistance and resilience ecological site descriptions and state and transition models.	Treatment of Invasive Species Supports GRSG-GRSGH-GL-030-Guideline
Nothing in 2015 Plan	GRSG-GRSGH-MA-034-Management Approach Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.	GRSG-GRSGH-MA-033-Management Approach Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in PHMA. Early detection and rapid response treatments remain the focus.	Treatment of Invasive Species
Livestock Grazing			
GRSG-LG-DC-034-Desired Condition In priority and general habitat management areas, sagebrush focal areas, within lek buffers, and Anthro Mountain, livestock grazing is managed to maintain or move towards desired conditions (Table 1).	GRSG-LG-DC-034-Desired Condition Delete	GRSG-LG-DC-034-Desired Condition Delete	Required by 2012 Planning Rule
GRSG-LG-ST-035-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.	GRSG-LG-ST-035-Standard In priority habitat management area, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.	GRSG-LG-ST-034-Standard In PHMA, do not approve construction of water developments that would cause adverse effects to greater sage-grouse habitat.	Changing Livestock Grazing Guidelines

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-LG-GL-036-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>GRSG-LG-GL-035-Guideline</p> <p>In PHMA, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than desired seasonal habitat condition, determine factors limiting achievement of the desired seasonal habitat conditions.</p>		<p>Duplicative with required Forest Plan Monitoring</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>Removed-Covered in existing Forest Service policy and direction</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>			
<p>GRSG-LG-GL-038-Guideline</p> <p>Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance to breeding and nesting GRSG.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance to breeding and nesting GRSG.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-039-Guideline</p> <p>During the breeding and nesting season (from 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.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks are not allowed.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG behaviors. Specific routes should be identified, existing trails should be used, and stopovers on active leks during the breeding season should be restricted.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-040-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-040-Guideline</p> <p>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).</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>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).</p>	<p>No Change</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-LG-GL-041-Guideline</p> <p>New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-041-Guideline</p> <p>To prevent predation from perching raptors, new permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>To prevent predation from perching raptors, new tall permanent livestock facilities that could serve as hunting perch (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks unless perch deterring modifications are made to the structure.</p>	<p>Clarification</p>
Fire Management			
<p>GRSG-FM-DC-042-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-042-Management Approach</p> <p>In priority habitat management areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-DC-040-Desired Condition</p> <p>In PHMA, sage-grouse habitat is protected from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat is prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Plan Content Definition</p>
<p>GRSG-FM-ST-043-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with</p>	<p>GRSG-FM-ST-043-Standard</p> <p>In priority habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.</p>	<p>GRSG-FM-GL-041-Guideline</p> <p>In PHMA, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
desired conditions in Table 1 or for pile burning.			
<p>GRSG-FM-ST-044-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-042-Management Approach</p> <p>In PHMA, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Required by law and policy</p>
<p>GRSG-FM-GL-045-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>In order to maintain sagebrush 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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-043-Guideline</p> <p>In order to maintain sagebrush 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 or supports the attainment of desired conditions.</p>	<p>Clarification</p>
<p>GRSG-FM-GL-046-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>In priority habitat management areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term (> 5 years)</p>	<p>GRSG-FM-GL-044-Guideline</p> <p>In PHMA, when reseeding in fuel breaks, fire-resistant native plant species should be used if available and practicable, or use fire-resistant non-native species</p>	<p>Clarification</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.	and will prevent fire spread into GRSG habitat.		
<p>GRSG-FM-GL-047-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Delete</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-FM-GL-048-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>Wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) should be located in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>In PHMA, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority habitat management areas, 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 determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>In PHMA, 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 determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-FM-MA-050-Management Approach</p> <p>In priority habitat management areas prescribed fire prescriptions should result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In PHMA, do not approve prescribed fire prescriptions that do not result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In PHMA, planned fuel-breaks should incorporate roads and natural fuel breaks to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

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<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where practical and available, 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 beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-052-Standard</p> <p>In priority habitat management areas, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-050-Standard</p> <p>In PHMA, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-054-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>Include unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); use local operating plans and resource advisor plans during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Localized maps of priority habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Delete</p>	<p>Included in GRSG-FM-MA-051-Management Approach</p>

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<p>GRSG-FM-GL-056-Guideline</p> <p>In or near priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>In or near priority habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>In or near PHMA, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>On critical fire weather days, when allocation of resource positioning is being decided, protection of greater sage-grouse habitat should receive high consideration, along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority habitat management areas along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of PHMA along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
sage-grouse habitat is a consideration along with other high values.	sage-grouse habitat is a consideration along with other high values.		
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>In priority habitat management areas, use fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-055-Guideline</p> <p>In PHMA, fire retardant and mechanized equipment should only be used if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to minimize sagebrush habitat loss consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-059-Guideline</p> <p>In priority habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	<p>GRSG-FM-GL-056-Guideline</p> <p>In PHMA, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible and minimize sagebrush loss.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-040-Desired Condition</p>

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Recreation			
<p>GRSG-R-DC-061-Desired Condition</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-059-Desired Condition</p> <p>Delete</p>	<p>GRSG-R-DC-059-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-R-ST-062-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority habitat management areas, 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 the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-057-Guideline</p> <p>In PHMA, do not authorize temporary recreation uses (i.e., facilities or activities) that result in long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-063-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-MA-061-Management Approach</p> <p>In priority habitat management areas, terms and conditions that protect and/or restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-058-Guideline</p> <p>In PHMA, when authorizing new recreation special-use authorizations, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-R-GL-064-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 the greater sage-grouse or its habitat or the development is required for visitor safety.</p>	<p>GRSG-R-GL-062-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.</p>	<p>GRSG-R-GL-059-Guideline</p> <p>In PHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain Consistency with the 2012 Planning Rule</p>
Roads/Transportation			
<p>GRSG-RT-DC-065-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.</p>	<p>GRSG-RT-DC-063-Desired Condition</p> <p>In priority habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>GRSG-RT-DC-060-Desired Condition</p> <p>In PHMA, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>GRSG-RT-ST-066-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing</p>	<p>GRSG-RT-ST-064-Standard</p> <p>In priority habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads</p>	<p>GRSG-RT-ST-061-Standard</p> <p>In PHMA, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access existing rights. If necessary to construct new roads and trails for one of these purposes, construct them</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
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 mitigate impacts.	and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	
GRSG-RT-ST-067-Standard Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.	GRSG-RT-ST-065-Standard No Change	GRSG-RT-ST-062-Standard Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.	No Change
GRSG-RT-ST-068-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not allow public motor vehicle use on temporary energy development roads.	GRSG-RT-ST-068-Standard Delete	GRSG-RT-ST-068-Standard Delete	Duplicative with Special Use Permit Issuance
GRSG-RT-GL-069-Guideline In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.	GRSG-RT-GL-069-Guideline Delete	GRSG-RT-GL-069-Guideline Delete	Included in GRSG-RT-DC-060-Desired Condition
GRSG-RT-GL-070-Guideline In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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	GRSG-RT-GL-070-Guideline Delete	GRSG-RT-GL-070-Guideline Delete	Duplicative with GRSG-RT-ST-061-Standard

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and constructed at right angles to ephemeral drainages and stream crossings unless topography prevents doing so.			
<p>GRSG-RT-GL-071-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-RT-GL-072-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-MA-066-Management Approach</p> <p>In priority habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-GL-063-Guideline</p> <p>In PHMA, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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</p>	<p>GRSG-RT-MA-067-Management Approach</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-RT-GL-064-Guideline</p> <p>In PHMA, road and road-way maintenance activities should not increase the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p> <p>Consistency with the 2012 Planning</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
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.			Rule
Minerals			
Fluid-Unleashed			
<p>GRSG-M-FMUL-ST-074-Standard</p> <p>In priority habitat management areas and Anthro Mountain, any new oil and gas leases must include a No Surface Occupancy 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 greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and state wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and <p>The exception provides a clear net conservation gain to the greater sage-grouse.</p>	<p>GRSG-M-FMUL-ST-068-Standard</p> <p>In priority habitat management areas, any new oil and gas leases or geothermal leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Impacts could be fully offset through mitigation; and • The exception will include appropriate controlled surface use and timing limitation stipulations 	<p>GRSG-M-FMUL-ST-065-Standard</p> <p>In PHMA, any new oil and gas leases or geothermal leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception, after review by an interagency technical team, could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Impacts could be fully offset through mitigation; and • The exception will include appropriate controlled surface use and timing limitation stipulations 	<p>Habitat Management Areas Designations</p> <p>Including Waivers, Exceptions, and Modifications on NSO Stipulation</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Clarification</p>
<p>GRSG-M-FMUL-ST-075-Standard</p> <p>In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-075-Standard</p> <p>Delete</p>	<p>GRSG-M-FMUL-ST-075-Standard</p> <p>Delete</p>	<p>Mineral withdrawal no longer valid</p>
		<p>GRSG-M-FMUL-MA-066-Management Approach</p>	<p>Supports GRSG-M-FMUL-ST-065-Standard</p>

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		Appendix G has stipulations developed for when standards and guidelines call for specific restrictions on fluid minerals activities.	
Fluid-Leased			
<p>GRSG-M-FML-ST-076-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FML-ST-069-Standard</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, <u>will require Conditions of Approval (COA) that will avoid and minimize</u> surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-067-Standard</p> <p>In PHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-ST-077-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 1.</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>In priority habitat management areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in <u>Appendix E, Table E-1.</u></p>	<p>GRSG-M-FML-ST-068-Standard</p> <p>In PHMA, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in Appendix E, Table E-1.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-ST-078-Standard</p> <p>In general management areas, 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 the greater sage-grouse and its habitat,</p>	<p>GRSG-M-FML-ST-071-Standard</p> <p>Delete</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>Delete</p>	<p>Clarification</p>

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consistent with the terms and conditions of the permit.			
<p>GRSG-M-FML-ST-079-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-MA-072-Management Approach</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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.</p>	<p>GRSG-M-FML-GL-069-Guideline</p> <p>Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat.</p>	<p>Consistency with the 2012 Planning Rule</p>
		<p>GRSG-M-FML-MA-070-Management Approach</p> <p>If locating compressor stations in non-habitat or areas that would have no impact on greater sage-grouse 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.</p>	<p>Supports GRSG-M-FML-GL-069-Guideline</p>
<p>GRSG-M-FML-ST-080-Standard</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-073-Management Approach</p> <p>In priority habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-073-Management Approach</p> <p>Delete</p>	<p>Duplicative with GRSG-M-FML-ST-067-Standard and GRSG-M-FML-GL-069-Guideline</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-M-FML-ST-081-Standard</p> <p>Apply the following conditions of approval on existing fluid mineral leases in Anthro Mountain.</p> <ul style="list-style-type: none"> • Use a phased approach for development in greater sage-grouse habitat. • No well pads or permanent structures will be permitted within a 0.6 mile buffer of an occupied lek. • Project-related activities and vehicle access will not be allowed in or through the 0.6 mile lek buffer. • No project-related vehicles or activities (including routine maintenance, production vehicles, or work-over rigs) will be allowed from 1 hour before sunset to 2 hours after sunrise within mapped sage-grouse habitat from March 1 to May 31. • No surface disturbing activities (including construction, drilling, and well-flaring) will be allowed for wells located within mapped greater sage-grouse habitat from March 1 through June 30. • No well pad construction, road construction, drilling, or work-over rigs will be allowed on ridge tops from November 1 to March 1 within 4 miles of a lek. • Within mapped greater sage-grouse habitat, disturbance will be limited to an average of one disturbance per 	<p>GRSG-M-FML-ST-081-Standard</p> <p>Delete</p>	<p>GRSG-M-FML-ST-081-Standard</p> <p>Delete</p>	<p>Habitat Management Areas Designation</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>square mile (640 acres). Disturbance should be clustered in areas of habitat most distal from leks or areas of habitat least important to the greater sage-grouse.</p> <ul style="list-style-type: none"> • Disturbance within the mapped greater sage-grouse habitat on Anthro Mountain will be no more than 3%. • Within 4 miles of a lek, well pads and roads should avoid openings in the pinyon/juniper tracts. If avoidance of an opening is not possible, then well pads and roads should be located as close to the edge of the opening as possible. • Noise levels at leks must be limited to no more than 10dB above ambient (not to exceed 20- 24 dB), measured at the perimeter of a lek, during the breeding season (from March 1 to May 31). • Low profile tanks will be required for all well pads within mapped greater sage-grouse habitat. • Raptor perch avoidance devices will be installed on any required tank batteries in greater sage-grouse habitat. • Closed-loop drilling will be used for wells within greater sage-grouse habitat. <p>If a new lek is discovered outside of mapped habitat, contiguous greater sage-grouse habitat within 4 miles of the lek will be mapped. Apply the same protections to the new mapped habitat and the new lek.</p>			

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-M-FML-GL-082-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, operators should be encouraged to reduce disturbance to greater sage-grouse 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 greater sage-grouse habitat where appropriate and feasible and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-071-Guideline</p> <p>In PHMA, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, practicable, and consistent with lease rights.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>On existing Federal leases in priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-075-Guideline</p> <p>On existing federal leases in priority habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-072-Guideline</p> <p>On existing federal leases PHMA, when surface occupancy is requested due to existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FML-GL-084-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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</p>	<p>GRSG-M-FML-MA-076-Management Approach</p> <p>In priority habitat management areas, 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</p>	<p>GRSG-M-FML-GL-073-Guideline</p> <p>In PHMA, 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</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.	required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities (Appendix G).	maximum extent permissible under existing authorities.	the 2012 Planning Rule
Fluid- Operations			
GRSG-M-FMO-ST-085-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , do not authorize employee camps.	GRSG-M-FMO-ST-077-Standard In priority habitat management areas do not authorize employee camps.	GRSG-M-FMO-ST-074-Standard In PHMA do not authorize employee camps.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-M-FMO-ST-086-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , 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-ST-078-Standard In priority habitat management areas, 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-ST-075-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.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-M-FMO-GL-087-Guideline In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-MA-079-Management Approach In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	GRSG-M-FMO-GL-076-Guideline In PHMA, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with the 2012 Planning Rule
GRSG-M-FMO-GL-088-Guideline	GRSG-M-FMO-GL-080-Guideline	GRSG-M-FMO-GL-077-Guideline	Elimination of Sagebrush Focal Areas

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>In priority habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>In PHMA, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> ● 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. 	<p>GRSG-M-FMO-GL-081-Guideline</p> <p>In priority habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>GRSG-M-FMO-GL-078-Guideline</p> <p>In PHMA, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<ul style="list-style-type: none"> ● 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 re-inject produced water. ● Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 			
	<p><u>GRSG-M-FMO-MA-082-Management Approach</u></p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> ● 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 	<p><u>GRSG-M-FMO-MA-079-Management Approach</u></p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> ● 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 	<p>Clarification of Plan Content Definition</p> <p>Supports GRSG-M-FMO-GL-078-Guideline</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
	<p>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.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<p>effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-M-FMO-GL-080-Guideline</p> <p>In PHMA, 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Coal Mines- Unleased			
<p>GRSG-M-CMUL-ST-091-Standard</p>	<p>GRSG-M-CMUL-ST-084-Standard</p>	<p>GRSG-M-CMUL-ST-081-Standard</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas, sagebrush focal areas, and Anthro Mountain.</p>	<p><u>When consenting to coal leases or coal lease modifications where development would be by underground mining methods, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas. At coal lease readjustment, bring forward stipulations for prohibiting the location of surface facilities in priority habitat management areas.</u></p> <p><u>For coal exploration licenses, prohibit surface facilities in priority habitat management areas; prescribe stipulations to protect greater sage-grouse and its habitat. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>When consenting to coal leases or coal lease modifications where development would be by underground mining methods, prescribe a lease stipulation prohibiting the location of surface facilities in PHMA. At coal lease readjustment, bring forward stipulations for prohibiting the location of surface facilities in priority habitat management areas.</p> <p>For coal exploration licenses, prohibit surface facilities in PHMA; prescribe stipulations to protect greater sage-grouse and its habitat. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>Coal Mines- Leased</p>			
<p>GRSG-M-CML-ST-092-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new appurtenant surface facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if</p>	<p>GRSG-M-CML-ST-085-Standard</p> <p><u>If not stipulated in a coal lease, during the state agency permitting process, recommend against placement of surface facilities related to existing underground mines in priority habitat management areas. If new surface facilities associated with existing leases cannot be located outside of priority habitat management areas, then recommend location within any existing disturbed areas. If location within an existing disturbed area is not possible,</u></p>	<p>GRSG-M-CML-ST-082-Standard</p> <p>If not stipulated in a coal lease, during the state agency permitting process, recommend against placement of surface facilities related to existing underground mines in PHMA. If new surface facilities associated with existing leases cannot be located outside of priority habitat management areas, then recommend location within any existing disturbed areas. If location within an existing disturbed area is not possible, then locate</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>possible. If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.</p>	<p>then locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features, and recommend to the authorizing state agency that reclamation be designed to restore any disturbed greater sage-grouse habitat.</p>	<p>the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features, and recommend to the authorizing state agency that reclamation be designed to restore any disturbed greater sage-grouse habitat.</p>	
<p>GRSG-M-CML-GL-093-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-086-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>GRSG-M-CML-GL-083-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
Locatable Minerals			
<p>GRSG-M-LM-ST-094-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.</p>	<p>GRSG-M-LM-ST-087-Standard</p> <p>In priority habitat management areas, only approve Plans of Operation with mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the Mining Law of 1872, as amended.</p>	<p>GRSG-M-LM-ST-084-Standard</p> <p>In PHMA, only approve Plans of Operation with mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights provided for under the Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
<p>GRSG-M-LM-GL-095-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 Act 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-088-Guideline</p> <p>In priority habitat management areas, 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 Act 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-085-Guideline</p> <p>In PHMA, 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 Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-089-Guideline</p> <p>In priority habitat management areas, <u>when closing</u> abandoned mine sites <u>remove</u> tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>GRSG-M-LM-GL-086-Guideline</p> <p>In PHMA, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse, consistent with the National Historic Preservation Act.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-097-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p> <p><u>In priority habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p>	<p>GRSG-M-NEL-GL-087-Guideline</p> <p>In PHMA, include stipulations to restrict surface use, occupancy and seasonal activities for exploration with either recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses.</p> <p>In PHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Plan Content Definition</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
	<p>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>appropriate stipulations (see standards and guidelines 004-009), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend leasing.</p> <p>In PHMA where development would be by underground mining methods, include stipulations that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p> <p>At lease readjustment or lease renewal, evaluate stipulations to forward to the BLM to restrict surface use, occupancy and seasonal activities in PHMA. Where existing leases either are, or will be, developed by surface mining methods, include stipulations to reclaim disturbed lands to applicable greater sage-grouse habitat.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-091-Management Approach</p> <p>In priority habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>GRSG-M-NEL-GL-088-Guideline</p> <p>In PHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
			Clarification of Regulatory Process
Mineral Materials			
<p>GRSG-M-MM-ST-099-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-089-Standard</p> <p>In PHMA, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-MM-ST-100-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 p.m. and 9 a.m. 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.</p>	<p>GRSG-M-MM-ST-93-Standard</p> <p>Do not allow mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>GRSG-M-MM-ST-090-Standard</p> <p>Do not allow mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>In priority habitat management areas, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 2-7a).</p>	<p>GRSG-M-MM-ST-091-Standard</p> <p>In PHMA, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 2-7a).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah) DEIS	State of Utah Alternative (Utah) FEIS	Issue/Clarification
			Desired Conditions Clarification

Table 2-9. Wyoming - Comparison of alternatives¹

¹Priority, connectivity, and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
Greater Sage-grouse General			
<p>GRSG-GRSGH-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse 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 the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation to provide for multiple aspects of species life requirements (e.g. breeding, nesting, brood rearing, etc.). 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 provide for food, cover, and nesting habitat for the greater sage-grouse.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation to provide for multiple aspects of species life requirements (e.g. breeding, nesting, brood rearing, etc.). 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 provide for food, cover, and nesting habitat for the greater sage-grouse.</p>	<p>Clarification</p>
<p>GRSG-GRSGH-DC-002-Desired Condition</p> <p>In greater sage-grouse habitat management areas, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% 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</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>In greater sage-grouse habitat management areas, habitats are adequately distributed to support greater sage-grouse populations. 70% or more of lands capable of producing sagebrush have from 5 to 25% sagebrush canopy cover and less than 10% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>In greater sage-grouse HMAs, habitats are adequately distributed to support greater sage-grouse populations. 70% or more of lands capable of producing sagebrush have from 5 to 25% sagebrush canopy cover and less than 4% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral concealment from March 15 through June</p>	<p>Habitat Management Areas Designations</p> <p>Modifying Desired Conditions</p> <p>Consistency with literature</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>sustain a rich diversity of perennial grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>concealment from March 15 through June 30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and maintain sagebrush cover in the 328 feet adjacent to riparian/mesic meadows. When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions. Within Winter Concentration Areas (as mapped by the State of Wyoming) sufficient sagebrush height and density provides food and cover during this seasonal period.</p>	<p>30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and maintain sagebrush cover adjacent to riparian/mesic meadows. Within Winter Concentration Areas (as mapped by the State of Wyoming) sufficient sagebrush height and density provides food and cover during this seasonal period.</p>	
	<p>GRSG- GEN -MA-003-Management Approach</p> <p>The values for greater sage-grouse habitat attributes in Appendix F are initial references based on range-wide habitat selection by greater sage-grouse. These initial references should be refined collaboratively to fit local habitats used by greater sage-grouse, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>GRSG- GEN -MA-003-Management Approach</p> <p>The values for greater sage-grouse desired conditions in Appendix F are initial references based on range-wide habitat selection by greater sage-grouse. These initial references should be refined collaboratively to fit local habitats used by greater sage-grouse, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>Modifying Desired Conditions</p> <p>Supports GRSG-GEN-DC-001-Desired Condition and GRSG-GEN-DC-002-Desired Condition</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-GRSGH-ST-003-Standard</p>	<p>GRSG-GRSGH-ST-003-Standard</p> <p>Delete</p>	<p>GRSG-GRSGH-ST-003-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
Design habitat restoration projects to move towards the desired conditions in Table 1.			
		<p>GRSG-GEN-ST-004-Standard</p> <p>If a hard or soft trigger is identified based on either population monitoring or habitat monitoring, identify and implement appropriate management responses for the specific casual factor in the decline of populations and/or habitats. In cooperation with the Adaptive Management Working Group, implement an appropriate response strategy to address causal factors.</p> <p>If a hard trigger is hit, the Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. The Forest Service will cooperate with the Adaptive Management Working Group to initiate development of an interim response strategy within 14 days and initiate a causal factor assessment. The interim response strategy will be implemented within 90 days for the appropriate Biologically Significant Unit. Adaptive management actions shall include reverting back to prior management once the identified causal factor is resolved.</p>	<p>Adaptive Management Review Process</p>
GRSG-GRSGH-ST-004-Standard	GRSG- GEN-MA-004-Management Approach	GRSG-GEN-MA-005-Management Approach	Consistency with the 2012 Planning Rule

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>A soft trigger is hit when there is any deviation from normal trends in habitat or population in any given year. Normal population trends are calculated as the five-year running mean of annual population counts. Metrics include but are not limited to annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool evaluations. The Forest Service, with the assistance of the BLM, local Wyoming Game and Fish Department offices, and local sage-grouse working groups, will evaluate the metrics with the Adaptive Management Working Group on an annual basis. The purpose of these strategies is to address the localized greater sage-grouse population and habitat changes by providing the framework in which project management will change if monitoring identifies negative population and habitat anomalies to avoid crossing a hard trigger threshold. This strategy may include curtailment of activities that may adversely affect the greater sage-grouse population or habitat. In cooperation with the Adaptive Management Working Group, implement an appropriate response strategy to address causal factors.</p>	<p>A soft trigger is hit when there is any deviation from normal trends in habitat or population in any given year. Normal population trends are calculated as the five-year running mean of annual population counts. Metrics include but are not limited to annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool evaluations. The Forest Service, with the assistance of the BLM, local Wyoming Game and Fish Department offices, and local sage-grouse working groups, will evaluate the metrics with the Adaptive Management Working Group on an annual basis. The purpose of these strategies is to address the localized greater sage-grouse population and habitat changes by providing the framework in which project management will change if monitoring identifies negative population and habitat anomalies to avoid crossing a hard trigger threshold. This strategy may include curtailment of activities that may adversely affect the greater sage-grouse population or habitat. In cooperation with the Adaptive Management Working Group, implement an appropriate response strategy to address causal factors.</p>	<p>A soft trigger is hit when there is any deviation from normal trends in habitat or population in any given year. Normal population trends are calculated as the five-year running mean of annual population counts. Metrics include but are not limited to annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool evaluations. The Forest Service, with the assistance of the BLM, local Wyoming Game and Fish Department offices, and local sage-grouse working groups, will evaluate the metrics with the Adaptive Management Working Group on an annual basis. The purpose of these strategies is to address the localized greater sage-grouse population and habitat changes by providing the framework in which project management will change if monitoring identifies negative population and habitat anomalies to avoid crossing a hard trigger threshold. This strategy may include curtailment of activities that may adversely affect the greater sage-grouse population or habitat.</p>	<p>Supports GRSG-GEN-ST-004-Standard</p>
<p>GRSG-GRSGH-ST-005-Standard</p> <p>Hard triggers are considered a catastrophic indicator that the species is not responding to conservation actions or that a larger-scale impact or set of impacts</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>Hard triggers are considered a catastrophic indicator that the species is not responding to conservation actions or that a larger-scale impact or set of impacts</p>	<p>GRSG-GEN-MA-006-Management Approach</p> <p>Hard triggers are considered a catastrophic indicator that the species is not responding to conservation actions or</p>	<p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>is having a negative effect. Metrics include but are not limited to number of active leks, acres of available habitat, and population trends based upon lek counts. Within the range of normal population variables (five-year running mean of annual population counts), hard triggers shall be determined to take effect when two of the three metrics exceed 60 percent of normal variability for the area under management in a single year or when any of the three metrics exceed 40% of normal variability for a 3-year time period within a 5-year range of analysis. A minimum of 3 consecutive years in a 5-year period is used to determine trends (i.e., Y1-2-3, Y2-3-4, Y3-4-5). If a hard trigger is hit, the Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days.</p> <p>Cooperate with the Adaptive Management Working Group to initiate development of an interim response strategy within 14 days and initiate a causal factor assessment. Implement the interim response strategy within 90 days for the appropriate Biologically Significant Unit. Once the causal factor assessment has been completed, the interim strategy will be modified to adequately address the causal factors.</p>	<p>is having a negative effect. Metrics include but are not limited to number of active leks, acres of available habitat, and population trends based upon lek counts. Within the range of normal population variables (five-year running mean of annual population counts), hard triggers shall be determined to take effect when two of the three metrics exceed 60 percent of normal variability for the area under management in a single year or when any of the three metrics exceed 40% of normal variability for a 3-year time period within a 5-year range of analysis. A minimum of 3 consecutive years in a 5-year period is used to determine trends (i.e., Y1-2-3, Y2-3-4, Y3-4-5). If a hard trigger is hit, the Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. Adaptive management actions will be reversed once the identified causal factor is resolved.</p>	<p>that a larger-scale impact or set of impacts is having a negative effect. Metrics include but are not limited to number of active leks, acres of available habitat, and population trends based upon lek counts. Within the range of normal population variables (five-year running mean of annual population counts), hard triggers shall be determined to take effect when two of the three metrics exceed 60 percent of normal variability for the area under management in a single year or when any of the three metrics exceed 40% of normal variability for a 3-year time period within a 5-year range of analysis. A minimum of 3 consecutive years in a 5-year period is used to determine trends (i.e., Y1-2-3, Y2-3-4, Y3-4-5).</p> <p>Once the causal factor assessment has been completed, the interim strategy will be modified to adequately address the causal factors. The Adaptive Management Working Group will establish a process to review and reverse adaptive management actions once the identified causal factor is resolved (e.g., returning to previous management once objectives of interim management strategy have been met).</p>	<p>Supports GRSG-GEN-ST-004-Standard</p>
	<p>GRSG-GEN-MA-006-Management Approach</p>	<p>GRSG-GEN-MA-006-Management Approach</p>	<p>Incorporated into GRSG-GEN-ST-004-Standard and GRSG-</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	<p>Cooperate with the Adaptive Management Working Group to initiate development of an interim response strategy within 14 days and initiate a causal factor assessment. Implement the interim response strategy within 90 days for the appropriate Biologically Significant Unit. Once the causal factor assessment has been completed, the interim strategy will be modified to adequately address the causal factors. The Adaptive Management Working Group will establish a process to review and reverse adaptive management actions once the identified causal factor is resolved (e.g., returning to previous management once objectives of interim management strategy have been met).</p>	<p>Delete</p>	<p>GEN-MA-007-Management Approach</p>
<p>GRSG-GRSGH-GL-006-Guideline</p> <p>Within priority habitat management areas and sagebrush focal areas in northeast Wyoming, vegetation treatments in nesting and wintering habitat that would reduce sagebrush canopy to less than 15% should be restricted.</p>	<p>GRSG-GEN-GL-007-Guideline</p> <p>Within priority habitat management areas in northeast Wyoming, to maintain adequate nesting and wintering habitat, vegetation treatments that would reduce sagebrush canopy to less than 15% should be restricted.</p>	<p>GRSG-GEN-GL-007-Guideline</p> <p>Within PHMA in northeast Wyoming, to maintain adequate nesting and wintering habitat, vegetation treatments that would reduce sagebrush canopy to less than 15% should be restricted.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GRSGH-GL-007- Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).</p>	<p>Clarification No change</p>
<p>GRSG-GRSGH-GL-008-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>In priority, connectivity and general habitat management areas actions and</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>In greater sage-grouse HMAs, actions and authorizations should not be approved</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>areas, actions and authorizations should be designed to limit the spread and effect of undesirable non-native plant species.</p>	<p>authorizations should be designed to limit the spread and effect of noxious and invasive plant species.</p>	<p>unless the spread of invasive annual and noxious plant species is designed to be prevented.</p>	
<p>GRSG-GRSGH-GL-009-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas and sagebrush focal areas, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in Table 1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions (Table 1).</p>	<p>GRSG-GEN-GL-010-Guideline</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management areas, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions.</p>	<p>GRSG-GEN-GL-010-Guideline</p> <p>To facilitate safe and effective fire management actions, in greater sage grouse HMAs, fuel treatments in high- risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GRSGH-GL-010-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GEN-GL-011-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions.</p>	<p>GRSG-GEN-GL-011-Guideline</p> <p>In greater sage-grouse HMAs native plant species should be used, when possible, to maintain, restore, or enhance desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GRSGH-GL-011-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-011-Guideline</p> <p>Delete</p>	<p>GRSG-GRSGH-GL-011-Guideline</p> <p>Delete</p>	<p>Incorporated into GRS-GEN-DC-002-Desired Condition</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-012-Management Approach</p> <p>Every 5 years or in conjunction with State of Wyoming and the Sage-grouse</p>	<p>GRSG-GEN-O-012-Objective</p> <p>Every 5 years or in conjunction with State of Wyoming and the Sage-grouse Implementation Team, evaluate the</p>	<p>Habitat Management Areas Designations</p> <p>Consistency with</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	<p>Interagency Team, evaluate the Habitat Management Area (HMA) Map when a demonstrated need for change exists. These evaluations will ensure that the latest version of the Wyoming Core Area maps are considered, and promote consistency across administrative boundaries. If the Sage-grouse Interagency Team adopts a new version of Wyoming Core Area maps, during the interim period before the HMAs can be amended (Plan Amendment), if projects occur in newly established Core Areas, the Forest Service would consider project level adjustments/decisions/alternatives that align with the State of Wyoming's Core Area designation and protections.</p>	<p>Habitat Management Area (HMA) Map when a demonstrated need for change exists. These evaluations will ensure that the latest version of the Wyoming Core Area maps are considered, and promote consistency across administrative boundaries. If the Sage-grouse Implementation Team adopts a new version of Wyoming Core Area maps (which include connectivity and winter concentration areas) during the interim period before the HMAs can be amended (Plan Amendment), if projects occur in newly established Core Areas, the Forest Service would consider project level adjustments/decisions/alternatives that align with the State of Wyoming's Core Area designation and protections.</p>	<p>the 2012 Planning Rule</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-013-Management Approach</p> <p>Within the broader context of Early Detection and Rapid Response strategies for invasive species management, prioritize treatments for invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas.</p>	<p>GRSG-GEN-MA-013-Management Approach</p> <p>Within the broader context of Early Detection and Rapid Response strategies for invasive species management, prioritize treatments for invasive and noxious plant populations that have the potential to impact sage-grouse habitat in PHMA.</p>	<p>Treatment of Invasive Species</p> <p>Consistency with the 2012 Planning Rule</p>
<p>Timing, Distance, Density, and Disturbance¹ ¹ An exception may be made with concurrence from the next higher official that the approved action would not impair the function of the WY designated core area to provide for the current or subsequent seasonal habitat, life-history,</p>	<p>Timing, Distance, Density, and Disturbance¹ ¹ Standards, guidelines and management approaches 014 through 025 should all be reviewed together and sequentially regarding a given proposed activity. These items have been formatted to align as close as practicable to the Wyoming's</p>	<p>Timing, Distance, Density, and Disturbance¹ ¹ Standards, guidelines, and management approaches 014 through 026 should all be reviewed together and sequentially regarding a given proposed activity. These items have been formatted to align as close as practicable to the Wyoming's</p>	

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>or behavioral needs of the greater sage-grouse. Exceptions may also be granted for prescribed fire activity that is intended to protect or improve greater sage-grouse habitat over time.</p>	<p>Sage-grouse Executive order and promote consistent management of resources across agency boundaries and jurisdictions.</p>	<p>Sage-grouse Executive order and promote consistent management of resources across agency boundaries and jurisdictions.</p>	
<p>GRSG-TDDD-GL-021-Guideline¹¹</p> <p>In priority-core habitat management areas and sagebrush focal areas, limit the density of activities related to oil and gas development or mining activities to no more than an average of one pad or mining operation per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.</p>	<p>GRSG-TDDD-ST-014-Standard</p> <p>In priority habitat management areas, limit the density of activities related to oil and gas development to no more than an average of one pad per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.</p>	<p>GRSG-TDDD-GL-014-Guideline</p> <p>In PHMA, limit the density of activities related to development to no more than an average of one activity per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-TDDD-GL-022-Guideline¹¹</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% cap. An exception is described in GRSG-M-LM-ST-097-Standard. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>GRSG-TDDD-GL-015-Guideline</p> <p>In priority habitat management areas, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% threshold. In connectivity habitat management areas the threshold not to be exceeded is an average of 5% per 640 acres. An exception is described in GRSG-M-LM-ST-095-Standard.</p>	<p>GRSG-TDDD-GL-015-Guideline</p> <p>In PHMA, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances, (including wildfire after 2011), cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% threshold. In connectivity habitat management areas the threshold not to be exceeded is an average of 5% per 640 acres of suitable habitat within the corridor.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-TDDD-ST-012-Standard²</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.6 mile radius of the perimeter of occupied leks that are located in priority habitat management and sagebrush focal areas.</p>	<p>GRSG-TDDD-GL-016-Guideline</p> <p>To support breeding opportunities in priority and connectivity habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.6 mile radius of the perimeter of occupied leks.</p>	<p>GRSG-TDDD-GL-016-Guideline</p> <p>To support breeding opportunities in PHMA and CHMA, do not authorize new surface occupancy or surface disturbing activities on or within a 0.6 mile radius of the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-TDDD-ST-013-Standard¹⁰</p> <p>In general habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.25 mile radius of the perimeter of occupied leks.</p>	<p>GRSG-TDDD-GL-017-Guideline</p> <p>To support breeding opportunities in general habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.25 mile radius of the perimeter of occupied leks.</p>	<p>GRSG-TDDD-GL-017-Guideline</p> <p>To support breeding opportunities in GHMA, do not authorize new surface occupancy or surface disturbing activities on or within a 0.25 mile radius of the perimeter of occupied leks.</p>	<p>Clarification of Plan Content Definition</p>
<p>GRSG-TDDD-GL-016-Guideline³</p> <p>In priority-core habitat management areas and sagebrush focal areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30. Where credible data, based upon field analysis, support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-018-Guideline</p> <p>To support breeding and nesting in priority habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30. Where data based upon field analysis support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-018-Guideline</p> <p>To support breeding and nesting in PHMA, do not authorize new surface disturbing or disruptive activities from March 15 through June 30. Where data based upon field analysis support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or subsequent to the above dates, but not both.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-TDDD-GL-017-Guideline¹¹</p> <p>Within priority-connectivity habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30 within 4 miles of a lek perimeter. Where credible data, based upon field analysis, support different timeframes for this seasonal restriction, dates may be shifted by either 14 days before or after the above dates, but not both.</p>	<p>GRSG-TDDD-GL-019-Guideline</p> <p>To support breeding and nesting within connectivity habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30 within 4 miles of a lek perimeter. Where data based upon field analysis, support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or after the above dates, but not both.</p>	<p>GRSG-TDDD-GL-019-Guideline</p> <p>To support breeding and nesting within CHMA, do not authorize new surface disturbing or disruptive activities from March 15 through June 30 within 4 miles of a lek perimeter. Where data based upon field analysis, support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or after the above dates, but not both.</p>	<p>Habitat Management Areas Designations</p>
<p>GRSG-TDDD-GL-018-Guideline¹¹</p> <p>In general habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 to June 30 within 2 miles of the lek or lek perimeter of any occupied lek located inside general areas. Where credible data, based upon field analysis, support different timeframes for this restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-020-Guideline</p> <p>To support breeding and nesting in general habitat management areas, do not authorize new surface disturbing or new disruptive activities from March 15 to June 30 within 2 miles of the lek or lek perimeter of any occupied lek located inside general areas. Where data based upon field analysis, support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-020-Guideline</p> <p>To support breeding and nesting in GHMA, do not authorize new surface disturbing or new disruptive activities from March 15 to June 30 within 2 miles of the lek or lek perimeter of any occupied lek located inside general areas. Where data based upon field analysis, support different seasonal restriction timeframes, dates may be shifted by up to 14 days before or subsequent to the above dates, but not both.</p>	<p>Clarification</p>
<p>GRSG-TDDD-ST-014-Standard</p> <p>Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to May 15) from 6 p.m. to 8 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the</p>	<p>GRSG-TDDD-GL-021-Guideline</p> <p>To support breeding near leks in priority habitat management areas, do not authorize new surface disturbing activities that create noise (individually or cumulatively) at 10dB above baseline noise measured at the perimeter of an occupied lek from 6 p.m. to 8 a.m. during the breeding season (March 1 to May 15).</p>	<p>GRSG-TDDD-GL-021-Guideline</p> <p>In PHMA, do not authorize new projects that create noise levels, either individual or cumulative, that exceed 10 dBA (as measured by L50) above baseline noise at the perimeter of the lek (or lek center if no perimeter is yet mapped) from 6 p.m. to 8 a.m. during the breeding season (March 1 to May 15).</p>	<p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>past 10 years in the ambient baseline measurement.</p>	<p>Do not include noise resulting from human activities that have been authorized and initiated within 10 years prior to the issuance of the 2015 ROD, in the ambient baseline measurement.</p>		
		<p>GRSG-GEN-MA-022-Management Approach</p> <p>When implementing GRS-G-TDDD-GL-022-Guideline, in coordination with the State of Wyoming, specific noise protocols for measurement and implementation will be developed as additional research and information emerges. These measures would be considered at the site-specific project level where and when appropriate.</p>	<p>Supports GRS-G-TDDD-GL-021-Guideline</p>
<p>GRSG-TDDD-ST-015-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, 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 Mitigation Framework (Appendix B).</p>	<p>GRSG-TDDD-ST-022-Standard</p> <p>In priority habitat management areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation that provide no net habitat loss to the species, measured at the statewide scale, subject to valid existing rights, 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 State of Wyoming Greater Sage-grouse Compensatory Mitigation Framework.</p>	<p>GRSG-TDDD-ST-023-Standard</p> <p>In PHMA, when authorizing new anthropogenic disturbances, only allow exceptions if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by mitigation that provide no net habitat loss to the species, measured at the statewide scale, subject to existing rights.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	<p>GRSG-TDDD-GL-023-Guideline</p> <p>To reduce impacts to sage-grouse in general habitat management areas, new land use authorizations may be issued, but should be collocated, as practicable, within existing designated corridors, rights-of-way, disturbances, or non-habitat areas. The authorization should consider design criteria to avoid and minimize impacts to the greater sage-grouse and its habitat.</p>	<p>GRSG-TDDD-GL-024-Guideline</p> <p>To reduce impacts to sage-grouse in GHMA, new land use authorizations that may create anthropogenic disturbances may be issued, but should be collocated, as practicable, within existing designated corridors, rights-of-way, disturbances, or non-habitat areas. The authorization should consider design criteria to avoid and minimize impacts to the greater sage-grouse and its habitat.</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Clarification</p>
	<p>GRSG-TDDD-MA-024-Management Approach</p> <p>If, after avoidance and minimization, a proposed project still exceeds timing, density, disturbance, distance or noise requirements (WY Executive Order 2015-4 Stipulations), the Wyoming Compensatory Mitigation Framework is the primary mechanism to evaluate and quantify debits, and calculate the number of credits required for compensatory mitigation. Refer to Appendix F for the Mitigation Framework.</p>	<p>GRSG-TDDD-MA-025-Management Approach</p> <p>If, after avoidance and minimization, a proposed project still exceeds timing, density, disturbance, distance or noise requirements (from most up to date WY Executive Order), include an alternative using the Wyoming Compensatory Mitigation Framework as the primary means to evaluate and quantify debits, and calculate the number of credits required for compensatory mitigation. Refer to Appendix F for the Mitigation Framework and work collaboratively with the State point of contact (Wyoming Game and Fish Department’s Habitat Protection Program) when applying the Wyoming Mitigation Framework.</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-LR-SUA-ST-023-Standard</p>
<p>GRSG-TDDD-GL-019-Guideline¹¹</p> <p>Within mapped winter concentration areas in priority-core habitat management areas and sagebrush focal areas, do not</p>	<p>GRSG-TDDD-GL-025-Guideline</p> <p>Use Forest Orders to restrict surface disturbing or disruptive activities from December 1 through March 14 in mapped</p>	<p>GRSG-TDDD-GL-026-Guideline</p> <p>Use Forest Orders to restrict surface disturbing or disruptive activities from December 1 through March 14 in mapped</p>	<p>Clarification</p> <p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>authorize new surface disturbing or disruptive activities from December 1 through March 14 to protect priority-core and sagebrush focal area greater sage-grouse populations that use these winter concentration habitats.</p>	<p>Winter Concentration Areas. As new data become available regarding Winter Concentration Areas, update seasonal use maps and apply stipulations (Appendix G).</p>	<p>Winter Concentration Areas. As new data become available regarding Winter Concentration Areas, update seasonal use maps and apply stipulations.</p>	<p>Habitat Management Areas Designations</p>
<p>GRSG-TDDD-GL-020-Guideline¹¹</p> <p>Within mapped winter concentration areas in priority- connectivity and general habitat management areas, do not authorize new surface disturbing or disruptive activities from December 1 through March 14 where winter concentration areas are identified as supporting populations of greater sage-grouse that attend leks within priority-core habitat management areas and sagebrush focal areas.</p>	<p>GRSG-TDDD-GL-020-Guideline¹¹</p> <p>Delete</p>	<p>GRSG-TDDD-GL-020-Guideline¹¹</p> <p>Delete</p>	<p>Duplicative with GRSG-TDDD-GL-026-Guideline</p>
Infrastructure			
<p>GRSG-INFRA-GL-023-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, when constructing new infrastructure and during maintenance, replacement, and upgrades to existing infrastructure, impacts to the greater sage-grouse and its habitat should be mitigated.</p> <ul style="list-style-type: none"> Existing guy wires should be removed or appropriately marked with bird flight diverters to make them more visible to the greater sage-grouse in flight. Authorization of new infrastructure with guy wires should be restricted. 	<p>GRSG-INFRA-GL-026-Guideline</p> <p>In priority habitat management areas, when constructing new infrastructure and during maintenance, replacement, and upgrades to existing infrastructure, impacts to the greater sage-grouse and its habitat should be mitigated.</p> <ul style="list-style-type: none"> Existing guy wires should be removed or appropriately marked with bird flight diverters to make them more visible to the greater sage-grouse in flight. Authorization of new infrastructure with guy wires should be restricted. 	<p>GRSG-INFRA-GL-027-Guideline</p> <p>In PHMA, when authorizing the construction of new infrastructure and maintenance, replacement, and upgrades to existing infrastructure, impacts to the greater sage-grouse and its habitat should be mitigated.</p> <ul style="list-style-type: none"> Existing guy wires should be appropriately marked with bird flight diverters to make them more visible to the greater sage-grouse in flight. Authorization of new infrastructure with guy wires should be restricted. Power lines (distribution and transmission) should be designed to 	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<ul style="list-style-type: none"> Power lines (distribution and transmission) should be designed to minimize wildlife-related impacts and constructed to the latest APLIC standards. Permanent structures should be designed or sited to minimize impacts to the greater sage-grouse, with emphasis on locating and operating facilities that create movement (e.g., pump jacks) or attract frequent human use and vehicular traffic (e.g., fluid storage tanks) in a manner that will minimize disturbance of the greater sage-grouse or interference with habitat use. Liquid gathering facilities in priority habitat management areas should be buried and reclaimed to limit or eliminate human disturbance and physical habitat disturbance. To reduce truck traffic and perching and nesting of ravens and raptors, tanks should not be placed at well locations. 	<ul style="list-style-type: none"> Power lines (distribution and transmission) should be designed to minimize wildlife-related impacts and constructed to the latest APLIC standards. Permanent structures should be designed or sited to minimize impacts to the greater sage-grouse, with emphasis on locating and operating facilities that create movement (e.g., pump jacks) or attract frequent human use and vehicular traffic (e.g., fluid storage tanks) in a manner that will minimize disturbance of the greater sage-grouse or interference with habitat use. Liquid gathering facilities in priority habitat management areas should be buried and reclaimed to limit or eliminate human disturbance and physical habitat disturbance. To reduce truck traffic and perching and nesting of ravens and raptors, tanks should not be placed at well locations. 	<p>minimize wildlife-related impacts and constructed to the latest APLIC standards.</p> <ul style="list-style-type: none"> Permanent structures should be designed or sited to minimize impacts to the greater sage-grouse, with emphasis on locating and operating facilities that create movement (e.g., pump jacks) or attract frequent human use and vehicular traffic (e.g., fluid storage tanks) in a manner that will minimize disturbance of the greater sage-grouse or interference with habitat use. Liquid gathering facilities in priority and connectivity habitat management areas and winter concentration areas should be buried and reclaimed to limit or eliminate human disturbance and physical habitat disturbance. To reduce truck traffic and perching and nesting of ravens and raptors, tanks should not be placed at well locations. 	
Lands and Realty			
Special-use Authorizations (Non-recreation)			
<p>GRSG-LR-SUA-ST-024-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, restrict issuance of new special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines distribution lines, and communication</p>	<p>GRSG-LR-SUA-ST-027-Standard</p> <p>In priority habitat management areas, restrict issuance of new special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines distribution lines, and communication towers. Exceptions may</p>	<p>GRSG-LR-SUA-ST-028-Standard</p> <p>In PHMA and CHMA habitat management areas and winter concentration areas, do not authorize new special-use permits for infrastructure, such as high-voltage transmission lines, major pipelines distribution lines, and communication</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>towers. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided with the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided with the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat and refer to Standard 23 (compensatory mitigation). Existing authorized uses will continue to be recognized.</p>	<p>towers unless exceptions apply. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided with the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat and refer to GRSG-TDDD-MA-026-Management Approach (compensatory mitigation). Existing authorized uses will continue to be recognized.</p>	
<p>GRSG-LR-SUA-ST-025-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize temporary lands special-use permits (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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-028-Standard</p> <p>In priority habitat management areas, do not authorize temporary lands special-use permits (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 the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-029-Standard</p> <p>In PHMA and CHMA and winter concentration areas, do not authorize temporary lands special-use permits (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 the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-026-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when a lands special-use authorization is revoked or terminated and no future use is contemplated, require the authorization holder to remove overhead</p>	<p>GRSG-LR-SUA-ST-029-Standard</p> <p>In priority and general habitat management areas, when a lands special-use authorization is revoked or terminated and no future use is contemplated, require the authorization holder to remove</p>	<p>GRSG-LR-SUA-ST-030-Standard</p> <p>In greater sage-grouse HMA, 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</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
lines and other infrastructure in compliance with 36 CFR 251.60(i).	overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).	infrastructure in compliance with 36 CFR 251.60(i).	
<p>GRSG-LR-SUA-ST-027-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, new power transmission projects must be located within the 2-mile wide transmission line route in south-central and southwestern Wyoming or as close as technically feasible (i.e., within 0.5 mile) on either side of existing 115 kV or larger transmission lines or corridors creating a route no wider than 1 mile. These projects will not be counted against the 5% disturbance cap.</p>	<p>GRSG-LR-SUA-GL-030-Guideline</p> <p>In priority habitat management areas, new power transmission projects must be located within the 2-mile wide transmission line route in south-central and southwestern Wyoming or as close as technically feasible (i.e., within 0.5 mile) on either side of existing 115 kV or larger transmission lines or corridors creating a route no wider than 1 mile. These projects will not be counted against the 5% disturbance threshold.</p>	<p>GRSG-LR-SUA-GL-031-Guideline</p> <p>In PHMA, new power transmission projects must be located within the 2-mile wide transmission line route in south-central and southwestern Wyoming or as close as technically feasible (i.e., within 0.5 mile) on either side of existing 115 kV or larger transmission lines or corridors creating a route no wider than 1 mile. These projects are exempt from the 5% disturbance threshold.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-LR-SUA-ST-029-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-031-Standard</p> <p>In priority habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would not have negative impacts on or benefit greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-032-Standard</p> <p>In PHMA, CHMA, and winter concentration areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would not have negative impacts on or benefit greater sage-grouse or their habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-GL-030-Guideline</p> <p>Authorization of new temporary meteorological towers should be restricted in priority habitat management areas and sagebrush focal areas within 2 miles of occupied greater sage-grouse leks, unless they are out of direct line of sight of an occupied lek.</p>	<p>GRSG-LR-SUA-GL-032-Guideline</p> <p>Authorization of new temporary meteorological towers should not be allowed in priority habitat management areas within 2 miles of occupied greater sage-grouse leks, unless they are out of direct line of sight of an occupied lek to reduce disturbance to breeding GRSG.</p>	<p>GRSG-LR-SUA-GL-033-Guideline</p> <p>Authorization of new temporary meteorological towers should not be allowed in PHMA within 2 miles of occupied greater sage-grouse leks, unless they are out of direct line of sight of an occupied lek to reduce disturbance to breeding GRSG.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-LR-SUA-GL-031-Guideline</p>	<p>GRSG-LR-SUA-GL-031-Guideline</p> <p>Delete</p>	<p>GRSG-LR-SUA-GL-031-Guideline</p> <p>Delete</p>	<p>Duplicative with GRSG-LR-SUA-ST-028-Standard</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>In priority habitat management areas and sagebrush focal areas, outside of existing designated corridors and rights-of-way, 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 the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>			
Land Ownership Adjustments			
<p>GRSG-LR-LOA-ST-032-Standard</p> <p>In priority and general management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-033-Standard</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-034-Standard</p> <p>In PHMA, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-LR-LOA-GL-033-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 5% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 5% cap. Discretionary activities that might result in disturbance</p>	<p>GRSG-LR-LOA-ST-034-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 5% of the total greater sage-grouse habitat within the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 5% threshold. Discretionary activities that might result in disturbance above 5% at the proposed project area would be</p>	<p>GRSG-LR-LOA-ST-035-Standard</p> <p>In PHMA and CHMA, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 5% of the total greater sage-grouse habitat within the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 5% threshold. Discretionary activities that might result in disturbance above 5% at the proposed project area would be prohibited unless</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>above 5% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 5% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in <u>no net habitat loss</u> at the <u>State-wide</u> scale. Within existing designated utility corridors, the 5% disturbance <u>threshold</u> may be exceeded at the project area scale if the site specific NEPA analysis indicates that <u>no net habitat loss</u> to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.</p>	<p>approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in no net habitat loss at the State-wide scale. Within existing designated utility corridors, the 5% disturbance threshold may be exceeded at the project area scale if the site specific NEPA analysis indicates that no net habitat loss to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.</p>	
Land Withdrawal			
<p>GRSG-LR-LW-GL-034-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-LW-GL-034-Guideline</p> <p>Delete</p>	<p>GRSG-LR-LW-GL-034-Guideline</p> <p>Delete</p>	<p>Deleted - Elimination of Withdrawal</p>
Wind Energy Development			

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-WS-GL-035-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, restrict authorization of wind utility-scale and/or commercial energy development except for on- site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>GRSG-WS-ST-035-Guideline</p> <p>In priority habitat management areas, restrict authorization of wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site) to contribute GRSG conservation.</p>	<p>GRSG-WS-ST-036-Guideline</p> <p>In PHMA, restrict authorization of wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site) to contribute GRSG conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p>
Livestock Grazing			
<p>GRSG-LG-DC-036-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired habitat conditions (Table 1).</p>	<p>GRSG-LG-MA-036-Management Approach</p> <p>In priority and general habitat management areas, livestock grazing is used as a tool to maintain or move towards desired habitat conditions.</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p>In greater sage-grouse HMA, livestock grazing may be used as a tool to maintain or move towards desired habitat conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification of Plan Content Definition</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>Grazing guidelines in Table 2 should be applied in each of the seasonal habitats in Table 2. If values in Table 2 cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. 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 greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of desired conditions for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter).</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>In greater sage-grouse HMA, if livestock grazing is determined to be a causal factor limiting achievement of desired conditions for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter).</p>	<p>Changing Livestock Grazing Guidelines</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-038-Management Approach</p> <p>In areas where domestic livestock grazing is authorized within priority and general sage-grouse habitat, managers may use the Habitat Assessment Framework in conjunction with rangeland monitoring information, site capability, and greater sage-grouse biological use data to assess habitat conditions at the appropriate times and locations relative to the greater sage-grouse habitat attributes of interest. Ecological Site Descriptions, site potential, and historic data will be used to determine whether or not the site is capable of producing the desired greater sage-grouse habitat. If greater sage-grouse habitat condition is deteriorated or trending away from desired conditions, then assess causal factors before prescribing changes to livestock grazing management.</p>	<p>GRSG-LG-MA-039-Management Approach</p> <p>In areas where domestic livestock grazing is authorized within greater sage-grouse HMA, managers may use the Habitat Assessment Framework in conjunction with rangeland monitoring information, site capability, and greater sage-grouse biological use data to assess habitat conditions at the appropriate times and locations relative to the greater sage-grouse habitat attributes of interest. Ecological Site Descriptions, site potential, and historic data will be used to determine whether or not the site is capable of producing the desired greater sage-grouse habitat. If greater sage-grouse habitat condition is deteriorated or trending away from desired conditions, then assess causal factors before prescribing changes to livestock grazing management. Refer to Cagney et al. (2010) when considering adjustments to livestock grazing management.</p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-LG-GL-038-Guideline</p> <p>Consistency with WY EO 2011-05</p>
<p>GRSG-LG-GL-038-Guideline</p> <p>On the Thunder Basin National Grassland, if 90% or more of the allotment falls within nesting or brood rearing habitat, 25% of the allotment would be exempted from the breeding/nesting residual perennial grass height guidelines in Table 2.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Delete</p>	<p>No longer required due to changes made to GRSG-LG-GL-038-Guideline</p>
<p>GRSG-LG-GL-039-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Delete</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Delete</p>	<p>Required by existing regulation or policy</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>			
<p>GRSG-LG-GL-040-Guideline</p> <p>Bedding sheep and locating camps within 0.6 miles from the perimeter of a lek during lekking (from March 1 to May 15) should be restricted.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking <u>(from March 1 to April 30) should be restricted to prevent disturbance of breeding GRSG.</u></p>	<p>GRSG-LG-GL-040-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance of breeding GRSG.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-GL-041-Guideline</p> <p>From March 15 through June 30, trailing livestock should be limited to existing trails. Specific routes and timeframes should be identified; existing trails should be used; and stopovers on occupied leks should be avoided. New trailing activities should be assessed to determine a route that will minimize impacts to the greater sage-grouse and its habitats. Where credible data based upon field analysis support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-LG-GL-GL-040-Guideline</p> <p>From March 15 through June 30, trailing livestock should be limited to existing trails. Specific routes and timeframes should be identified; existing trails should be used; and stopovers on occupied leks should be avoided. New trailing activities should be assessed to determine a route that will minimize impacts to the greater sage-grouse and its habitats. Where credible data based upon field analysis support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-LG-GL-GL-041-Guideline</p> <p>From March 15 through June 30, trailing livestock should be limited to existing trails. Specific routes and timeframes should be identified; existing trails should be used; and stopovers on occupied leks should be avoided. New trailing activities should be assessed to determine a route that will minimize impacts to the greater sage-grouse and its habitats. Where credible data based upon field analysis support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>No Change</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-LG-GL-042-Guideline</p> <p>Collision risk associated with existing fences within 1.2 miles of leks should be minimized through removal or modification (e.g. marking, laydown fences, or other design features).</p>	<p>GRSG-LG-GL-041-Guideline</p> <p>To minimize collision risk associated with fences, existing fences within 1.2 miles of leks should be modified through removal, marking, laydown, or other design features. New fencing within 0.6 miles of a lek would not be constructed March 15 through June 30, or on the lek itself.</p>	<p>GRSG-LG-GL-042-Guideline</p> <p>To reduce collision risk in PHMA, existing fences within 0.6 miles of occupied leks should be modified through removal, marking, laydown, or other design features. New fencing within 0.6 miles of a lek would not be constructed March 15 through June 30, or on the lek itself; new stretches of fence with high potential for collisions should be marked.</p>	<p>Consistency with the Wyoming Executive Order</p>
<p>GRSG-LG-GL-043-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, new permanent livestock facilities, except fences, should not be constructed within 0.6 miles from the perimeter of occupied leks. In general habitat management areas, new permanent livestock facilities should not be constructed within 0.25 miles of occupied leks.</p>	<p>GRSG-LG-GL-042-Guideline</p> <p>To prevent predation from perching raptors in priority habitat management areas, new permanent livestock facilities, should not be constructed within 0.6 miles from the perimeter of occupied leks. In general habitat management areas, new permanent livestock facilities should not be constructed within 0.25 miles of occupied leks.</p>	<p>GRSG-LG-GL-043-Guideline</p> <p>To prevent predation from perching raptors in PHMA and CHMA, new permanent livestock facilities, should not be constructed within 0.6 miles from the perimeter of occupied leks. In general habitat management areas, new permanent livestock facilities should not be constructed within 0.25 miles of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas Clarification</p>
<p>GRSG-LG-GL-044-Guideline</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 8.4 (Mineral Production), Management Area 3.63 (Black-footed Ferret Reintroduction Habitat), or other designated areas for short-grass species, livestock grazing should be managed to meet the objectives for that Management Area.</p>	<p>GRSG-LG-GL-043-Guideline</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 8.4 (Mineral Production), Management Area 3.63 (Black-footed Ferret Reintroduction Habitat), or other designated areas for short-grass species, livestock grazing should be managed to meet the objectives for that Management Area.</p>	<p>GRSG-LG-GL-044-Guideline</p> <p>On the Thunder Basin National Grassland, where GHMA overlaps with Management Area 8.4 (Mineral Production), Management Area 3.63 (Black-footed Ferret Reintroduction Habitat), or other designated areas for short-grass species, livestock grazing should be managed to meet the objectives for that Management Area.</p>	<p>No Change</p>
<p>Fire Management</p>			

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-FM-DC-045-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-DC-045-Desired Condition</p> <p>In greater sage-grouse HMA, sagebrush habitat is protected from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat is prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification of Plan Content Definition</p>
<p>GRSG-FM-ST-046-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when prescribed fire is used for fuels management or vegetation treatments, design the burn to move towards desired habitat conditions (Table 1). Restrict prescribed fire in areas of Wyoming big sagebrush, other xeric sagebrush species, where cheatgrass or other fire-invasive species occur, and/or within areas of less than 12-inch precipitation zones unless necessary for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>To maintain or improve existing habitat in priority and general habitat management areas, when prescribed fire is used for fuels management or vegetation treatments, design the burn to move towards desired habitat conditions. Avoid prescribed fire in areas where Wyoming big sagebrush, other xeric sagebrush species, cheatgrass or other fire-invasive species occur, unless beneficial to greater sage-grouse habitat consistent with desired conditions.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>To maintain or improve existing habitat in greater sage-grouse HMA, when prescribed fire is used for fuels management or vegetation treatments, design the burn to move towards desired habitat conditions. Avoid prescribed fire in areas where Wyoming big sagebrush, other xeric sagebrush species, cheatgrass or other fire-invasive species occur, unless beneficial to greater sage-grouse habitat consistent with desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Clarification of Plan Content Definition</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-FM-ST-047-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>In priority and general habitat management areas if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>In greater sage-grouse HMA, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Required by existing law, regulation, or policy</p>
<p>GRSG-FM-ST-048-Standard</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 3.63 (Black-footed Ferret Reintroduction Habitat) or other designated areas for short-grass species, allow prescribed fire to meet objectives for that Management Area.</p>	<p>GRSG-FM-ST-047-Standard</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 3.63 (Black-footed Ferret Reintroduction Habitat) or other designated areas for short-grass species, allow prescribed fire to meet objectives for that Management Area.</p>	<p>GRSG-FM-ST-048-Standard</p> <p>On the Thunder Basin National Grassland, where GHMA overlaps with Management Area 3.63 (Black-footed Ferret Reintroduction Habitat) or other designated areas for short-grass species, allow prescribed fire to meet objectives for that Management Area.</p>	<p>No Change</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available or consider using fire-resistant non-native species if analysis</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In priority and general habitat management areas when reseeding in fuel breaks, fire-resistant native plant species should be used if available or use fire-resistant non-native plants only if they would not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-GL-049-Guideline</p> <p>In greater sage-grouse HMA, when reseeding in fuel breaks, fire-resistant native plant species should be used if available or use fire-resistant non-native plants only if they would not degrade greater sage-grouse habitat in the long-term.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.			
<p>GRSG-FM-GL-050-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>Temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in greater sage-grouse HMA should be located in existing disturbance or unsuitable habitat. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited <u>to the extent practicable to achieve suppression objectives.</u></p>	<p>GRSG-FM-GL-051-Guideline</p> <p>In greater sage-grouse HMA, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, use fire management tactics and</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority and general habitat management areas, use fire management</p>	<p>GRSG-FM-GL-052-Guideline</p> <p>In greater sage-grouse HMA, use fire management tactics and strategies that seek to minimize loss of existing sagebrush</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.	tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.	habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.	Consistency with the 2012 Planning Rule
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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).</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>In priority and general habitat management areas, 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).</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>In greater sage-grouse HMA, do not approve prescribed fire prescriptions that result undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	Consistency with the 2012 Planning Rule
<p>GRSG-FM-GL-054-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-GL-054-Guideline</p> <p>In greater sage-grouse HMA, planned fuel-breaks should incorporate roads and natural fuel breaks to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, where practical and available, 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 beyond initial attack</p>	<p>GRSG-FM-ST-054-Standard</p> <p>In priority and general habitat management areas, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive</p>	<p>GRSG-FM-ST-055-Standard</p> <p>In greater sage-grouse HMA, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive and noxious plant species.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.	annual grasses and other invasive plant species and noxious weeds.		
<p>GRSG-FM-GL-056-Guideline</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System, WFDSS); local operating plans and resource advisor plans to be used during fire situation to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System, WFDSS); local operating plans and resource advisor plans to be used during fire situation to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Include unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System, WFDSS); use local operating plans and resource advisor plans during fire situation to inform management decisions and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-045-Desired Condition</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>Localized maps of greater sage-grouse HMA should be made available to fireline, dispatch, and fire support personnel.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-045-Desired Condition</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>In or near priority and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>In or near greater sage-grouse HMA, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
			Supports GRSG-FM-DC-045-Desired Condition
<p>GRSG-FM-GL-059-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-GL-059-Guideline</p> <p>On critical fire weather days, when allocation of resource positioning is being decided, protection of greater sage-grouse habitat should receive high consideration, along with other high values.</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-045-Desired Condition</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-059-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-060-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of greater sage-grouse HMA, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-045-Desired Condition</p>
<p>GRSG-FM-GL-061-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline</p>	<p>GRSG-FM-MA-060-Management Approach</p> <p>In priority and general habitat management areas consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or</p>	<p>GRSG-FM-GL-061-Guideline</p> <p>In greater sage-grouse HMA, fire retardant and mechanized equipment should only be used if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while</p>	<p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSG-FM-DC-045-Desired Condition</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.	fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.	determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.	
<p>GRSG-FM-GL-062-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-MA-061-Management Approach</p> <p>In priority and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires.</p>	<p>GRSG-FM-GL-062-Guideline</p> <p>In greater sage-grouse HMA, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires and minimize sagebrush loss.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Supports GRSF-FM-DC-045-Desired Condition</p>
<p>GRSG-FM-GL-063-Guideline</p> <p>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 or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-062-Guideline</p> <p>In priority habitat management areas, sagebrush removal or manipulation, including prescribed fire, should be avoided unless the removal strategically reduces the potential impacts from wildfire or supports the enhancement of habitat conditions for greater sage-grouse.</p>	<p>GRSG-FM-GL-063-Guideline</p> <p>In PHMA and CHMA and winter concentration areas, do not approve sagebrush removal or manipulation, including prescribed fire, unless the removal strategically reduces the potential impacts from wildfire or supports the enhancement of habitat conditions for greater sage-grouse.</p>	<p>Consistency with the 2012 Planning Rule</p>
Recreation			
<p>GRSG-R-DC-064-Desired Condition</p> <p>In priority habitat management areas and sagebrush focal areas, recreation activities are balanced with the ability of the land to</p>	<p>GRSG-R-DC-064-Desired Condition</p> <p>Delete</p>	<p>GRSG-R-DC-064-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.			
<p>GRSG-R-ST-065-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-063-Guideline</p> <p>In priority habitat management areas, do not authorize temporary recreation uses that result in loss of habitat or would have long-term negative impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-064-Guideline</p> <p>In PHMA, do not authorize temporary recreation uses that result in loss of habitat or would have long-term negative impact on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-066-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas habitat management areas, terms and conditions that protect and restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-MA-064-Management Approach</p> <p>In priority and general habitat management areas, terms and conditions that protect and restore greater sage-grouse 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 greater sage-grouse habitat.</p>	<p>GRSG-R-GL-065-Guideline</p> <p>In greater sage-grouse HMA, when authorizing new recreation special-use authorizations, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-R-GL-067-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails,</p>	<p>GRSG-R-GL-065-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use</p>	<p>GRSG-R-GL-066-Guideline</p> <p>In PHMA and CHMA, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to the greater sage-grouse or its habitat or the development is required for visitor safety.	authorizations for facilities and activities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.	authorizations for facilities and activities, should not be approved unless the development results in no net loss of greater sage-grouse habitat or the development is required for safety.	
Roads/Transportation			
<p>GRSG-RT-DC-068-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 15 to June 30) and wintering (from December 1 to March 15) periods; dates may be shifted by either 14 days before or after the above dates, but not both.</p>	<p>GRSG-RT-DC-066-Desired Condition</p> <p>In priority habitat management areas, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance from March 15 to June 30 within a 0.6 mile perimeter of an occupied lek where breeding, nesting, and early brood-rearing habitat is present. In Winter Concentration Areas as mapped by the State of Wyoming, there should be minimal disturbance from December 1 to March 15. Dates may be shifted by either 14 days before or after the above dates, but not both.</p>	<p>GRSG-RT-DC-067-Desired Condition</p> <p>In PHMA, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance from March 15 to June 30 within a 0.6 mile perimeter of an occupied lek where breeding, nesting, and early brood-rearing habitat is present. In Winter Concentration Areas as mapped by the State of Wyoming, there should be minimal disturbance from December 1 to March 15. Dates may be shifted by either 14 days before or after the above dates, but not both.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the Wyoming Executive Order</p>
<p>GRSG-RT-ST-069-Standard</p> <p>Restrict construction of new maintenance level 4 and 5 roads within 1.9 miles of the perimeter of occupied greater sage-grouse leks within priority habitat management areas and sagebrush focal areas unless construction allows decommissioning of an existing route that negatively affects the greater sage-grouse.</p>	<p>GRSG-RT-ST-067-Standard</p> <p>Do not construct new maintenance level 4 and 5 roads within 1.9 miles of the perimeter of occupied greater sage-grouse leks within priority habitat management areas unless construction allows decommissioning of an existing route that negatively affects the greater sage-grouse.</p>	<p>GRSG-RT-ST-068-Standard</p> <p>Do not construct new maintenance level 4 and 5 roads within 1.9 miles of the perimeter of occupied greater sage-grouse leks within PHMA and CHMA unless construction allows decommissioning of an existing route that negatively affects the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-RT-ST-070-Standard</p> <p>Do not allow any category of road construction within 0.6 miles from the perimeter of occupied leks in priority habitat management areas and sagebrush focal areas or 0.25 miles from the perimeter of occupied leks in general habitat management areas as described in GRSG-TDDD-ST-012 and 013-Standards.</p>	<p>GRSG-RT-ST-068-Standard</p> <p>Do not allow any category of road construction within 0.6 miles from the perimeter of occupied leks in priority habitat management areas or 0.25 miles from the perimeter of occupied leks in general habitat management areas as described in GRSG-TDDD-ST-012 and 013-Standards.</p>	<p>GRSG-RT-ST-069-Standard</p> <p>Do not allow any category of road construction within 0.6 miles from the perimeter of occupied leks in PHMA and CHMA or 0.25 miles from the perimeter of occupied leks in general habitat management areas as described in GRSG-TDDD-ST-012 and 013-Standards.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-RT-ST-071-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not allow improvements to existing routes that would change route category (level 1 through 5) or capacity unless the upgrading would have minimal impact on the greater sage-grouse; is necessary for motorist safety; or eliminates the need to construct a new road.</p>	<p>GRSG-RT-ST-069-Standard</p> <p>In priority habitat management areas, do not allow improvements to existing routes that would change route category (level 1 through 5) or capacity unless the upgrading would have minimal impact on the greater sage-grouse; is necessary for motorist safety; or eliminates the need to construct a new road.</p>	<p>GRSG-RT-ST-070-Standard</p> <p>In PHMA and CHMA, do not allow improvements to existing routes that would change route category (level 1 through 5) or capacity unless the upgrading would have minimal impact on the greater sage-grouse; is necessary for motorist safety; or eliminates the need to construct a new road.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-RT-ST-072-Standard</p> <p>If necessary to construct new roads and trails in priority or sagebrush focal areas for one of the reasons listed in GRSG-RT-ST-070-Standard or to access valid existing rights, limit construction to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.</p>	<p>GRSG-RT-ST-070-Standard</p> <p>If necessary to construct new roads and trails in priority habitat management areas to access valid existing rights, limit construction to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.</p>	<p>GRSG-RT-ST-071-Standard</p> <p>If necessary to construct new roads and trails in PHMA and CHMA and winter concentration areas, to access existing rights, limit construction to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-RT-ST-073-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not allow public motor vehicle</p>	<p>GRSG-RT-ST-071-Standard</p> <p>In priority and general habitat management areas, do not allow public motor vehicle use on temporary energy development roads.</p>	<p>GRSG-RT-ST-072-Standard</p> <p>In greater sage-grouse HMA, do not allow public motor vehicle use on temporary energy development roads.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
use on temporary energy development roads.			
<p>GRSG-RT-GL-074-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-072-Guideline</p> <p>In priority and general habitat management areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>GRSG-RT-GL-073-Guideline</p> <p>In greater sage-grouse HMA, do not authorize new roads and road realignments unless designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-RT-GL-075-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 perpendicular to ephemeral drainages and stream crossings, unless topography prevents doing so.</p>	<p>GRSG-RT-GL-073-Guideline</p> <p>In priority and general habitat management areas, 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 perpendicular to ephemeral drainages and stream crossings, unless topography prevents doing so.</p>	<p>GRSG-RT-GL-074-Guideline</p> <p>In PHMA, CHMA, and GHMA, do not authorize road construction within riparian areas and mesic meadows. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed perpendicular to ephemeral drainages and stream crossings, unless topography prevents doing so.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-RT-GL-076-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).</p>	<p>GRSG-RT-GL-076-Guideline</p> <p>Delete</p>	<p>GRSG-RT-GL-076-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-RT-GL-077-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dust abatement terms and</p>	<p>GRSG-RT-GL-074-Guideline</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-</p>	<p>GRSG-RT-GL-075-Guideline</p> <p>In greater sage-grouse HMA, dust abatement terms and conditions should be included in road-use authorizations when</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.	use authorizations when dust has the potential to affect the greater sage-grouse.	dust has the potential to affect the greater sage-grouse.	
<p>GRSG-RT-GL-078-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-RT-MA-075-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-RT-GL-076-Guideline</p> <p>In greater sage-grouse HMA, road and road-way maintenance activities should not increase the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
Minerals			
Fluid Minerals – Unleased			
<p>GRSG-M-FMUL-ST-079-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, new oil and gas leases may be offered consistent and subject to the leasing stipulations in the timing, distance, density, and disturbance direction in the Timing, Distance, Density and Disturbance section.</p>	<p>GRSG-M-FMUL-ST-076-Standard</p> <p>In priority habitat management areas, new oil and gas leases that may be offered must be consistent with and include leasing stipulations for direction in the Timing, Distance, Density, and Disturbance section.</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>In PHMA and CHMA and winter concentration areas, new oil and gas leases that may be offered must be consistent with and include leasing stipulations for direction in the Timing, Distance, Density, and Disturbance section.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-FMUL-ST-080-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, require geophysical</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>In priority habitat management areas, do not approve geophysical exploration</p>	<p>GRSG-M-FMUL-ST-078-Standard</p> <p>In PHMA and CHMA, do not approve geophysical exploration projects unless</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
exploration projects to be designed to minimize greater sage-grouse habitat fragmentation.	projects unless designed to minimize impacts to greater sage-grouse to the extent possible.	designed to minimize impacts to greater sage-grouse to the extent possible.	
		GRSG-M-FMUL-MA-079-Management Approach Appendix G has stipulations developed for when standards and guidelines call for specific restrictions on fluid minerals activities.	
Fluid Minerals – Leased			
GRSG-M-FML-ST-081-Standard In priority habitat management areas and sagebrush focal areas 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 disturbances and disruptive activities consistent with the rights granted in the lease.	GRSG-M-FML-ST-078-Standard In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require avoidance and minimization of surface disturbing and disruptive activities consistent with the rights granted in the lease.	GRSG-M-FML-ST-080-Standard In PHMA and CHMA and winter concentration areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases will require avoidance and minimization of surface disturbing and disruptive activities consistent with the rights granted in the lease.	Elimination of Sagebrush Focal Areas
GRSG-M-FML-ST-082-Standard In priority habitat management areas and sagebrush focal areas , 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 1 .	GRSG-M-FML-ST-079-Standard In priority habitat management areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat towards desired conditions.	GRSG-M-FML-ST-081-Standard In PHMA and CHMA and winter concentration areas, when facilities are no longer needed or leases are relinquished, reclamation plans must include terms and conditions to restore habitat towards desired conditions.	Elimination of Sagebrush Focal Areas
GRSG-M-FML-GL-083-Guideline Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-	GRSG-M-FML-MA-080-Management Approach Compressor stations should be located on portions of a lease that are non-habitat	GRSG-M-FML-GL-082-Guideline Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-	Consistency with the 2012 Planning Rule

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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-TDDD-ST-014-Standard.	and are not used by the greater sage-grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse 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-TDDD-ST-014-Standard.	grouse and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat.	
		<p>GRSG-M-FML-MA-083-Management Approach</p> <p>If locating compressor stations in non-habitat or areas that would have no impact on greater sage-grouse is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise consistent with GRSG-TDDD-GL-022-Guideline.</p>	<p>Supports GRSG-M-FML-GL-082-Guideline</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FML-ST-084-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-081-Management Approach</p> <p>In priority and general habitat management areas when authorizing development of fluid mineral resources, work with the operator to avoid and minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-084-Management Approach</p> <p>In greater sage-grouse HMA when authorizing development of fluid mineral resources, work with the operator to avoid and minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas on existing leases, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of</p>	<p>GRSG-M-FML-MA-082-Management Approach</p> <p>In priority and general habitat management areas on existing leases, operators should be encouraged to reduce disturbance to greater sage-grouse</p>	<p>GRSG-M-FML-MA-085-Management Approach</p> <p>In PHMA and GHMA on existing leases, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of approval of the</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.	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 greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.	Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to greater sage-grouse habitat, where appropriate and feasible and consistent with the rights granted to the lessee.	
<p>GRSG-M-FML-GL-086-Guideline</p> <p>On existing federal leases in priority and general habitat management areas and sagebrush focal areas, 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 the greater sage-grouse, based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-083-Guideline</p> <p>On existing federal leases in priority habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-086-Guideline</p> <p>On existing federal leases in PHMA and CHMA and winter concentration areas, when surface occupancy is requested due to existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-GL-087-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-MA-084-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-MA-087-Management Approach</p> <p>In greater sage-grouse HMA, 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 conservation measures, and design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>Fluid Minerals – Operations</p>			

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-085-Standard</p> <p>In priority habitat management areas, do not authorize <u>new</u> employee camps.</p>	<p>GRSG-M-FMO-ST-088-Standard</p> <p>In PHMA, CHMA, and winter concentration areas, do not authorize new employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits where feasible.</p>	<p>GRSG-M-FMO-GL-086-Guideline</p> <p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits where feasible.</p>	<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In PHMA and CHMA and winter concentration areas, closed-loop systems should be used for drilling operations with no reserve pits where practicable.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-MA-087-Management Approach</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In greater sage-grouse habitat management areas, during drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-091-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>GRSG-M-FMO-GL-091-Guideline</p> <p>In greater sage-grouse HMA, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
<p>aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.</p> <ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 			
	<p>GRSG-M-FMO-MA-089-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus:</p>	<p>GRSG-M-FMO-MA-092-Management Approach</p>	<p>Consistency with the 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	<ul style="list-style-type: none"> • 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 re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	<p>Utilize the following methods as appropriate to reduce to potential for West Nile virus:</p> <ul style="list-style-type: none"> • 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 re-inject produced water. 	<p>Supports GRSG-M-FMO-GL-091-Guideline</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
		<ul style="list-style-type: none"> Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
<p>GRSG-M-FMO-GL-092-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever practicable, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-093-Guideline</p> <p>In greater sage-grouse HMA, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever practicable, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
Coal Mines			
<p>GRSG-M-CM-ST-093-Standard</p> <p>Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to coal exploration and new coal lease projects.</p>	<p>GRSG-M-CM-ST-091-Standard</p> <p>For coal exploration licenses, in priority habitat management areas, prescribe stipulations as applicable for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-GL-15 through 24. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>GRSG-M-CM-ST-094-Standard</p> <p>For coal exploration licenses, in PHMA, prescribe conditions as applicable for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-GL-15 through 24. Prescribe operating conditions for exploration plans to reduce invasive and noxious species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Reworded to make applicable to regulatory process</p>
<p>GRSG-M-CM-ST-094-Standard</p> <p>Priority habitat management areas and sagebrush focal areas are essential habitat for maintaining the greater sage-grouse</p>	<p>GRSG-M-CM-ST-092-Standard</p> <p>Priority habitat management areas are essential habitat for maintaining the greater sage-grouse for purposes of the unsuitability criteria set forth at 43 CFR</p>	<p>GRSG-M-CM-ST-095-Standard</p> <p>PHMA and CHMA and winter concentration areas are essential habitat for maintaining the greater sage-grouse for purposes of the unsuitability criteria</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).	3461.5(o)(1). If consultation with the State occurs according to this criterion, apply GRSG-TDDD-GL-015 using the portion of the proposed lease that overlaps PHMA, when calculating disturbance, to determine if all or certain stipulated methods of coal mining would have long term impacts on GRSG.	set forth at 43 CFR 3461.5(o)(1). When consultation with the State occurs according to this criterion, apply GRSG-TDDD-GL-015 using the portion of the proposed lease that overlaps PHMA, when calculating disturbance, to determine if all or certain stipulated methods of coal mining would have long term impacts on GRSG.	Reworded to make applicable to regulatory process
<p>GRSG-M-CM-GL-095-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to conserve, enhance, and restore the greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CM-GL-093-Guideline</p> <p>When responding to the state regulatory authority regarding coal mine permitting actions that cause surface disturbance other than mining, in priority habitat management areas, forward applicable conditions for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-ST-15 through 24. During permitting actions and/or 5-year permit reviews involving lands that contain priority habitat management areas, for reclamation requirements, advise the state regulatory authority that the post-mining land use is wildlife habitat involving greater sage-grouse.</p>	<p>GRSG-M-CM-GL-096-Guideline</p> <p>When responding to the state regulatory authority regarding coal mine permitting actions that cause surface disturbance other than mining, in PHMA, forward applicable conditions for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-ST-15 through 27. During permitting actions and/or 5-year permit reviews involving lands that contain priority habitat management areas, for reclamation requirements, advise the state regulatory authority that the post-mining land use is wildlife habitat involving greater sage-grouse.</p>	Reworded to make applicable to regulatory process for readjustment and reclamation
Locatable Minerals			
<p>GRSG-M-LM-ST-096-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, only approve Plans of Operation with mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the Mining Law of 1872, as amended.</p>	<p>GRSG-M-LM-ST-094-Standard</p> <p>In priority habitat management areas, only approve Plans of Operation with appropriate avoidance, minimization, and compensatory mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining</p>	<p>GRSG-M-LM-ST-097-Standard</p> <p>In PHMA and CHMA and winter concentration areas, approve Plans of Operation with appropriate mitigation (avoidance and minimization) to protect the greater sage-grouse and its habitat, consistent with the rights granted by the Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	claimant as granted by the Mining Law of 1872, as amended.		
<p>GRSG-M-LM-ST-097-Standard</p> <p>The disturbance cap described in GRSG-TDDD-ST-022- Standard will not be applied to foreclose development of locatable minerals on unpatented claims located under the General Mining Act of 1872, as amended; the disturbance from locatable mining will be accounted for when determining the percent disturbance and whether the cap has been exceeded.</p>	<p>GRSG-M-LM-ST-095-Standard</p> <p>The disturbance thresholds described in GRSG-TDDD-GL-015- Guideline will not be applied to foreclose development of locatable minerals on unpatented claims located under the General Mining Act of 1872, as amended; the disturbance from locatable mining will be accounted for when determining the percent disturbance and whether the threshold has been exceeded.</p>	<p>GRSG-M-LM-ST-098-Standard</p> <p>The disturbance thresholds described in GRSG-TDDD-GL-016-Guideline will not be applied to restrict access to locatable minerals on unpatented claims located under the General Mining Law of 1872, as amended; the disturbance from locatable activities will be accounted for when determining the percent disturbance and whether the threshold has been exceeded.</p>	<p>Clarification</p>
Non-energy Leasable Minerals			
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, at the time of issuance of prospecting permits; exploration licenses and leases; or readjustment of leases for non-energy leasable minerals, the Forest Service should provide recommendations to the BLM for the protection of the greater sage-grouse and its habitats.</p>	<p>GRSG-M-NEL-MA-096-Management Approach</p> <p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend against, leasing in priority or general habitat management areas in established distances from leks. Consider disturbance thresholds when assessing</u></p>	<p>GRSG-M-NEL-GL-099-Guideline</p> <p>In PHMA and CHMA, include measures to restrict surface use, occupancy and seasonal activities for exploration with either recommendations or consent (as applicable) to the BLM regarding issuance of prospecting permits and exploration licenses.</p> <p>In PHMA and CHMA, where development would be by surface mining methods, consider potential impacts to sage-grouse habitat and appropriate stipulations (see standards and guidelines 15-27), and/or applying appropriate compensatory mitigation (as described in the Mitigation Framework) when assessing whether or not to consent to, or recommend leasing.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
	<p>whether or not to consent to, or recommend leasing.</p> <p>In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>In PHMA and CHMA where development would be by underground mining methods, include stipulations that restrict surface use, occupancy and seasonal activities with either recommendations or consent (where applicable) to the BLM regarding issuance of new leases and lease modifications.</p> <p>At lease readjustment or lease renewal, evaluate recommendations/stipulations to provide to the BLM to restrict surface use, occupancy and seasonal activities in PHMA and CHMA. Where existing leases either are, or will be, developed by surface mining methods, include recommendations/stipulations to reclaim disturbed lands to applicable greater sage-grouse habitat.</p>	
<p>GRSG-M-NEL-GL-099-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-097-Management Approach</p> <p>In priority and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>GRSG-M-NEL-GL-100-Guideline</p> <p>In PHMA and GHMA, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive and noxious species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore affected greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with the 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
<p>Mineral Materials</p>			
<p>GRSG-M-MM-ST-100-Standard</p>	<p>GRSG-M-MM-ST-098-Standard</p>	<p>GRSG-M-MM-ST-101-Standard</p>	<p>No Change</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming) DEIS	Proposed Action (Wyoming) FEIS	Issue/Clarification
Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to authorizations for mineral material sales and free use.	Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to authorizations for mineral material sales and free use.	Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to authorizations for mineral material sales and free use.	
<p>GRSG-M-MM-ST-101-Standard</p> <p>Permits for mineral material operations in priority, sagebrush focal, or general sage-grouse habitat management areas must include appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).</p>	<p>GRSG-M-MM-ST-099-Standard</p> <p>Permits for mineral material operations in priority or general sage-grouse habitat management areas must include appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions.</p>	<p>GRSG-M-MM-ST-102-Standard</p> <p>Permits for mineral material operations in PHMA and GHMA must include appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p>
Predators	Predators	Predators	Predators
<p>GRSG-PR-GL-102-Guideline</p> <p>Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.</p>	<p>GRSG-PR-MA-100-Management Approach</p> <p>Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.</p>	<p>GRSG-PR-MA-103-Management Approach</p> <p>Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.</p>	<p>Clarification of Plan Content Definition</p>

2.6 PREFERRED ALTERNATIVE

Forest Service regulations require the agency to identify a preferred alternative in the Draft EIS (40 CFR 1502.14). 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. The Forest Service has identified the Proposed Action as the preferred alternative in the FEIS.

It is important to note that the identification of a preferred alternative does not constitute a final decision, and there is no requirement that the preferred alternative identified in this FEIS be selected as the agency's decision in the ROD.

2.7 PLAN EVALUATION, MONITORING, AND ADAPTIVE MANAGEMENT

Plan evaluation is the process by which the plan and monitoring data are reviewed to determine if management objectives are being met and progress is being made toward meeting management goals and if management direction is sound. LMP evaluations determine if decisions are being implemented, if mitigation measures are satisfactory, if there are significant changes in the related plans of other entities, if there are new data of significance to the plan, and if decisions should be amended or revised.

Plan monitoring provides the information needed to determine if a change in plan components or content is needed and measures management effectiveness and progress toward achieving or maintaining desired conditions. The Forest Service would use LMP evaluations to determine if the plan amendment approved by the decision is still valid in light of new information and monitoring data. Evaluations would follow the process established by the Forest Service Land Management Planning Handbook (FSH 1909.12).

This FEIS also includes adaptive management strategies that can be found in the Appendices for each state. These appendices are for the Proposed Action and the State of Utah alternative.

CHAPTER 3 - Affected Environment

3.1 INTRODUCTION

The purpose of this chapter is to describe the existing biological, physical, and socioeconomic characteristics of the planning area, including human uses that could be affected by implementing the alternatives described in Chapter 2. The affected environment provides the context for assessing potential impacts described in Chapter 4. The resource topics included in this chapter reflect those in Table 1-2 as corresponding to an issue carried forward for detailed analysis in the 2015 Greater Sage-grouse Final Environmental Impact Statement (2015 GRSG FEIS).

The geographic extent of this environmental analysis is the same as that in the 2015 GRSG FEIS. The FS acknowledges that there have been changes to the landscape since 2015; however, due to the scale of this analysis covering 5.4 million acres of FS-administered lands, habitat monitoring data collected consistently across the range (including sagebrush availability, habitat degradation, and energy and mining density) indicate that the extent of these changes to the landscape are relatively minimal. For example, FS habitat monitoring data collected and analyzed annually at the biologically significant unit (BSU) scale, as outlined in the Greater Sage-Grouse Monitoring Framework (Appendix D of the 2015 GRSG ROD and LMPA), indicate that natural and human caused disturbances impacted less than one percent of PHMA range-wide from 2015 through 2017.

Management decisions and actions taken by the FS since publication of the 2015 GRSG FEIS and ROD and LMPA have been consistent with the ROD. The FS will continue to implement the decisions in the 2015 GRSG ROD and any decisions and authorizations that include reference to and content from the 2015 GRSG ROD, unless those decisions are amended.

Acreage figures and other numbers were approximated using geographic information systems (GIS) technology; they do not reflect exact measurements or precise calculations.

3.1.1 GREATER SAGE-GROUSE LITERATURE, 2015–2019

To inform the consideration of whether to amend some, all, or none of the 2015 Greater Sage-Grouse land management plans (LMPs), the BLM requested the USGS to develop an annotated bibliography of greater sage-grouse science published since January 2015 (Carter et al. 2018) and a report that synthesized and outlined the potential management implications of this new science (Hanser et al. 2018).

Following issuance of the 2015 Greater Sage-Grouse Plan Amendments, the scientific community has continued to improve the knowledge available to inform implementation of management actions and an overall understanding of Greater Sage-Grouse populations, their habitat requirements, and their response to human activity. The report discussed the science related to six major topics identified by an interagency team, which are summarized below:

- Multiscale habitat suitability and mapping tools
- Discrete human activities
- Diffuse activities
- Fire and invasive species
- Restoration effectiveness

- Population estimation and genetics

Multiscale Habitat Suitability and Mapping Tools

Greater sage-grouse habitat is analyzed at the broad, mid-, fine, and site scales. At the broad scale (range-wide) and mid-scale (population and sub-population) scales, higher resolution geospatial information allows for better understanding of habitat characteristics, which in turn improves modeling techniques. Advances in modeling and mapping techniques at these scales can help inform allocations and targeting of land management resources to benefit greater sage-grouse conservation. These tools and modelling output have in some cases produced improved maps that are reflected in proposed actions for some states; in other states they do not indicate a need for change in habitat management. The FS has described the process required to determine if changes are needed to habitat management areas boundaries and how to proceed in using an interagency method (Table 2-4).

At the fine scale (home ranges and seasonal habitats) and site scale (within seasonal habitats and daily use sites), the existing state of knowledge for greater sage-grouse habitat use has been described and synthesized (Connelly et al. 2000, 2011; Hagen et al. 2007; Stiver et al. 2015). This information was included in the Seasonal Habitat Desired Conditions for GRSG tables in the 2015 GRSG FEISs (USDI BLM and USDA FS 2015). The science developed since 2015 largely corroborates the knowledge prior to 2015 regarding greater sage-grouse habitat selection; namely that sage-grouse select large, relatively flat, intact sagebrush landscapes with very low human disturbance.

Specific to nesting and brood-rearing habitat, scientific literature published since 2015 demonstrates that there is not as strong a correlation between grass height and nest success as previously believed. This new information indicates a need to reevaluate guidelines from the 2015 GRSG ROD specific to grazing. Other site-scale vegetation measurements, especially sagebrush cover, remain important for sage-grouse habitat use and survival and are critical for identifying desired habitat conditions (Hanser et al. 2018).

Discrete Human Activities

The science developed since 2015 corroborates the knowledge prior to 2015 regarding the impact of discrete human activities on greater sage-grouse. New science suggests that strategies to limit surface disturbance may be successful at limiting range-wide population declines, but they are not expected to reverse the declines, particularly where active oil and gas operations are present (Hanser et al. 2018). This information may have relevance when considering the impact of changes to management actions designed to limit discrete disturbances.

Diffuse Activities

The science developed since 2015 does not appreciably change the knowledge prior to 2015 regarding diffuse activities (e.g., livestock grazing, predation, hunting, wild horses and burros, fences, recreation); however, some study authors questioned current assumptions, provided refinements, or corroborated existing understanding. This includes the following:

- Studies have shown that the effects of livestock grazing will vary with grazing intensity and season.
- Predation can be limiting to greater sage-grouse populations in areas with overabundant

predator numbers or degraded habitats. Application of predator control has potential short-term benefits in small, declining populations; however, reducing human subsidies may be necessary to generate long-term changes in raven numbers. This is because raven control has produced only short-term declines in local raven populations.

- Refinements to the current hunting seasons used by state wildlife agencies may minimize potential effects on greater sage-grouse populations, but none of the studies implicated current application of hunting seasons and timings as a plausible cause for greater sage-grouse declines.
- No new insights into the effects of wild horses and burros, fence collision, or recreational activity on greater sage-grouse have been developed (Hanser et al. 2018).

Fire and Invasive Species

Science since 2015 indicates that wildfire will continue to threaten greater sage-grouse through loss of available habitat, reductions in multiple vital rates (survival and recruitment), and declining population trends, especially in the western part of its range. The concepts of resilience after wildfire and resistance to invasion by nonnative annual grasses have been mapped across the sagebrush ecosystem using links to soil temperature and moisture regimes. These concepts inform restoration and management strategies and help prioritize application of greater sage-grouse management resources (Hanser et al. 2018).

Restoration Effectiveness

Since 2015, tools have been developed to help managers strategically place and design restoration treatments where they will have the greatest benefit for greater sage-grouse. New publications have also contributed to our understanding of success following treatments aimed at restoring habitat:

- Vegetation treatment methods and site potential can affect post-treatment vegetation characteristics.
- Conifer removal benefits greater sage-grouse through increased female survival and nest and brood success.
- Sagebrush manipulation treatments seem to benefit greater sage-grouse populations and brood-rearing habitat availability, but benefits may be limited to areas with high sagebrush cover at higher elevations and in mountain big sagebrush (*Artemisia tridentata vaseyana*) communities.
- Studies indicate that greater sage-grouse populations did not benefit from, or were negatively affected by, prescribed fire and mechanical sagebrush removal treatments (Hanser et. al. 2018).

Restoration activities occur mainly at the Ranger District project level, and the FS maintains the flexibility to incorporate new tools in the agency's project planning for restoration actions.

Population Estimation and Genetics

Although all lands and greater sage-grouse leks cannot be precisely surveyed, the accuracy of estimating greater sage-grouse populations has increased because of improved sampling procedures used to complete count surveys at leks and the development of correction factors for potential bias in lek count data. In addition, techniques to map greater sage-grouse genetic structure at multiple spatial scales has improved. This genetic data is used in statistical models to increase understanding of how landscape features and configuration affect gene flow. This understanding emphasizes the importance of maintaining connectivity between populations to ensure genetic diversity and distribution (Hanser et al. 2018). New information continues to affirm the FS’s understanding that greater sage-grouse is a species that selects for large, intact landscapes and habitat patches.

Other Literature

The Rocky Mountain Research Station developed a Science Framework that links to the Department of Interior’s Integrated Fire Management Strategy. Part 1 of this Framework provides an approach to prioritize areas for management and identify effective management strategies within sagebrush communities (Chambers et al. 2017). Part 2 of the Science Framework is intended to be used to facilitate implementation of management priorities and the use of management strategies that increase the resilience of the sagebrush ecosystem to disturbance and resistance to nonnative annual grasses (Crist et al. 2019). Both of these documents are intended to be used when implementing activities in greater sage-grouse habitat.

3.2 RESOURCES AFFECTED

Per Chapter 1 (see Section 1.5), the following resources may have potential effects based on the actions considered in Chapter 2. Table 3-1, below, provides the location of baseline information in the 2015 GRSG FEISs (BLM and FS 2015), and, where applicable, additional information contained in the Sagebrush Focal Area Withdrawal Draft EIS (BLM 2016).

Table 3-1. Resource topics carried forward for additional analysis.

Resource Topic	State	Location of Baseline Information in 2015 GRSG FEIS
Special Status Species- Greater Sage-Grouse (and Habitat)	CO	Chapter 3, Section 3.3, pages 3-33 to 3-81 (BLM and FS 2015)
	ID	Chapter 3, Section 3.5, pages 3-5 to 3-23 (BLM and FS 2015)
	NV	Chapter 3, Section 3.2, pages 3-3 to 3-41 (BLM and FS 2015)
	UT	Chapter 3, Section 3.3, pages 3-4 to 3-44 (BLM and FS 2015)
	WY	Chapter 3, Section 3.14, pages 3-232 to 3-337 (BLM and FS 2015)
	All	Chapter 3, Section 3.7, pages 3-139 to 3-180 (BLM 2016)
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 3, Section 3.5, page 3-92 to 3-109 (BLM and FS 2015)
	ID	Chapter 3, Section 3.3, page 3-23 to 3-41 (BLM and FS 2015)
	NV	Chapter 3, Section 3.3, page 3-41 to 3-57 (BLM and FS 2015)
	UT	Chapter 3, Section 3.8, page 3-64 to 3-99 (BLM and FS 2015)
	WY	Chapter 3, Section 3.16, page 3-356 to 3-403 (BLM and FS 2015)
	All	Chapter 3, Section 3.6, page 3-128 to 3-138 (BLM 2016)
Livestock Grazing (Range Management)	CO	Chapter 3, Section 3.12, page 3-159 to 3-167 (BLM and FS 2015)
	ID	Chapter 3, Section 3.8, page 3-65 to 3-71 (BLM and FS 2015)
	NV	Chapter 3, Section 3.8, page 3-93 to 3-101 (BLM and FS 2015)
	UT	Chapter 3, Section 3.8, page 3-64 to 3-999 (BLM and FS 2015)
	WY	Chapter 3, Section 3.7, page 3-74 to 3-97 (BLM and FS 2015)

Resource Topic	State	Location of Baseline Information in 2015 GRSG FEIS
Land Use and Realty (including Renewable Energy)	CO	Chapter 3, Section 3.4, page 3-81 to 3-92 (BLM and FS 2015)
	ID	Chapter 3, Section 3.11, page 3-84 to 3-98 (BLM and FS 2015)
	NV	Chapter 3, Section 3.11, page 3-110 to 3-121 (BLM and FS 2015) Chapter 3, Section 3.12, page 3-121 to 3-124 (BLM and FS 2015)
	UT	Chapter 3, Section 3.19, page 3-180 to 3-190 (BLM and FS 2015) Chapter 3, Section 3.20, page 3-190 to 3-199 (BLM and FS 2015)
	WY	Chapter 3, Section 3.5, page 3-50 to 3-71 (BLM and FS 2015)
Mineral and Energy Resources	CO	Chapter 3, Section 3.7, page 3-116 to 3-134 (BLM and FS 2015) Chapter 3, Section 3.8, page 3-134 to 3-138 (BLM and FS 2015) Chapter 3, Section 3.9, page 3-138 to 3-141 (BLM and FS 2015)
	ID	Chapter 3, Section 3.12, page 3-98 to 3-117 (BLM and FS 2015)
	NV	Chapter 3, Section 3.13, page 3-124 to 3-143 (BLM and FS 2015)
	UT	Chapter 3, Section 3.21, page 3-199 to 3-224 (BLM and FS 2015)
	WY	Chapter 3, Section 3.8, page 3-97 to 3-142 (BLM and FS 2015)
	All	Chapter 3, Section 3.4, page 3-2 to 3-8 (BLM 2016)
Comprehensive Travel Management (Transportation and Access Management)	CO	Chapter 3, section 3.10, page 3-141 to 3-149 (BLM and FS 2015)
	ID	Chapter 3, section 3.10, page 3-78 to 3-84 (BLM and FS 2015)
	NV	Chapter 3, section 3.10, page 3-104 to 3-110 (BLM and FS 2015)
	UT	Chapter 3, section 3.18, page 3-177 to 3-180 (BLM and FS 2015)
	WY	Chapter 3, section 3.15, page 3-337 to 3-356 (BLM and FS 2015)
Recreation	CO	Chapter 3, section 3.11, page 3-149 to 3-159 (BLM and FS 2015)
	ID	Chapter 3, section 3.9, page 3-71 to 3-78 (BLM and FS 2015)
	NV	Chapter 3, section 3.9, page 3-101 to 3-104 (BLM and FS 2015)
	UT	Chapter 3, section 3.17, page 3-171 to 3-177 (BLM and FS 2015)
	WY	Chapter 3, section 3.10, page 3-152 to 3-169 (BLM and FS 2015)
Riparian Areas and Wetlands and Water Resources	CO	Chapter 3, section 3.5, page 3-92 to 3-109 (BLM and FS 2015) Chapter 3, section 3.15, page 3-186 to 3-196 (BLM and FS 2015)
	ID	Chapter 3, Section 3.3, page 3-23 to 3-41 (BLM and FS 2015) Chapter 3, Section 3.15, page 3-139 to 3-143 (BLM and FS 2015)
	NV	Chapter 3, Section 3.4, page 3-58 to 3-61 (BLM and FS 2015) Chapter 3, Section 3.15, page 3-154 to 3-164 (BLM and FS 2015)
	UT	Chapter 3, Section 3.7, page 3-60 to 3-64 (BLM and FS 2015) Chapter 3, Section 3.8, page 3-64 to 3-99 (BLM and FS 2015)
	WY	Chapter 3, Section 3.18, page 3-415 to 3-449 (BLM and FS 2015)
Wildland Fire	CO	Chapter 3, Section 3.6, page 3-109 to 3-116 (BLM and FS 2015)
	ID	Chapter 3, Section 3.7, page 3-57 to 3-65 (BLM and FS 2015)
	NV	Chapter 3, Section 3.7, page 3-82 to 3-93 (BLM and FS 2015)
	UT	Chapter 3, Section 3.7, page 3-154 to 3-163 (BLM and FS 2015)
	WY	Chapter 3, Section 3.14, page 3-449 to 3-462 (BLM and FS 2015)

3.2.1 GREATER SAGE-GROUSE AND ITS HABITAT

The existing condition of greater sage-grouse in the planning area is described in the respective states' 2015 GRSG FEIS in the sections listed in Table 3-1 (Special Status Species- Greater Sage-Grouse and Habitat); therefore, except as otherwise expressly indicated by new or updated information contained in this section, the affected environment for greater sage-grouse described in the 2015 GRSG FEISs are hereby incorporated by reference.

Since 2015, the BLM and Forest Service have been implementing the greater sage-grouse conservation measures outlined in the 2015 GRSG FEIS. In addition to working with partners, such as state wildlife agencies and USGS, to monitor the status of greater sage-grouse populations in the planning area, the FS has also been tracking human disturbance, wildland fire, and reclamation/restoration efforts in greater sage-grouse habitat management areas.

GREATER SAGE-GROUSE POPULATION STATUS

Table 3-2 shows very broad greater sage-grouse population counts at a state-wide level. Research has not delineated population trends by land ownership or region, so habitat trends cannot be surmised by these numbers. Data are collected and reported by state wildlife agencies and due to differences in effort and reporting among states, are considered minimum counts of male birds on leks within each state.

Table 3-2. Greater sage-grouse counts by state.

State	2014	2015	2016	2017	2018
Colorado ¹	3,624	5,689	6,700	4,830	3,263
Idaho ²	11,921	13,058	16,078	13,103	11,452
Nevada ²	8,869	11,907	12,661	10,721	9,011
Utah ²	4,851	5,783	5,672	4,423	3,883
Wyoming ²	20,211	36,233	42,433	36,948	29,602

¹Northwest Colorado and North Park high male counts on leks

²Total state count, males on leks

3.2.2 VEGETATION

Existing conditions for vegetation, including invasive species, in the planning area are described in the 2015 GRSG FEISs (Table 3-1), as well as in the 2016 SFA Withdrawal DEIS (BLM 2016) (Table 3-1). This section identifies additions or changes which are applicable to the analysis and decision-making process.

Table 3-3 identifies the treatments implemented by the FS to restore or improve greater sage-grouse in 2016 and 2017. Habitat improvement projects include meadow restoration, installation of fence markers, spring exclosures, and road decommissioning.

Table 3-3. Acres of greater sage-grouse conservation actions.

State	Conifer Removal		Invasive Species Treatment		Habitat Improvement	
	2016	2017	2016	2017	2016	2017
Region 2						
Colorado ¹	-	-	-	-	-	-
Wyoming	-	170	4,816	1,443	8,436	10,430
Region 4						
Idaho	-	1,137	-	2,400	-	46,003
Nevada	6,793	7,936	-	5,570	16,999	116,605
Utah	-	-	--	-	6,947	15,897

¹All data from Medicine Bow-Routt NF shown under WY although some acres may be in CO
Data for 2018 unavailable at the time of FEIS publication

3.2.3 RIPARIAN AREAS AND WETLANDS AND WATER RESOURCES

The existing condition of riparian areas, wetlands, and water resources in the planning area is described in the 2015 GRSF FEISs (Table 3-1). Riparian areas, wetlands, and water resources remain generally as described in the 2015 GRSF FEISs and impacts on greater sage-grouse are also as disclosed. Authorized activities relevant to riparian areas, wetlands, and water resources within greater sage-grouse habitat include stream channel and meadow restoration projects, spring improvements, and riparian enclosure fences.

Since 2015, authorized activities relevant to riparian areas, wetlands, and water resources within greater sage-grouse habitat were consistent with the state-specific 2015 GRSF ROD and LMPA direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage riparian areas, wetlands, and water resources within greater sage-grouse habitat following the management direction in the 2015 decision.

3.2.4 LAND USE AND REALTY (INCLUDING RENEWABLE ENERGY)

The existing condition of land use and realty in the planning area is described in the 2015 GRSF FEISs (Table 3-1). The lands and realty program remains as described in the 2015 GRSF FEISs and the program's impacts on greater sage-grouse are also as disclosed. Land use authorization requests are customer driven. Within the planning area, most authorizations processed are for roads, electric distribution lines, small buried fiber optic lines, and communications sites. Major ROWs are those large-scale utility projects, such as for 500kV electric transmission, wind, and solar development. The FS has not received applications for large-scale utility projects in the planning area since 2015.

Since 2015, authorized lands and realty actions were consistent with the state-specific 2015 GRSF ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the Lands and Realty programs following the management direction in the 2015 decision.

3.2.5 HUMAN DISTURBANCE

Human disturbance was discussed in the 2015 GRSF FEISs (Colorado, Section 3.3.1; Idaho, Section 3.2.3; Nevada, Section 3.2.4; Utah, Section 3.3.6; Wyoming, Section 3.14.1). The BLM has tracked human disturbance in PHMAs from 2015 to 2017 (BLM Anthropogenic Disturbance Database), which is summarized in Table 3-4. Human disturbance has incrementally increased in all the states, with a total average of 0.89% of all PHMA annually.

Table 3-4. Broad scale estimates of anthropogenic disturbance¹.

State	BSU Acres	Acres of PHMA in BSU	Disturbance Estimate 2015		Disturbance Estimate 2016		Disturbance Estimate 2017	
			Acres of Disturbance on PHMA	% of PHMA	Acres of Disturbance on PHMA	% of PHMA	Acres of Disturbance on PHMA	% of PHMA
Colorado	3,831,829	2,363,984	36,255	1.62%	36,423	1.64%	36,856	1.66%
Idaho ²	8,504,747	8,504,757	42,688	0.52%	43,201	0.53%	43,386	0.53%
Nevada ³	34,915,581	11,958,171	62,560	0.47%	65,249	0.48%	65,553	0.48%

Utah	5,587,896	5,470,326	51,097	0.99%	53,517	1.02%	54,202	1.03%
Wyoming	14,968,085	14,376,688	105,599	0.74%	109,996	0.75%	111,925	0.77%
Total	67,808,138	42,673,926	298,199	0.87%	308,386	0.88%	311,922	0.89%

¹Estimates are cumulative over time

²IHMA included in Idaho totals

³California BSUs omitted

Data for 2018 unavailable at the time of FEIS publication

3.2.6 LIVESTOCK GRAZING

The existing condition of livestock grazing/range management in the planning area is described in the 2015 GRSG FEISs (Table 3-1). Livestock grazing/range management remains as described in the 2015 GRSG FEISs and the program’s impacts on greater sage-grouse are also as disclosed.

In the report that synthesized and outlined the potential management implications of new science (Hanser et al. 2018, Section 3.3.3), livestock grazing was included within the diffuse activities’ topics. Literature published and reviewed in Hanser et al. 2018 did not appreciably change knowledge of the effects of livestock grazing on sage-grouse. The studies questioned current assumptions, provided refinements, or corroborated existing understanding. Studies demonstrated that grazing impacts to sage-grouse habitat, resulting in a population level effect, is dependent on grazing intensity and timing relative to vegetation phenology and productivity.

During the development of the 2015 Greater Sage-Grouse Plan Amendments grazing guidelines, peer-reviewed research (Hagen et al. 2007, Holloran et al. 2005, Connelly et al. 2000, Doherty et al. 2014) indicated a relationship between perennial grass height and sage-grouse nest success. This research was foundational to the assumption that livestock grazing occurring within sage-grouse nesting habitat during the nesting season must be managed so that in breeding/nesting habitat, 7 inch droop height of perennial grass species is present at the end of the nesting period and in breeding/nesting habitat, 4 inch droop height of perennial grass species is present at the end of the growing season to ensure nest success; and in summer/brood-rearing habitat, 4 inch stubble height of for herbaceous riparian/mesic meadow vegetation is present at the end of the grazing period for brood-rearing success. The 2015 Greater Sage-Grouse Plan Amendments grazing guidelines were developed as conservation measures consistent with the findings of this research to reduce/ameliorate the threat of livestock grazing to nesting sage-grouse (USDA FS 2018e).

After the issuance of the RODs in September 2015, several greater sage-grouse researchers found there may be a significant and overlooked bias in research that linked greater sage-grouse nest success to grass height. Subsequent to 2015, there have been several publications that document the bias of plant phenology and timing of measurements of grass heights, which resulted in an over-estimate of the importance of grass height as a significant factor in nesting success (Gibson et al. 2016, Sage Grouse Initiative 2017, Smith et al. 2017a, Smith et al. 2017b).

Current literature also indicates that grazing forage use levels in mesic meadows and riparian areas, rather than stubble height, are consistent with either maintenance or improvement of sage-grouse brood-rearing habitat. Research suggests that moderate livestock grazing or less in mid to late summer,

fall, or winter is generally compatible with the maintenance of perennial grasses and forbs in sagebrush habitat (Pechanec and Stewart 1949, Mueggler 1950, Laycock and Conrad 1967, 1981, Gibbens and Fisser 1975, Miller et al. 1994, Bork et al. 1998). Moderate use has traditionally been defined as occurring within the range of 40–60% utilization by weight, however, generalizing a specific level of utilization that represents “proper use” can be difficult (Caldwell 1984). However, moderate utilization by livestock in spring, early summer, or winter is sustainable in non-degraded meadow and riparian areas within sagebrush habitat (Shaw 1992, Clary et al. 1996, Mosley et al. 1997). Moderate use equates to a 10-cm (4 inch) residual stubble height for most grasses and sedges and 5-cm (2 inch) for Kentucky bluegrass (Mosley et al. 1997, Clary and Leininger 2000).

In riparian brood-rearing habitat, sage-grouse prefer the lower vegetation (5–15 cm vs. 30–50 cm; Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing (Neel 1980, Evans 1986). Brood-rearing habitat may be enhanced by grazing practices that favor upland forb production (e.g., fall grazing) and prescribed light (< 40%) to moderate spring grazing can remove standing herbage and make forbs more accessible (Smith et al. 1979, Fulgham et al. 1982).

During 2016 and 2017, National Forests included in the 2015 Greater Sage-Grouse Plan Amendments began measuring droop and stubble heights. Sampling occurred on 2,965 sites. Where sampling occurred, data indicate that management of livestock grazing based on pre-2015 GRSG ROD direction included in Forest Plans, current term grazing permits, and project area grazing decisions provides for the stated droop height and stubble height provisions from the RODs (Tables 3-5, 3-6, 3-7, 3-8, 3-9) (USDA FS 2018e).

Many Forests were unable to gather sufficient data to report brood-rearing stubble height measurements. For most of these forests, pre-2015 GRSG ROD forest plan direction includes utilization standards within the range considered moderate use to promote desired conditions in riparian areas and mesic meadows (Table 3-7). The Humboldt-Toiyabe National Forest includes some allotments in which utilization standards exceed moderate use and proposes additional plan components to ensure movement toward desired conditions for brood-rearing habitat (Table 2-4).

Table 3-5. Droop and stubble height measurements.

State	Forest	Year	Nesting/Breeding (> 7" Droop Height) End Nesting Season		Nesting/Breeding (> 4" Droop Height) End Growing Season		Brood-rearing/Summer (4" Stubble Height)	
			Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches
UT	Ashley	2017	40	10	95	7	0	N/A
ID	Boise	2017	3	19	0	N/A	0	N/A
ID	Caribou-Targhee	2016/2017	2	12	75	12	9	10
ID	Curlew NG	2016/2017	98	16	245	12	9	6
WY	Bridger-Teton	2016/2017	113	11	61	11	7	10
UT	Dixie	2016/2017	165	10	220	10	0	N/A
UT	Fishlake	2016/2017	45	7	53	11	0	N/A

			Nesting/Breeding (> 7" Droop Height) End Nesting Season		Nesting/Breeding (> 4" Droop Height) End Growing Season		Brood-rearing/Summer (4" Stubble Height)	
State	Forest	Year	Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches
NV	Humboldt-Toiyabe	2016/2017	206	13	132	12	0	N/A
UT	Manti-La Sal	2016/2017	50	9	205	8	0	N/A
ID	Sawtooth	2017	6	14	34	14	144	5
ID	Salmon-Challis	2016/2017	23	11	169	12	232	5
WY/ CO	Medicine Bow-Routt	2016/2017	184	9	104	11	366	25
UT	Uinta-Wasatch-Cache	2016/2017	272	11	36	11	0	N/A
Total/Average			1,164	12	1,334	11	767	10

Table 3-6. Idaho LMP grazing use levels.

Forest/Grassland Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with GRSG Research
Boise National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> • 40% - Early season or season long • 50% late season 	<ul style="list-style-type: none"> ▪ Maximum 45% ▪ 4" hydric greenline – whichever comes first 	Yes
Revised Forest Plan for the Caribou National Forest (2003)	35% - 55%	4" - 6" SH ²	Yes
Revised Forest Plan, Targhee National Forest (1997)	35% - 55%	<ul style="list-style-type: none"> • 4" SH • 30% Browse³ 	Yes
Curlew National Grassland Plan (2002)	50% - 60%	Use levels established at site specific level or in AMP	Yes
Salmon National Forest Land and Resource Management Plan (1988)	<ul style="list-style-type: none"> ▪ 25% - 65% ▪ 3" - 6" SH 	<ul style="list-style-type: none"> ▪ 25% - 65% ▪ 3" - 6" SH 	Yes
Challis National Forest Land and Resource Management Plan (1987)	None (Defers to AMP)	<ul style="list-style-type: none"> ▪ Use levels established at site specific level or in AMP ▪ 50% Browse 	No
Sawtooth National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> • 40% early season or season long • 50% late season 	<ul style="list-style-type: none"> ▪ Maximum 45% or 4" hydric greenline whichever occurs first 	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² SH- stubble height

³ Annual utilization of current year's growth of woody vegetation

Table 3-7. Nevada LMP grazing use levels.

Forest Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with GRSG Research
Humboldt National Forest Land and Resource Management Plan (1986)	<ul style="list-style-type: none"> • 55% - 65% • 50% Browse 	<ul style="list-style-type: none"> ▪ 35% - 70% ▪ 35% Browse² 	Somewhat; 40-60% or moderate use is reported
Land and Resource Management Plan, Toiyabe National Forest (1986)	<ul style="list-style-type: none"> • 30% - 55% • 20-50% Browse 	<ul style="list-style-type: none"> ▪ 45% - 65% ▪ 20-35% Browse 	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² Annual utilization of current year's growth of woody vegetation

Table 3-8. Utah LMP grazing use levels.

Forest Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with GRSG Research
Ashley National Forest Land and Resource Management Plan (1986)	None (Defers to AMP)	50% Browse ²	Not in Forest Plan, but included in the Allotment Management Plans*
Land and Resource Management Plan for the Dixie National Forest (1986)	50% - 60%	<ul style="list-style-type: none"> ▪ 50% - 60% ▪ 50% Browse 	Yes
Land and Resource Management Plan for the Dixie National Forest (1986)	40% - 60%	<ul style="list-style-type: none"> ▪ 1.5" – 6" SH³ ▪ 40% - 50% Browse 	Yes
Land and Resource Management Plan, Manti-La Sal (1986)	40% - 65%	<ul style="list-style-type: none"> ▪ 30% - 60% ▪ 4" - 5" SH 	Yes
Sawtooth National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> • 40% -early season or season long • 50% late season 	<ul style="list-style-type: none"> ▪ Maximum 45% or 4" hydric greenline, whichever comes first 	Yes
Land and Resource Management Plan, Uinta National Forest (2003)	<ul style="list-style-type: none"> ▪ 40% - 60% ▪ 6" - 7" SH⁴ 	<ul style="list-style-type: none"> ▪ 35% - 65% ▪ 2" - 6" SH ▪ 6" - 7" SH⁴ ▪ 35% - 50% Browse 	Yes
Revised Forest Plan, Wasatch-Cache National Forest (2003)	<ul style="list-style-type: none"> ▪ 50% - 60% ▪ 50% Browse 	<ul style="list-style-type: none"> ▪ 30% - 60% ▪ 3" - 5" SH ▪ 50% Browse 	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² Annual utilization of current year's growth of woody vegetation

³ SH - stubble height

⁴ Applies to greater sage-grouse breeding habitat through June 15 in the Vernon and Strawberry Reservoir Management Areas respectively.

Table 3-9. Wyoming and Northwest Colorado LMP grazing use levels.

Forest or Grassland Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with GRSG Research
Medicine Bow National Forest Revised Land and Resource Management Plan (2003)	0-55%	SH: 3-6"	Yes
Land and Resource Management Plan for the Thunder Basin National Grassland (2001)	Vegetation is managed by seral and structural objectives for each Management area within each Geographic Area.		Yes (specific MA direction included below)
Routt National Forest Revised Land and Resource Management Plan (1997)	0-55%	SH: 4-6"	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class). Seral and Structure objectives vary by the Geographic Area.

3.2.7 WILDLAND FIRE

The wildland fire threat and impacts on greater sage-grouse are disclosed in the 2015 GRSG FEISs (Table 3-1). From 2015 to 2018 there have been additional large-scale wildfires within the decision area (Table 3-10). These wildfires burned approximately 4 million acres of greater sage-grouse PHMA, GHMA, IHMA, and OHMA range-wide. Of those acres, approximately 278,000 acres were within the FS planning area.

Table 3-10. Acres of GRSG habitat burned by wildfire.

State	All Agencies 2015	All Agencies 2016	USFS 2016	All Agencies 2017	USFS 2017	All Agencies 2018	USFS 2018
Colorado	3,359	3,215	0	27,780	0	44,487	759
Idaho	260,931	104,849	176	251,443	1,064	503,875	28,175
Nevada	12,233	215,073	3	967,324	4,056	1,038,490	161,788
Utah	377	33,269	4,077	93,295	35,164	142,765	8,388
Wyoming	20,777	55,152	2,138	69,410	0	124,957	16,185
TOTAL	297,677	411,558	-	1,409,253	-	1,854,574	-
Forest Service	16,121	-	6,394	-	40,284	-	215,295

(NIFC 2019: https://www.nifc.gov/fireandsagegrouse/docs/SG_SMA_Jurisdictional.pdf)

3.2.8 RECREATION

The existing condition of recreation in the planning area is described in the 2015 GRSG FEISs (Table 3-1). The recreation program remains as described in the 2015 GRSG FEISs and the program's impacts on greater sage-grouse are also as disclosed. Within the planning area authorized recreation uses included outfitter and guide permits, recreation site infrastructure, and special recreation use permits (such as races).

Since 2015, authorized recreation uses were consistent with the state-specific 2015 GRSG ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the recreation programs following the management direction in the 2015 GRSG RODs and LMPAs.

3.2.9 COMPREHENSIVE TRAVEL MANAGEMENT

The existing condition of travel management in the planning area is described in the 2015 GRSG FEISs (Table 3-1). Travel management remains as described in the 2015 GRSG FEISs and impacts on greater sage-grouse are also as disclosed. Within the planning area, authorized activities regarding travel management include road reconstruction, trail improvements, and unauthorized route closures.

Since 2015, authorized travel management activities were consistent with the state-specific 2015 GRSG ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage Travel Management following the direction in the 2015 decision.

3.2.10 MINERAL AND ENERGY RESOURCES

The existing condition of mineral and energy resources in the planning area is described in the 2015 GRSG FEISs (Table 3-1). The Mineral and Energy Resources program remains as described in the 2015 GRSG FEISs and the program's impacts on greater sage-grouse are also as disclosed. Within the planning area authorized mineral and energy resource projects included coal lease (permit only, activity not permitted), gravel pit reauthorization, quarry expansion, and oil and gas leasing (no lease alternative selected).

Since 2015, authorized mineral and recreation resource projects have been consistent with state-specific 2015 GRSG ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the Mineral and Energy Resource programs following the management direction in the 2015 decision.

No economically viable coal resources have been discovered in Idaho. As there is no development potential in Idaho, the lands are determined to be unsuitable for leasing. Impacts to greater sage-grouse were not analyzed in the 2015 GRSG FEIS and will not be analyzed in this FEIS (Table 3-1, Section 3.12 Idaho).

3.3 RESOURCES NOT CARRIED FORWARD FOR ANALYSIS

The following resources and resource uses analyzed in the 2015 GRSG FEIS were reviewed to determine if they could have potentially significant effects based on the actions considered in Chapter 2. The changes proposed in the action alternative would not substantially alter management direction or result in different outcomes for the resources listed below. Because of this, no additional analysis was completed for the resources shown in Table 3-11, below; therefore, no new information on affected environment is provided.

References to Wild Horse and Burros are removed from the Proposed Action in Idaho because there are no herd management areas on FS lands in Idaho.

Table 3-11. Resources and resource uses not carried forward for analysis.

Air Quality	Social and Economic Conditions and Environmental Justice
Climate Change	Soil Resources
Cultural Resources	Soundscapes
Fish, Wildlife, and Special Status Species	Special Designations
Forest and Woodland Products	Tribal Interests

Paleontological Resources
Roadless Areas

Visual Resources
Wild Horses and Burros

CHAPTER 4. Environmental Consequences

4.1 INTRODUCTION

This chapter presents the anticipated direct, indirect, and cumulative impacts on the human and natural environment that may be caused by implementing the alternatives described in Chapter 2. Discussions of environmental consequences in this chapter allow a reasonable prediction of consequences. However, this document does not describe every environmental process or condition. Chapter 4 also describes to decision-makers and the public how the environment could change if either of the alternatives were implemented. This chapter is organized by topic, based on the affected resources identified in Chapters 1 and 3. Only those issues listed in Table 1-2 were carried forward for analysis.

Impact analysis is a cause-and-effect process. Discussions of potential effects draw on existing analysis included in the 2015 GRSG RODs and FEISs, resource reports and related information, literature reviews, and other sources as indicated. Impact analysis is also based on information provided by experts in the Forest Service, other agencies, cooperating agencies, interest groups, and concerned citizens.

This Final Environmental Impact Statement (FEIS) is a programmatic document. It discloses the environmental consequences on a large scale, at the planning level. This is in contrast to analyses conducted for site-specific projects. The FEIS presents a programmatic action at the Forest and Grassland level of analysis, but does not predict what will happen each time the standards and guidelines are implemented. Environmental consequences of individual, site-specific projects on each of the Forests or Grasslands are not described. The environmental effects of individual projects will depend on the implementation of each project, the environmental conditions at each project location, and the application of the standards and guidelines in each case.

The baseline used for the impact analysis is the current condition or situation, as described in Chapter 3. Impacts on resources and resource uses are analyzed and discussed in detail, commensurate with resource issues and concerns identified through the process. At times, impacts are described in qualitative terms or using ranges of potential impacts.

4.2 USE OF BEST AVAILABLE SCIENTIFIC INFORMATION

The 2012 planning rule, as amended, requires the responsible official to use the best available scientific information to inform the planning process for developing, amending, or revising a forest plan, including plan components (36 CFR 219.3 and 219.14(a)(3)). The plan components developed for the Forests and Grasslands were based on the best available scientific information and analyses therein. New best available science published since the 2015 GRSG RODs and LMPAs has been used by resource specialists to develop the plan components and inform this FEIS. This information includes material that was readily available from public sources (libraries, research institutions, scientific journals, and online literature). It also includes information obtained from other sources, such as participation and attendance at scientific conferences, scientific knowledge from local experts, findings from ongoing research projects, workshops and collaborations, professional knowledge and experience, and information received during public participation periods. Resource specialists considered what is most accurate, reliable, and relevant in their use of the best available scientific information. The best available scientific information includes the publications and other sources listed in the Appendix H and provided in the project record. Cooperation

and data shared between Local, State, and Federal agencies and tribes described in Chapter 1 also contributed to the best available scientific information. Information that was used was applied to the issues considered and is described under each section, where applicable.

4.3 ANALYTICAL ASSUMPTIONS

Several overarching assumptions have been made to facilitate analysis of project impacts. These assumptions set analytical constraints and provide reasonably foreseeable projected levels of development that would occur in the planning area during the planning period. These assumptions should not be interpreted as constraining or redefining the management objectives and actions proposed for each alternative, as described in Chapter 2.

The following general assumptions apply to all resource categories; any specific resource assumptions are provided in the methods of analysis section for that resource:

- Forest Service budget directly affects the level of activities and outputs that may occur when a forest plan is implemented. Budgets are expected to remain flat or decrease in the future. Objectives in the forest plan are based on the assumption that there will not be a significant increase to current budget levels. To analyze effects without consideration of expected budgets would be a misrepresentation of expected outcomes.
- Project-level actions necessary to execute the LMP-level decisions in this FEIS would be subject to further environmental review, including under NEPA.
- Direct and indirect impacts of implementing the FEIS would primarily occur on public lands administered by the Forest Service in the planning area.
- The discussion of impacts is based on best available scientific information and data as described in Section 4.2. Knowledge of the planning area and decision area and professional judgment, based on observation and analysis of conditions and responses in similar areas, are used for environmental impacts where data are limited.
- Restrictions (such as siting, design, and mitigation measures) would apply, where appropriate, to surface-disturbing activities associated with land use authorizations and permits issued on Forest Service administered lands and federal mineral estate.
- GIS data have been used in developing acreage calculations and to generate the figures in this FEIS. Calculations depend on the quality and availability of data. Acreage figures and other numbers are approximate projections for comparison and analysis only; readers should not infer that they reflect exact measurements or precise calculations. In the absence of quantitative data, best professional judgment was used. Impacts were sometimes described using ranges of potential impacts, or they were described qualitatively, when appropriate.

4.4 IMPACTS FROM NO ACTION

The impacts of the No Action Alternative, or current management, of this LMPA were analyzed as Alternatives in the 2015 GRSG FEIS. The impacts of sagebrush focal area (SFA) withdrawals were analyzed in the Sagebrush Focal Area Withdrawal DEIS (BLM 2016). The Forest Service has reviewed new

information to verify that the analysis in the 2015 GRSG FEISs remains sound; therefore, impacts from implementing the No Action Alternative are substantially the same as those analyzed the 2015 GRSG FEISs. The Forest Service is tiering to the previous analysis, and Table 4-1 shows where the analysis of impacts of the No Action Alternative can be found in the 2015 GRSG FEISs.

Table 4-1. Environmental consequences for the No Action Alternative incorporated by reference.

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
Air Quality	CO	Chapter 4, Air Quality Section 4.18.3, page 4-468
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Air Quality Section 4.2 (Air Quality Impacts), pages 4-7 to 4-57 Chapter 4, Air Quality Section 4.2.4 (Air Quality Impacts associated with Oil and Gas Development), pages 4-56 to 4-57 Chapter 4, Air Quality Section 4.2.5 (Air Quality Impacts associated with Non-Oil and Gas Development Activities), page 4-57
	UT	Chapter 4, Air Quality Section 4.4, Alternatives Analysis Section 4.4.2, pages 4-136 to 4-137
	WY	Chapter 4, Air Quality Section 4.2, pages 4-5 to 4-58 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-488 to 4-490
	Cultural Resources	CO
ID		Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
NV		Chapter 4, Introduction Section 4.1, pages 4-2; See Tribal Interests
UT		Chapter 4, Cultural Resources Section 4.12, Alternatives Analysis Section 4.12.2, pages 4-200 to 4-202
WY		Chapter 4, Cultural Resources Section 4.3, pages 4-58 to 4-67 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-490 to 4-491
Tribal Interests (including Native American Religious Concerns)	CO	Chapter 4, Cultural Resources Section 4.23.4, pages 4-510 to 4-514; 4-533 to 4-536; 4-544 to 4-549; 4-551 to 4-553
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Tribal Interests (including Native American Religious Concerns) Section 4.19, Chapter 4, Impacts Common to All Alternatives Section 4.19.3, pages 4-370 to 4-372 Chapter 4, Alternative D Section 4.19.7, pages 4-376 to 4-378 Chapter 4, Proposed Plan Section 4.19.10, pages 4-380 to 4-382
	UT	Chapter 4, Tribal Interests Section 4.24, pages 4-404 to 4-407
Special Status Species - Greater Sage-grouse (and Habitat)	CO	Chapter 4, Special Status Species, Section 4.5.2, page 4-109
	ID	Chapter 4, Greater Sage-grouse and Habitat Section 4.2, Chapter 4, Impacts Common to All Alternatives Section 4.2.3, pages 4-20 to 4-31 Chapter 4, Alternatives D and E Sections 4.2.8 and 4.2.9, pages 4-65 to 4-77 Chapter 4, Proposed Plan Section 4.2.1, pages 4-80 to 4-91
	NV	Chapter 4, Greater Sage-grouse and Habitat Section 4.4, Chapter 4, Impacts Common to All Alternatives Section 4.4.3, pages 4-20 to 4-21 Chapter 4, Alternative D Section 4.4.7, pages 4-37 to 4-42 Chapter 4, Proposed Plan Section 4.4.10, pages 4-51 to 4-60
	UT	Chapter 4, Greater Sage-grouse and Habitat Section 4.3, Chapter 4, Alternative D Section 4.3.5, pages 4-81 to 4-97 Chapter 4, Proposed Plan Section 4.3.7, pages 4-113 to 4-135

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
	ID, NV, UT, WY	Chapter 4, Wildlife and Special Status Species Section 4.5.5, pages 4-92 to 4-96; <i>Cumulative Wildlife Impacts Section 4.5.9, pages 4-105 to 4-107 (BLM 2016)</i>
Other Special Status Species	CO	Chapter 4, Special Status Terrestrial Wildlife Section 4.5.3, Pages 4-109 to 4-123; 4-130 to 4-131 Chapter 4, Special Status Plants Section 4.5.3, pages 4-131 to 4-142; 4-178
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Special Status Species Section 4.7, pages 4-148 to 4-149
	UT	Chapter 4, Other Special Status Species Section 4.9, Alternatives Analysis Section 4.9.2, pages 4-172 to 4-183
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
Soil	CO	Chapter 4, Soil and Water Resources Section 4.17.4, pages 4-445 to 4-446
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Vegetation and Soils Section 4.5, Chapter 4, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Chapter 4, Alternative D Section 4.5.7, pages 4-37 to 4-42
	UT	Chapter 4, Soil Resources Section 4.6, Chapter 4, Alternatives Analysis Section 4.6.2, pages 4-147 to 4-151
	WY	Chapter 4, Soils Section 4.12, pages 4-220 to 4-241 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-496 to 4-497
Riparian Areas and Wetlands and Water Resources	CO	Chapter 4, Soil and Water Resources Section 4.17.4, pages 4-445 to 4-446
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Water Resources Section 4.18, Chapter 4, Impacts Common to All Alternatives Section 4.18.3, pages 4-344 to 4-348 Chapter 4, Alternative D Section 4.18.7, pages 4-356 to 4-360 Chapter 4, Proposed Plan Section 4.6.10, pages 4-136 to 4-148 Chapter 4, Proposed Plan Section 4.18.10, pages 4-365 to 4-369
	UT	Chapter 4, Water Resources Section 4.7, Alternatives Analysis Section 4.7.2, pages 4-151 to 4-153
	WY	Chapter 4, Watershed and Water Quality Section 4.18, pages 4-374 to 4-396 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505 to 4-506
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 4, Vegetation Section 4.7.4, page 4-210
	ID	Chapter 4, Vegetation Section 4.3, Chapter 4, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98 Chapter 4, Alternatives D and E Sections 4.3.7 and 4.3.8, pages 4-131 to 4-135 Chapter 4, Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Vegetation and Soils Section 4.5, Chapter 4, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Chapter 4, Alternative D Section 4.5.7, pages 4-37 to 4-42 Chapter 4, Proposed Plan Section 4.5.10, pages 4-91 to 4-98

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	UT	Chapter 4, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 4.8, Chapter 4, Alternatives D Section 4.8.5, pages 4-164 to 4-167 Chapter 4, Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Forestry Section 4.4, pages 4-67 to 4-70 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, page 4-491 Chapter 4, Vegetation Section 4.16, pages 4-352 to 4-365 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-504 to 4-505
	ID, NV, UT, WY	<i>Chapter 4, Vegetation, including Special Status Plants, Section 4.4.5, pages 4-73 to 4-75; Cumulative Vegetation Impacts, Section 4.4.9, pages 4-81 to 4-82 (BLM 2016)</i>
Fisheries and Wildlife	CO	Chapter 4, Terrestrial Wildlife, Section 4.3.2, pages 4-48 to 4-49; Chapter 4, Aquatic Wildlife, including Special Status Fish and Other Aquatic Species, Section 4.4.3, page 4-74
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Introduction Section 4.1, page 4-2; Also see Riparian Areas and Wetlands and Water Resources
	UT	Chapter 4, Fish and Wildlife Section 4.10, Chapter 4, Alternatives Analysis Section 4.10.2, pages 4-184 to 4-195
	WY	Chapter 4, Wildlife and Fisheries Section 4.21, pages 4-418 to 4-464 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507 to 4-508
Wild Horse and Burros	CO	Chapter 4, Wild Horse Management Section 4.15.4, page 4-374-375
	ID	Chapter 4, Wild Horse and Burro Management Section 4.4, Chapter 4, Impacts Common to All Alternatives Section 4.4.3, pages 4-142 Chapter 4, Alternatives D and E Sections 4.2.7 and 4.4.8, pages 4-131 to 4-135
	NV	Chapter 4, Wild Horse and Burros Section 4.8, Chapter 4, Impacts Common to All Alternatives Section 4.8.3, pages 4-151 to 4-152 Chapter 4, Alternative D Section 4.8.7, pages 4-156 to 4-158 Chapter 4, Proposed Plan Section 4.8.10, pages 4-162 to 4-165
	UT	Chapter 4, Wild Horse and Burros Section 4.11, Chapter 4, Alternatives Analysis Section 4.11.2, pages 4-196 to 4-199
	WY	Chapter 4, Wild Horses Section 4.19, pages 4-396 to 4-408 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-506 to 4-507
Paleontological Resources	CO	Chapter 4, Paleontological Resources Section 4.24.4, pages 4-584 to 4-585
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Incomplete or Unavailable Information Section 4.3.2, page 4-6
	WY	Chapter 4, Paleontology Section 4.9, pages 4-118 to 4-127 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494
Visual Resources	CO	Chapter 4, Visual Resources Section 4.20.4, page 4-491
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Introduction Section 4.1, page 4-2
	UT	Chapter 4, Visual Resources Section 4.13,

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
		Chapter 4, Alternatives Analysis Section 4.13.2, pages 4-203 to 4-205
	WY	Chapter 4, Visual Resources Section 4.17, pages 4-365 to 4-374 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505
Wildland Fire and Fuel's Management	CO	Chapter 4, Wildland Fire Ecology and Management Section 4.8.4, pages 4-211 to 4-213; 4-231
	ID	Chapter 4, Wildland Fire Management Section 4.5, Chapter 4, Impacts Common to All Alternatives Section 4.5.3, pages 4-157 to 4-159 Chapter 4, Alternatives D and E Sections 4.5.7 and 4.5.8, pages 4-164 to 4-168 Chapter 4, Proposed Plan Section 4.5.10, pages 4-170 to 4-173
	NV	Chapter 4, Wildland Fire and Fire Management Section 4.9, Chapter 4, Alternative D Section 4.9.6, pages 4-180 to 4-186 Chapter 4, Proposed Plan Section 4.9.9, pages 4-195 to 4-201
	UT	Chapter 4, Wildland Fire Management Section 4.14, Chapter 4, Alternative D Section 4.14.5, pages 4-214 to 4-216 Chapter 4, Proposed Plan Section 4.14.7, pages 4-218 to 4-221
	WY	Chapter 4, Wildland Fire and Fuels Section 4.20, pages 4-408 to 4-418 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507; 4-547 to 4-548; 4-571 to 4-572
Lands with Wilderness Characteristics	CO	Chapter 4, Lands with Wilderness Characteristics Section 4.21.4, page 4-504
	ID	Chapter 4, Lands with Wilderness Characteristics and Roadless Areas Section 4.14, Chapter 4, Impacts Common to All Alternatives Section 4.14.3, pages 4-279 Chapter 4, Alternatives D and E Sections 4.14.7 and 4.14.8, pages 4-285 to 4-287
	NV	Chapter 4, Lands with Wilderness Characteristics Section 4.14, Chapter 4, Impacts Common to All Alternatives Section 4.16.3, pages 4-328 to 4-329 Chapter 4, Alternative D Section 4.16.7, pages 4-331 Chapter 4, Proposed Plan Section 4.16.10, pages 4-333 to page 4-334
	UT	Chapter 4, Wilderness Characteristics Section 4.15, Chapter 4, Alternatives Analysis Section 4.15.2, pages 4-222 to 4-227
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-81 to 4-89
Roadless Areas	ID	Chapter 4, Lands with Wilderness Characteristics and Roadless Areas Section 4.14, Chapter 4, Impacts Common to All Alternatives Section 4.14.3, pages 4-279 Chapter 4, Alternatives D and E Sections 4.14.7 and 4.14.8, pages 4-285 to 4-287
Special Designations	CO	Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.16.1, pages 4-391 to 4-393 Chapter 4, Wilderness Study Areas Section 4.16.2, pages 4-404 to 4-405 Chapter 4, Wild and Scenic Rivers Section 4.16.3, pages 4-413 to 4-414 Chapter 4, National Trails and Byways Section 4.16.4, pages 4-430-4-431
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1 Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.13.1, Chapter 4, Nature and Type of Effects Section 4.13.3, pages 4-267 to 4-273 Chapter 4, Alternatives D and E Sections 4.13.7 and 4.13.8, pages 4-273
	NV	Chapter 4, Areas of Critical Environmental Concern Section 4.17, pages 4-334 to 4-338

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	UT	Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.22.1, pages 4-367 to 4-369 Chapter 4, Wilderness Study Areas Section 4.22.2, pages 4-369 to 4-370 Chapter 4, Other Special Designations Section 4.22.3, pages 4-370 to 4-372
	WY	Chapter 4, Special Designations and Management Areas Section 4.13, pages 4-241 to 4-250 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-497 to 4-498
Recreation	CO	Chapter 4, Recreation Section 4.13.4, page 4-334
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Recreation Section 4.11, Chapter 4, Impacts Common to All Alternatives Section 4.11.3, pages 4-242 Chapter 4, Alternative D Section 4.11.7, pages 4-245 to 4-246 Chapter 4, Proposed Plan Section 4.11.10, pages 4-248 to 4-249
	UT	Chapter 4, Recreation Section 4.17, Chapter 4, Alternatives Analysis Section 4.17.2, pages 4-253 to 4-255
	WY	Chapter 4, Recreation Resources Section 4.10, pages 4-127 to 4-134 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494 to 4-495; 4-547 to 4-548; 4-572 to 4-575
Comprehensive Travel Management	CO	Chapter 4, Travel Management Section 4.12.4, page 4-315
	ID	Chapter 4, Travel Management Section 4.7, Chapter 4, Impacts Common to All Alternatives Section 4.7.3, pages 4-206 Chapter 4, Alternatives D and E Sections 4.7.7 and 4.7.8, pages 4-207
	NV	Chapter 4, Travel and Transportation Management Section 4.12, Chapter 4, Impacts Common to All Alternatives Section 4.12.3, pages 4-250 Chapter 4, Alternative D Section 4.12.7, pages 4-251 to 4-252
	UT	Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, Chapter 4, Alternatives Analysis Section 4.18.2, pages 4-256 to 4-258
	WY	Chapter 4, Transportation and Access Management Section 4.15, pages 4-347 to 4-352 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-504
Livestock Grazing (Range Management)	CO	Chapter 4, Range Management Section 4.14.4, page 4-353
	ID	Chapter 4, Livestock Grazing/Range Management Section 4.6, Chapter 4, Impacts Common to All Alternatives Section 4.6.3, pages 4-178 to 4-179 Chapter 4, Alternatives D and E Sections 4.6.7 and 4.6.8, pages 4-190 to 4-194 Chapter 4, Proposed Plan Section 4.6.10, pages 4-196 to 4-203
	NV	Chapter 4, Livestock Grazing Section 4.10, Chapter 4, Impacts Common to All Alternatives Section 4.10.3, pages 4-208 Chapter 4, Alternative D Section 4.10.7, pages 4-221 to 4-224 Chapter 4, Proposed Plan Section 4.10.10, pages 4-232 to 4-241
	UT	Chapter 4, Livestock Grazing/Range Management Section 4.16, Chapter 4, Alternative D Section 4.16.5, pages 4-239 to 4-242 Chapter 4, Proposed Plan Section 4.16.7, pages 4-246 to 4-252
	WY	Chapter 4, Livestock Grazing Section 4.7, pages 4-89 to 4-106 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-492 to 4-493; 4-540 to 4-547; 4-566 to 4-571
Land Use and Realty	CO	Chapter 4, Lands and Realty Section 4.6.4, page 4-188

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	ID	Chapter 4, Lands and Realty Section 4.8, Chapter 4, Impacts Common to All Alternatives Section 4.8.3, pages 4-211 Chapter 4, Alternatives D and E Sections 4.8.7 and 4.8.8, pages 4-216 to 4-219 Chapter 4, Proposed Plan Section 4.8.10, pages 4-220 to 4-224
	NV	Chapter 4, Land Use and Realty Section 4.13, Chapter 4, Impacts Common to All Alternatives Section 4.13.3, pages 4-256 to 4-257 Chapter 4, Alternative D Section 4.13.7, pages 4-263 to 4-265 Chapter 4, Proposed Plan Section 4.13.10, pages 4-269 to 4-273
	UT	Chapter 4, Lands and Realty Section 4.19, Chapter 4, Alternative D Section 4.19.5, pages 4-266 to 4-269
	WY	Chapter 4, Lands and Realty Section 4.5, pages 4-71 to 4-81 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-491 to 4-492
Renewable Energy	CO	Chapter 4, Wind and Solar Energy Development, pages 4-18 to 4-20; 4-57 to 4-58; 4-83 to 4-85; 4-152; 4-154; 4-196 to 4-197; 4-219 to 4-220
	ID	Chapter 4, Renewable Energy Section 4.2.2, pages 4-18 to 4-20; 4-42; 4-56; 4-63 to 4-64; 4-79; 4-150; 4-210; 4-214; 4-217 to 4-218; 4-278; 4-309
	NV	Chapter 4, Renewable Energy Resources Section 4.14, Chapter 4, Impacts Common to All Alternatives Section 4.14.3, pages 4-278 to 4-279 Chapter 4, Alternative D Section 4.14.7, pages 4-282 to 4-283 Chapter 4, Proposed Plan 4.14.10, pages 4-284 to 4-286
	UT	Chapter 4, Renewable Energy Section 4.20, Chapter 4, Alternative D Section 4.20.5, pages 4-283 to 4-285
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-537 to 4-540; 4-563 to 4-565
Solid Minerals	CO	Chapter 4, Coal Section 4.9.2, pages 4-66-4-69; 4-287-4-290
	ID	Chapter 4, Nature and Type of Effects Section 4.9.1 and 4.11.2, page 4-227; 4-256; 4-259 to 4-260; 4-264 to 4-266
	NV	Chapter 4, Mineral Resources Section 4.15, pages 4-290; 4-306; 4-320
	UT	Chapter 4, Coal Section 4.21.3, pages 4-332 to 4-346
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-529 to 4-530; 4-556 to 4-557
Fluid Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-263
	ID	Chapter 4, Leasable Minerals (Leased and Unleased), Including Fluid Minerals and Nonenergy Solid Leasable Minerals Section 4.9, pages 4-224 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-224 to 4-236 Chapter 4, Geothermal Section 4.9.2, pages 4-236 to 4-248
	NV	Chapter 4, Fluid Minerals Section 4.15.1, pages 4-286 to 4-304
	UT	Chapter 4, Oil and Gas Section 4.21.1, pages 4-288 to 4-318
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-524 to 4-529; 4-552 to 4-556
Leasable Minerals	CO	Chapter 4, Minerals (Leasable) Section 4.9, pages 4-231-4-234; 4-263-4-266
	ID	Chapter 4, Nonenergy Leasable Minerals Section 4.12, Chapter 4, Nature and Types of Effects Section 4.12.2, pages 4-260

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
		Chapter 4, Alternatives D and E Sections 4.12.6 and 4.12.7, pages 4-263 to 4-264
	NV	Chapter 4, Solid (Nonenergy) Leasable Minerals Section 4.15.4, pages 4-319 to 4-325
	UT	Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-318 to 4-332
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-534 to 4-553; 4-560 to 4-563
Locatable Minerals	CO	Chapter 4, Locatable Minerals Section 4.10.4, page 4-298
	ID	Chapter 4, Locatable Minerals Section 4.10, Chapter 4, Impacts Common to All Alternatives Section 4.10.3, pages 4-251 Chapter 4, Alternatives D and E Sections 4.10.7 and 4.10.8, pages 4-253 to 4-254 Chapter 4, Proposed Plan Section 4.10.10, page 4-254
	NV	Chapter 4, Locatable Minerals Section 4.15.2, pages 4-304 to 4-311
	UT	Chapter 4, Locatable Minerals Section 4.21.4, pages 4-346 to 4-353
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-532 to 4-534; 4-558 to 4-559
	ID, NV, UT, WY	Chapter 4, Geology and Mineral Resources Section 4.2.5, pages 4-13 to 4-14; <i>Cumulative Geology and Mineral Resource Impacts Section 4.2.9, pages 4-18 to 4-20 (BLM 2016)</i>
Salable Minerals	CO	Chapter 4, Salable Minerals Section 4.11.4, pages 4-308 to 4-309
	ID	Chapter 4, Mineral Materials (Salable) Section 4.11, Chapter 4, Nature and Types of Effects Section 4.11.2, pages 4-255 Chapter 4, Alternatives D and E Sections 4.11.6 and 4.11.7, pages 4-257 to 4-258
	NV	Chapter 4, Salable Minerals Section 4.15.3, pages 4-311 to 4-319
	UT	Chapter 4, Mineral Materials Section 4.21.5, pages 4-353 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-367
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-530 to 4-532; 4-557 to 4-558
Social and Economic Conditions and Environmental Justice	CO	Chapter 4, Economic Impacts Section 4.25.3, pages 4-585 to 4-608 Chapter 4, Social Impacts Section 4.25.4, pages 4-608 to 4-617 Chapter 4, Environmental Justice Section 4.25.5, pages 4-617 to 4-619
	ID	Chapter 4, Social and Economic Conditions (Including Environmental Justice) Section 4.15, Chapter 4, Economic Impacts Section 4.15.3, pages 4-293 to 4-310 Chapter 4, Social Impacts Section 4.15.4, pages 4-310 to 4-316 Chapter 4, Environmental Justice Impacts Section 4.15.5, pages 4-316 to 4-319
	NV	Chapter 4, Economic Impacts Section 4.21.2, pages 4-407 to 4-430 Chapter 4, Social Impacts Section 4.21.3, pages 4-430 to 4-439 Chapter 4, Environmental Justice Section 4.21.4, pages 4-439 to 4-442
	UT	Chapter 4, Social and Economic Conditions (Including Environmental Justice) Section 4.23, page 4-372 Chapter 4, Economic Impacts Section 4.23.3, pages 4-375 to 4-395; Summary 4-398 to 4-402 Chapter 4, Social Impacts Section 4.23.4, pages 4-395 to 4-402 Chapter 4, Environmental Justice Impacts Section 4.23.6, pages 4-402 to 4-404
	WY	Chapter 4, Socioeconomics Section 4.11, pages 4-134 to 4-220

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
		Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-495 to 4-496
	ID, NV, UT, WY	Chapter 4, Social and Economic Conditions Section 4.3.3 to 4.3.12, pages 4-25 to 4-64; <i>Cumulative Economic and Social Impacts Section 4.3.13, pages 4-64 to 4-68 (BLM 2016)</i>
Climate Change	CO	Chapter 4, Climate Change Section 4.19, page 4-469
	ID	Chapter 4, Methods and Assumptions Section 4.2.1, page 4-7 Chapter 4, Nature and Type of Effects Section 4.2.2, pages 4-10 to 4-12; 4-51 to 4-52; 4-81; 4-127; 4-165; 4-172
	NV	Chapter 4, Climate Change Section 4.20, Chapter 4, Impacts Common to All Alternatives Section 4.20.3, pages 4-382 to 4-387 Chapter 4, Alternative D Section 4.20.7, pages 4-376 to 4-378 Chapter 4, Proposed Plan Section 4.20.10, pages 4-399 to 4-402
	UT	Chapter 4, Climate Change Section 4.5, Chapter 4, Alternatives Analysis Section 4.5.2, pages 4-137 to 4-147
	WY	Chapter 4, Air Quality Impacts Associated with Non-Oil and Gas Development Activities Section 4.2.5, pages 4-57; 4-491; 4-523 to 4-524; 4-544; 4-551;
Noise/Soundscape	CO	Chapter 4, Soundscape Section 4.22.4, page 4-506
	ID	Chapter 4, Sage-Grouse and Sage-Grouse Habitat Section 4.2, pages 4-15 to 4-31 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-227; 4-230 Chapter 4, Geothermal Section 4.9.2, pages 4-239 to 4-247 Chapter 4, Locatable Minerals Section 4.10, pages 4-250 to 4-254 Chapter 4, Mineral Materials (Salable Section) 4.11, pages 4-254 to 4-258 Chapter 4, Nonenergy Leasable Minerals Section 4.12, pages 4-259 to 4-264 Chapter 4, Impacts on lands with Wilderness Characteristics Common to All Alternatives Section 4.14.3, pages 4-279
	NV	Chapter 4, Greater Sage-Grouse and GRSG Habitat Section 4.4, pages 4-10 to 4-59 Chapter 4, Renewable Energy Resources Section 4.14, pages 4-282 to 4-286 Chapter 4, Mineral Resources Section 4.15, pages 4-286 to 4-298; 4-316; 4-323 Chapter 4, Tribal Interests Section 4.19, pages 4-370
	UT	Chapter 4, Surface Disturbance Restrictions for GRSG in Existing Land Use Plans Table 4.1; pages 4-11 to 4-14 Chapter 4, Special Status Species - Greater Sage-Grouse Section 4.3, pages 4-83 to 4-91; 4-117 to 4-135 Chapter 4, Other Special Status Species Section 4.9, pages 4-174 to 4-182 Chapter 4, Fish and Wildlife Section 4.10, pages 4-193 to 4-194 Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, pages 4-255 Chapter 4, Renewable Energy Section 4.20, pages 4-282 to 4-288 Chapter 4, Oil and Gas Section 4.21.1, pages 4-297; 4-304 to 4-315 Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-326 to 4-330 Chapter 4, Coal Section 4.21.3, pages 4-341 to 4-346 Chapter 4, Mineral Materials Section 4.21.5, pages 4-358 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-366 Chapter 4, Economic Impacts Section 4.23.3, pages 4-384
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-82 to 4-88 Chapter 4, Minerals and Energy Section 4.8, pages 4-110 to 4-117 Chapter 4, Recreation Resources Section 4.10, pages 4-128 to 4-132

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
		Chapter 4, Economic Impacts by Alternative Section 4.11.5, pages 4-191 to 4-4-210 Chapter 4, Special Designations and Management Areas Section 4.13, pages 4-244 to 4-248 Chapter 4, Special Status Species Section 4.14, pages 4-257 to 4-417 Chapter 4, Wildlife and Fisheries Section 4.21, pages 4-426 to 4-463 Chapter 4, Cumulative Impacts Section 4.22, pages 4-495 to 4-573

¹Information for Table 4-1 is found in Chapter 4 of the following documents:

- Northwest Colorado Greater Sage-Grouse FEIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/36511/58677/63740/NWCO_4_FEIS_201506_508.pdf)
- Idaho and Southwestern Montana FEIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/31652/58564/63627/08_-_ID_swMT_FEIS_Chapter_4.pdf)
- Nevada and Northeastern California Greater Sage-Grouse FEIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/21152/58710/63773/9_Volume_2_Chapter_4_NVCA_GRSG.pdf)
- Utah Greater Sage-Grouse FEIS 2015 (<https://eplanning.blm.gov/epl-front-office/projects/lup/68351/93845/113166/Chapter4.pdf>)
- Wyoming Greater Sage-Grouse FEIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/9153/58493/63913/11_Chapter-4_Environmental-Consequences_FEIS_052115.pdf)
- Sagebrush Focal Area Withdrawal DEIS 2016 (https://eplanning.blm.gov/epl-front-office/projects/lup/103347/143428/176389/SFA_DEIS_Main_Text.pdf)

4.5 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND STATE OF UTAH ALTERNATIVE

Section 4.5 identifies potential direct and indirect impacts identified with implementation of the Proposed Action and/or the State of Utah Alternative. Please refer to Table 2-5 (Colorado), 2-6 (Idaho), 2-7 (Nevada), 2-8 (Utah), and 2-9 (Wyoming) for detailed information regarding the proposed management actions and Table 2-8a (Utah) for detailed information regarding the State of Utah Alternative. Table 1-1 identifies which LMPs would be affected by the proposed alternatives and Table 1-2 identifies which of the issues carried forward apply to which state.

Table 4-2. Location of environmental analysis for alternatives in the 2015 GRSG FEIS by resource topic.

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
Special Status Species - Greater Sage-grouse (and Habitat)	CO	Chapter 4, Special Status Species, Section 4.5.2, page 4-76 to 4-109
	ID	Chapter 4, Greater Sage-Grouse and Habitat Section 4.2 Chapter 4, Nature and Type of Effects Section 4.2.2, pages 4-9 to 4-20 Chapter 4, Impacts Common to All Alternatives Section 4.2.3, pages 4-20 to 4-31 Chapter 4, Alternatives A through F Sections 4.2.4 and 4.2.10, pages 4-31 to 4-80 Chapter 4, Proposed Plan Section 4.2.1, pages 4-80 to 4-91
	NV	Chapter 4, Greater Sage-Grouse and Habitat Section 4.4 Chapter 4, Impacts Common to All Alternatives Section 4.4.3, pages 4-20 to 4-21

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
		Chapter 4, Alternative A through F Section 4.4.4 to 4.4.9, pages 4-21 to 4-51 Chapter 4, Proposed Plan Section 4.4.10, pages 4-51 to 4-60
	UT	Chapter 4, Greater Sage-Grouse and Habitat Section 4.3, Chapter 4, Alternatives A through E Section 4.3.2 to 4.3.6, pages 4-10 to 4-113 Chapter 4, Proposed Plan Section 4.3.7. pages 4-113 to 4-135
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Chapter 4, Alternatives A through D Sections 4.14.3 to 4.14.6 pages 4-252 to 4-334 Chapter 4, Proposed LUP Amendments Section 4.14.7, pages 4-334 to 4-347
	ID, NV, UT, WY	<i>Chapter 4, Wildlife and Specials Status Species Section 4.5.4, pages 4-87 to 4-92 (BLM 2016)</i>
Riparian Areas and Wetlands and Water Resources	CO	Chapter 4, Soil and Water Resources Sections 4.17.2 to 4.17.4, pages 4-431 to 4-446
	ID	Chapter 4, Vegetation Section 4.3, Chapter 4, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98 Chapter 4, Alternatives A and F Sections 4.3.4 and 4.3.9, pages 4-98 to 4-136 Chapter 4, Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Riparian Areas and Wetlands Section 4.6 and Water Resources Section 4.18 Chapter 4, Impacts Common to All Alternatives Section 4.6.3, pages 4-105 to 4-106 Chapter 4, Impacts Common to All Alternatives Section 4.18.3, pages 4-344 to 4-348 Chapter 4, Alternatives A through F Section 4.6.4 to 4.6.9, pages 4-106 to 4-136 Chapter 4, Alternatives A through F Section 4.18.4 to 4.18.9, pages 4-348 to 4-365 Chapter 4, Proposed Plan Section 4.6.10, pages 4-136 to 4-148 Chapter 4, Proposed Plan Section 4.18.10, pages 4-365 to 4-369
	UT	Chapter 4, Water Resources Section 4.7, Chapter 4, Alternatives Analysis Section 4.7.2, pages 4-151 to 4-153 Chapter 4, Vegetation (Including Riparian Areas and Wetlands) Section 4.8, Chapter 4, Alternatives A through E Section 4.8.2 to 4.8.6, pages 4-155 to 4-168 Chapter 4, Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Watershed and Water Quality Section 4.18, pages 4-374 to 4-375 Chapter 4, Alternatives A to D Sections 4.18.3 to 4.18.6, pages 4-375 to 4- 3-391 Chapter 4, Proposed LUP Amendments Section 4.18.7, pages 4-391 to 4-396
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 4, Vegetation Section 4.7.2 to 4.7.4, page 4-189 to 4-211
	ID	Chapter 4, Vegetation Section 4.3, Chapter 4, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98 Chapter 4, Alternatives A and F Sections 4.3.4 and 4.3.9, pages 4-98 to 4-136 Chapter 4, Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Vegetation and Soils Section 4.5, Chapter 4, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Chapter 4, Alternatives A through F Section 4.5.4 to 4.5.9, pages 4-66 to 4-91 Chapter 4, Proposed Plan Section 4.5.10, pages 4-91 to 4-98
	UT	Chapter 4, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 4.8, Chapter 4, Alternatives A through E Section 4.8.2 to 4.8.6, pages 4-155 to 4-168 Chapter 4, Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Forestry Section 4.4, pages 4-67 to 4-70

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
		Chapter 4, Vegetation Section 4.16, Chapter 4, Alternatives A through D, Section 4.16.3 to 4.14.6 pages 4-352 to 4-362 Chapter 4, Proposed LUP Amendments Section 4.16.7, pages 4-362 to 4-365
	ID, NV, UT, WY	<i>Chapter 4, Vegetation, including Special Status Plants, Section 4.4.4, pages 4-71 to 4-73 (BLM 2016)</i>
Wildland Fire and Fuels Management	CO	Chapter 4, Wildland Fire Ecology and Management Section 4.8.2 to 4.8.4, pages 4-211 to 231
	ID	Chapter 4, Wildland Fire Management Section 4.5, Chapter 4, Impacts Common to All Alternatives Section 4.5.3, pages 4-157 to 4-159 Chapter 4, Alternatives A and F Sections 4.5.4 and 4.5.9, pages 4-159 to 4-170 Chapter 4, Proposed Plan Section 4.5.10, pages 4-170 to 4-173
	NV	Chapter 4, Wildland Fire and Fire Management Section 4.9, Chapter 4, Alternatives A through F Section 4.9.3 to 4.9.8, pages 4-170 to 4-195 Chapter 4, Proposed Plan Section 4.9.9, pages 4-195 to 4-201
	UT	Chapter 4, Wildland Fire Management Section 4.14, Chapter 4, Alternatives A through E Section 4.14.2 to 4.14. 6, pages 4-206 to 4-218 Chapter 4, Proposed Plan Section 4.14.7, pages 4-218 to 4-221
	WY	Chapter 4, Wildland Fire and Fuels Section 4.20, pages 4-408 to 4-418 Chapter 4, Alternatives A through D Sections 4.20.3 to 4.20.6 pages 4-409 to 4-415 Chapter 4, Proposed LUP Amendments Section 4.20.7, pages 4-415 to 4-418
Recreation	CO	Chapter 4, Recreation Section 4.13.2 to 4.13.4, page 4-316 to 4-335
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Recreation Section 4.11, Chapter 4, Impacts Common to All Alternatives Section 4.11.3, pages 4-242 Chapter 4, Alternative A through F Section 4.11.4 to 4.11.9, pages 4-242 to 4-248 Chapter 4, Proposed Plan Section 4.11.10, pages 4-248 to 4-249
	UT	Chapter 4, Recreation Section 4.17, Chapter 4, Alternatives Analysis Section 4.17.2, pages 4-253 to 4-255
	WY	Chapter 4, Recreation Resources Section 4.10, pages 4-127 to 4-134 Chapter 4, Alternatives A through D Sections 4.10.3 to 4.10.6 pages 4-128 to 4-132 Chapter 4, Proposed LUP Amendments Section 4.10.7, pages 4-132 to 4-134
Comprehensive Travel Management	CO	Chapter 4, Travel Management Section 4.12.2 to 4.12.4, page 4-309 to 4-315
	ID	Chapter 4, Travel Management Section 4.7, Chapter 4, Impacts Common to All Alternatives Section 4.7.3, pages 4-206 Chapter 4, Alternatives A and F Sections 4.7.4 and 4.7.9, pages 4-206 to 4-207
	NV	Chapter 4, Travel and Transportation Management Section 4.12, Chapter 4, Impacts Common to All Alternatives Section 4.12.3, pages 4-250 Chapter 4, Alternative A through F Section 4.12.4 to 4.14.9, pages 4-250 to 4-252
	UT	Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, Chapter 4, Alternatives Analysis Section 4.18.2, pages 4-256 to 4-258
	WY	Chapter 4, Transportation and Access Management Section 4.15, pages 4-347 to

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
		4-352 Chapter 4, Alternatives A through D Sections 4.15.3 to 4.15.6 pages 4-347 to 4-351 Chapter 4, Proposed LUP Amendments Section 4.15.7, pages 4-351 to 3-352
Livestock Grazing (Range Management)	CO	Chapter 4, Range Management Section 4.14.2 to 4.14.4, page 4-338 to 4-353
	ID	Chapter 4, Livestock Grazing/Range Management Section 4.6, Chapter 4, Impacts Common to All Alternatives Section 4.6.3, pages 4-178 to 4-179 Chapter 4, Alternatives A and F Sections 4.6.4 and 4.6.9, pages 4-179 to 4-196 Chapter 4, Proposed Plan Section 4.6.10, pages 4-196 to 4-203
	NV	Chapter 4, Livestock Grazing Section 4.10, Chapter 4, Impacts Common to All Alternatives Section 4.10.3, pages 4-208 Chapter 4, Alternatives A through F Section 4.10.4 to 4.10.9, pages 4-208 to 4-232 Chapter 4, Proposed Plan Section 4.10.10, pages 4-232 to 4-241
	UT	Chapter 4, Livestock Grazing/Range Management Section 4.16, Chapter 4, Alternatives A through E Section 4.16.2 to 4.16.6, pages 4-228 to 4-246 Chapter 4, Proposed Plan Section 4.16.7, pages 4-246 to 4-252
	WY	Chapter 4, Livestock Grazing Section 4.7, pages 4-89 to 4-106 Chapter 4, Alternatives A through D Sections 4.7.3 to 4.7.6 pages 4-90 to 4-100 Chapter 4, Proposed LUP Amendments Sections 4.7.7, pages 4-100 to 4-106
Land Use and Realty	CO	Chapter 4, Lands and Realty Section 4.6.2 to 4.6.4, page 4-181 to 4-188
	ID	Chapter 4, Lands and Realty Section 4.8, Chapter 4, Impacts Common to All Alternatives Section 4.8.3, pages 4-211 Chapter 4, Alternatives A and F Sections 4.8.4 and 4.8.9, pages 4-212 to 4-220 Chapter 4, Proposed Plan Section 4.8.10, pages 4-220 to 4-224
	NV	Chapter 4, Land Use and Realty Section 4.13, Chapter 4, Impacts Common to All Alternatives Section 4.13.3, pages 4-256 to 4-257 Chapter 4, Alternatives A through F Section 4.13.4 to 4.13.9, pages 4-257 to 4-269 Chapter 4, Proposed Plan Section 4.13.10, pages 4-269 to 4-273
	UT	Chapter 4, Lands and Realty Section 4.19, Chapter 4, Alternatives A through E Section 4.19.2 to 4.19.6, pages 4-260 to 4-271 Chapter 4, Proposed Plans Section 4.19.7, pages 4-271 to 4-275
	WY	Chapter 4, Lands and Realty Section 4.5, pages 4-71 to 4-81 Chapter 4, Alternatives A to D Sections 4.5.3 to 4.5.6 pages 4-72 to 4-78 Chapter 4, Proposed LUP Amendments Section 4.5.7, pages 4-78 to 4-81
Renewable Energy	CO	Chapter 4, Wind and Solar Energy Development, pages 4-18 to 4-20; 4-57 to 4-58; 4-83 to 4-85; 4-152; 4-154; 4-196 to 4-197; 4-219 to 4-220
	ID	Chapter 4, Renewable Energy Section 4.2.2, pages 4-18 to 4-20; 4-42; 4-56; 4-63 to 4-64; 4-79; 4-150; 4-210; 4-214; 4-217 to 4-218; 4-278; 4-309
	NV	Chapter 4, Renewable Energy Resources Section 4.14, Chapter 4, Impacts Common to All Alternatives Section 4.14.3, pages 4-278 to 4-279 Chapter 4, Alternatives A through F Section 4.14.4 to 4.14.9, pages 4-279 to 4-284

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	UT	Chapter 4, Renewable Energy Section 4.20, Chapter 4, Alternatives A to E Section 4.20.2 to 4.20.6, pages 4-278 to 4-287
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Solid Minerals	CO	Chapter 4, Coal Section 4.9.2, pages 4-266 to 4-290
	ID	Chapter 4, Nature and Type of Effects Section 4.9.1 and 4.11.2, page 4-227; 4-256; 4-259 to 4-260; 4-264 to 4-266
	NV	Chapter 4, Mineral Resources Section 4.15.4, pages 4-319 to 326
	UT	Chapter 4, Coal Section 4.21.3, pages 4-332 to 4-346
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Fluid Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-231 to 4-266
	ID	Chapter 4, Leasable Minerals (Leased and Unleased), Including Fluid Minerals and Nonenergy Solid Leasable Minerals Section 4.9, pages 4-224 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-224 to 4-236 Chapter 4, Geothermal Section 4.9.2, pages 4-236 to 4-248
	NV	Chapter 4, Fluid Minerals Section 4.15.1, pages 4-286 to 4-304
	UT	Chapter 4, Oil and Gas Section 4.21.1, pages 4-288 to 4-318
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Leasable Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-231 to 4-266
	ID	Chapter 4, Nonenergy Leasable Minerals Section 4.12, Chapter 4, Nature and Types of Effects Section 4.12.2, pages 4-260 Chapter 4, Alternatives A to F Sections 4.12.3 and 4.12.8, pages 4-261 to 4-265
	NV	Chapter 4, Solid (Nonenergy) Leasable Minerals Section 4.15.4, pages 4-319 to 4-325
	UT	Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-318 to 4-332
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Locatable Minerals	CO	Chapter 4, Locatable Minerals Section 4.10.2 to 4.10.4, page 4-290 to 4-298
	ID	Chapter 4, Locatable Minerals Section 4.10, Chapter 4, Impacts Common to All Alternatives Section 4.10.3, pages 4-251 to 4-252 Chapter 4, Alternatives A to F Sections 4.10.4 and 4.10.8, pages 4-252 to 4-254 Chapter 4, Proposed Plan Section 4.10.10, page 4-254
	NV	Chapter 4, Locatable Minerals Section 4.15.2, pages 4-304 to 4-311
	UT	Chapter 4, Locatable Minerals Section 4.21.4, pages 4-346 to 4-353
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
	ID, NV, UT, WY	Chapter 4, Geology and Mineral Resources Section 4.2.4, page 4-13 to 4-20 (BLM 2016)
Salable Minerals	CO	Chapter 4, Salable Minerals Section 4.11.2 to 4.11.4, pages 4-299 to 4-308
	ID	Chapter 4, Mineral Materials (Salable) Section 4.11, Chapter 4, Nature and Types of Effects Section 4.11.2, pages 4-255 to 4-256 Chapter 4, Alternatives A and F Sections 4.11.3 and 4.11.8, pages 4-256 to 4-258
	NV	Chapter 4, Salable Minerals Section 4.15.3, pages 4-311 to 4-319
	UT	Chapter 4, Mineral Materials Section 4.21.5, pages 4-353 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-367
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Chapter 4, Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Chapter 4, Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118

¹Information for Table 4-2 is found in Chapter 4 of the following documents:

- Northwest Colorado Greater Sage-Grouse Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/36511/58677/63740/NWCO_4_FEIS_201506_508.pdf)
- Idaho and Southwestern Montana Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/31652/58564/63627/08_ID_swMT_FEIS_Chapter_4.pdf)
- Nevada and Northeastern California Greater Sage-Grouse Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/21152/58710/63773/9_Volume_2_Chapter_4_NVCA_GRSG.pdf)
- Utah Greater Sage-Grouse Final EIS 2015 (<https://eplanning.blm.gov/epl-front-office/projects/lup/68351/93845/113166/Chapter4.pdf>)
- Wyoming Greater Sage-Grouse Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/9153/58493/63913/11_Chapter-4_Environmental-Consequences_FEIS_052115.pdf)
- Sagebrush Focal Area Withdrawal Draft EIS 2016 (https://eplanning.blm.gov/epl-front-office/projects/lup/103347/143428/176389/SFA_DEIS_Main_Text.pdf)

4.5.1 HABITAT MANAGEMENT AREA DESIGNATIONS

Table 4-3. HMA designations considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Identify a process for evaluating and updating habitat management area (HMA) boundaries	Idaho: Common to All Alternatives, Appendix F Nevada: Alternatives D and E Utah: Common to All Alternatives, Appendix N Wyoming: Not considered Great Basin and Rocky Mountain RODs
Changes in HMA boundaries	Colorado: Not considered Nevada: Not considered Wyoming: Alternatives B, C, D (partial- PHMA-core and connectivity identified as GHMA)
Focus protection in PHMAs relative to other HMA designations	Idaho: Alternatives B, D, F and Proposed Plan Alternative Wyoming: Alternatives B, C, D and Proposed LUP Amendments

Issue	Considered in 2015 GRSG FEIS
Change the Anthro Mountain HMA designation to PHMA designation	Utah: Not considered
Eliminate the GHMA and Anthro Mountain designation	Utah: Anthro Mountain and GHMA was not identified as an HMA or any other habitat designation in the E1 Alternative.

Identify a process for evaluating and updating habitat management area (HMA) boundaries

Both the Rocky Mountain and Great Basin Records of Decision addressed updating of HMA boundaries: “As new information about greater sage-grouse habitat becomes available, including seasonal habitats, in coordination with the State wildlife agency and USFWS, and based on best available scientific information, the Forest Service may revise the greater sage-grouse habitat management area maps and associated management decisions through LMP amendment/revision, as appropriate” (page 21 and 22, respectively). Maps of the alternatives can be found in the FEIS in Appendix A. Differences in mapping layers between the 2015 GRSG ROD and 2019 amendments can also be examined using a map web-tool located at:

<https://usfs.maps.arcgis.com/apps/PublicInformation/index.html?appid=9f1cf6d8425e49949d0006a0ae574b84>.

The Proposed Action for Idaho, Nevada, Utah, and Wyoming includes a management approach that identifies the process for evaluating and updating HMA boundary maps. HMAs, or, if HMAs are not specified, lek buffers, are used to identify where plan components apply. A plan amendment is required to modify where one or more plan components apply to all or part of a plan area (including management areas, 36 CFR 219.13).

Changes in HMA boundaries

The Proposed Action for Colorado, Nevada, and Wyoming include adjustments to HMA boundary maps. Appendix A includes maps for each alternative by state and forest.

Colorado

Table B in the 2015 Rocky Mountain ROD/LMPA used a proclaimed boundary mapping layer to determine the number of acres of HMA and create the maps (see 2015 GRSG ROD and LMPA, page 18). This resulted in 5,200 acres of PHMA and 14,900 acres of GHMA. When the maps were created for the 2019 FEIS, the ownership boundary mapping layer was used. This resulted in a reduction of acres, and a more accurate reflection of the number of acres of HMA on the ground (11,000 acres of GHMA and 1,400 acres of PHMA). No impact to greater sage-grouse is anticipated from the HMA boundary adjustment.

Nevada

The HMA boundaries in Nevada have been adjusted during this amendment process. PHMA decreased by 105,200 acres, GHMA increased by 298,300 acres, and OHMA decreased by 198,800 acres (Tables 2-4). Overall, there was a negligible change (decrease of 5,700 acres) in total HMA acreage. PHMA, GHMA, and OHMA acres have been better classified based on incorporation of current science including new lek locations, improved understanding of sage-grouse space-use from marked birds and modelling work, and removal of areas of non-habitat including areas near town and city centers (Coates et al. 2016). No impact to greater sage-grouse is anticipated from the HMA boundary adjustment.

Wyoming

The HMA boundaries in Wyoming have been adjusted during this amendment process. In the 2015 GRSG

EIS, PHMA, PHMA-Core, and PHMA-Connectivity designations were identified. In this amendment, PHMA decreased by 100,200 acres, GHMA decreased by 94,600 acres, PHMA-Core designation was eliminated, and PHMA-Connectivity is referred to as CHMA (Tables 2-1, 2-2, and 2-4). The State of Wyoming Version 4 Core Area maps are the most up to date science in Wyoming regarding sage-grouse occupancy, and were used to delineate PHMA, GHMA, and CHMA boundaries for this amendment.

For example, in the 2015 GRSG EIS, on the Bridger-Teton NF, 53,000 acres were designated incorrectly as PHMA-Connectivity and did not align with the State of Wyoming mapping effort. Decreases in acreage in both GHMA and PHMA are a result of boundaries being better aligned with the Wyoming Version 4 map; acres removed from HMA designation were not consistent with the Wyoming Version 4 map because of being non-habitat or not within FS-ownership. The PHMA-Core, which was included in the 2015 GRSG EIS, was mapped by the State of Wyoming and overlaid PHMA. The PHMA-Core designation is being eliminated because it overlaid PHMA (therefore was not additive in acreage) and created confusion. No impact to greater sage-grouse is anticipated from the HMA boundary adjustment.

Focus protection in PHMAs relative to other HMA designations

Idaho

PHMA, which corresponds to the State of Idaho's core habitat zones, contains approximately two thirds of all known occupied leks, and is considered the highest quality greater sage-grouse habitat. IHMA has approximately a quarter of all known occupied leks and GHMA contains less than 10 percent of all known leks. GHMA is considered lower quality habitat compared to PHMA and IHMA. The prioritizing of HMAs would improve alignment with the Governor's Plan by having the most restrictive management in PHMA and reducing those restrictions in IHMA and further reducing restrictions in GHMA. If a hard trigger (either population or habitat) occurs, management in IHMA would be consistent with PHMA management direction until adaptive regulatory criteria are met. In 2018, some population and habitat hard triggers and soft triggers were met in the Mountain Valley and Desert BSUs. In reference to the 2015 adaptive management approach, the IMHA within these BSUs will be managed as PHMA. Causal factors have not yet been determined and are currently being analyzed.

In Idaho, mitigation would not be required in GHMA, and a primary goal of the Governor's Greater Sage-Grouse plan is to push development out of PHMA and IHMA into GHMA or outside of habitat; therefore, greater sage-grouse in GHMA or outside designated habitat would be at increased risk of habitat loss or displacement; however, this area typically contains lower quality or marginal greater sage-grouse habitat. The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat. This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat. The result would be greater protection in IHMA and the greatest level of protection in PHMA, which represent higher quality habitat for greater sage-grouse.

Wyoming

The FS would continue to work with the State of Wyoming in the identification of new core (PHMA) and connectivity areas (PHMA) or the removal of areas from core and connectivity (PHMA) habitat, as well as identification of winter concentration areas. Depending on the scale of the proposed change, the FS would amend its greater sage-grouse management areas in conjunction with the State of Wyoming's core areas, upon issuance of any Wyoming Governor's EO revising or amending the core area boundaries.

Updating the FS's PHMA to match the State of Wyoming's core area boundaries has the potential to affect

greater sage-grouse and other resources through additional or fewer restrictions imposed on development and other types of land use activities. The FS would continue to work with the State of Wyoming in the identification of new core (PHMA) and connectivity areas (PHMA) or the removal of areas from core and connectivity (PHMA) habitat, as well as identification of winter concentration areas. As the boundaries are updated, the land use plan allocations associated with each habitat management area would be adjusted to match the newest habitat management area boundaries. This would benefit greater sage-grouse by ensuring allocations and any of their associated restrictions are applied in the appropriate areas, while allowing development to occur in areas that would result in few or no impacts to greater sage-grouse.

Consistent application of management actions across the state's core areas and the FS's PHMA would result in beneficial impacts on the species in Wyoming, but it may result in locally adverse impacts on areas previously located in core areas but then removed to non-core (GHMA). This is not anticipated to affect greater sage-grouse conservation; rather, it is likely to improve consistent management of the habitat across the state, thus benefiting greater sage-grouse conservation in Wyoming.

Change the Anthro Mountain HMA designation to PHMA designation

Utah

In the 2015 GRSG FEIS, all plan components that applied to the Anthro Mountain habitat designation also applied to PHMA designation. The exception was GRSG-M-FML-ST-81-Standard that outlined conditions for approval on existing fluid mineral leases on Anthro Mountain. The change in designation would have all plan components relevant to PHMA be applicable to the portion of habitat formerly known as Anthro Mountain. No impact to greater sage-grouse is anticipated from the PHMA designation.

Eliminate the GHMA and Anthro Mountain designation (State of Utah Alternative)

Utah

Under the State of Utah Alternative, GHMA and Anthro Mountain habitat designations would be removed along with corresponding plan components from the 2015 Greater Sage-Grouse Plan Amendments. Disturbance would be focused outside of PHMA, which is similar to the 2015 Greater Sage-Grouse Plan Amendments. This alternative would eliminate protections given to GHMA in all plan components.

GHMA areas on NFS lands is approximately 5.6 percent of the Forest Service decision area in Utah. These habitat areas tend to be fragmented habitats, areas containing small isolated populations, and many acres of unoccupied and non-habitats and is of low-biological significance to greater sage-grouse.

Prior to the development of the 2015 Greater Sage-Grouse Plan Amendments, the State of Utah conducted an analysis of the GHMAs relative to the State SGMAs (Alternative E1). Utah's SGMA (which corresponded with PHMA in federal plans), encompassed over 96 percent of the known sage-grouse population areas in Utah and the habitats which offer the best ecological potential (UT Greater Sage-grouse Working Group 2013). GHMA on FS lands makes up only 1 percent of the habitat utilized by sage-grouse based on Utah's known GPS and telemetry data. In 2017, fewer than 300 male sage-grouse were found in all GHMA and other non-PHMA habitat throughout Utah in 2017. Sage-grouse tracked by telemetry have very little interaction or use with USFS's lands designated as GHMA (State of UT 2018b).

A recently-released study (Cross et al. 2018) attempted to quantify the importance of connectivity across the range of greater sage-grouse. The study identified certain portions of Utah as important for

connectivity. However, the study did not consider the impacts that translocated birds have had in Utah. Since the 1950s to the present, the Utah has utilized hundreds of translocated birds from all parts of the State as a tool to move birds and recover or supplement populations. Many of the areas identified in the paper as being important for “gene-flow” or connectivity, have been artificially connected through state management and translocation of sage-grouse.

The idea that GHMA is important for gene-flow and connectivity is not supported by the best available local data and science. The removal of habitat management designation from GHMA would serve to incentivize protections in PHMA. There are currently plan components addressing GHMA which prioritize protection of PHMA and allow development in GHMA. The long-term effect of this alternative on greater sage-grouse is expected to ultimately be similar to effects in the No Action and Proposed Action Alternatives.

The State of Utah Alternative considers eliminating HMA designation from the Anthro Mountain area located on the Ashley National Forest. There are 119 leks within northeastern Utah, in the Anthro Mountain, Blue Mountain, Emma Park, Diamond Mountain, Little Mountain, Uinta South Slope, Strawberry Valley, Three Corners, West Tavaputs, Deadman’s Bench, and Book Cliffs areas. The Ashley NF lies within this broader complex of sage-grouse populations. There are 13 leks occurring on the Ashley NF; 6 of which occur in the Anthro Mountain area. In 2018, Ashley NF personnel, who count males on leks for UDWR, counted a total of 62 males on the Anthro Mountain leks, an increase of 8% over the 2017 lek count. Anthro Mountain leks account for between 10 to 48% of the total males counted on the Ashley NF, depending upon the year (Rodriguez 2018).

The State of Utah analyzed population trends in this area using the methods in the State’s Draft Conservation Plan for the 119 lek locations in northeastern Utah using 2018 lek count data. The State of Utah evaluated the proportion of the population, population trends, and population growth rates of the area with Anthro Mountain sage-grouse included, and with Anthro Mountain sage-grouse excluded. There is a 20-year average of 958 males on leks in the broader northeastern Utah area, of which 30 were from Anthro Mountain which represents 3 percent of total males. When evaluating population trends using the most recent 20 years of lek count data, population trends and growth rates were highly positive, both with and without Anthro Mountain sage-grouse included in the analysis. Sage-grouse populations in northeastern Utah are growing at a rate of over 45 birds per year on average over the course of the last 20 years. When the Anthro Mountain birds are excluded from the analysis, the sage-grouse populations in northeastern Utah are growing at a rate of over 42 birds per year on average over the course of the last 20 years (State of Utah 2018b).

Telemetry data (over 1,700 locations) collected from 2002 to 2008 by UDWR and FS staff demonstrated that the Anthro Mountain area provides connectivity between the Emma Park and West Tavaputs populations (Christensen 2008). There has been no documentation of bird movements between West Tavaputs and Emma Park; however, movements to and from Anthro Mountain to both these populations has been recorded (Christensen 2008, Gruber 2012, and Duvuvuei 2013). Telemetry data also demonstrated that birds trapped on Anthro Mountain may also breed in West Tavaputs (Christensen 2008). Anthro Mountain’s connectivity to these other two populations was also substantiated by Utah State University in 2009-2013 (Gruber 2012 and Duvuvuei 2013). This study demonstrated that Anthro Mountain birds wintered in West Tavaputs and Emma Park, thus illustrating connectivity between populations, and without the Anthro Mountain population, possible genetic exchange between these two populations may be lost. The Anthro Mountain population of sage-grouse was augmented with translocated sage-grouse in 2009 and 2010 (Gruber 2012); however, the Anthro Mountain sage-grouse

movements to Emma Park and West Tavaputs were documented as early as 2002 (Christensen 2008).

Based on the analysis above, the Anthro Mountain PHMA designation is not necessary to ensure biological persistence of greater sage-grouse in northeastern Utah, however, the leks in the Anthro Mountain area have relevance to species persistence on the Ashley NF as the Anthro Mountain area has nearly half of the known leks on the Forest. If Anthro Mountain is not retained as PHMA, the area could be negatively impacted by future development that could reduce the distribution of sage-grouse on the Ashley NF. Other sage-grouse habitats on the Ashley NF remain designated as PHMA under the State of Utah Alternative, so a loss of the Anthro Mountain leks impacts species persistence, but does not necessarily result in a loss of greater sage-grouse viability on the Ashley NF.

4.5.2 ELIMINATION OF SAGEBRUSH FOCAL AREA DESIGNATIONS/WITHDRAWALS

Table 4-4. Elimination of SFA designations/withdrawals considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Sagebrush Focal Areas (SFAs) duplicate many protections that are already in place through the designation of priority habitat management areas (PHMAs) in the absence of mineral withdrawals	Idaho: Analyzed in Alternatives A, B, C, D, E, and F Nevada: Analyzed in Alternatives A, B, C, D, E, and F Utah: Analyzed in Alternatives A, B, C, D, and E1 Wyoming: Analyzed in Alternatives A, B, C, and D All: SFA Withdrawal DEIS, No Action Alternative

Sagebrush Focal Areas (SFAs)

SFAs are a subset of PHMA (with few exceptions) and are managed as PHMA with some additional management. Both SFA and PHMA are managed as no surface occupancy (NSO) for fluid mineral leasing, the only difference is that PHMA allows for a limited exception and the exceptions must meet a stringent series of criteria to be approved. The removal of SFA designations would have no measurable effect on the conservation of greater sage-grouse because the management direction proposed for PHMA would remain in place and continue to protect greater sage-grouse habitat. SFA removal would add flexibility for responsible development with stringent requirements including mitigation to achieve a no net loss to greater sage-grouse habitat in PHMA. There is virtually no overlap of active oil and gas well development with the 2015 SFA designated areas, which indicates that the potential for development of oil and gas in the areas previously designated as SFAs is very low (Chambers et al. 2017). The change from NSO with no exception to NSO with limited exception should not result in increased habitat loss or degradation because the proposed exception criteria would require there be no direct, indirect, or cumulative impacts or impacts could be offset to achieve a no net loss (ID, UT, WY) or a net conservation gain (NV) to greater sage-grouse or its habitat.

Sagebrush Focal Area Mineral Withdrawal

The proposed mineral withdrawal was canceled with a Notice of Cancellation published in the Federal Register on October 11, 2017, which canceled the BLM's application to withdraw SFA from locatable mineral entry (82 FR 47248, October 11, 2017). The impacts associated with not pursuing withdrawal were analyzed in the 2016 Sagebrush Focal Area DEIS which analyzed the impacts of not moving forward with a withdrawal in the No Action Alternative. Applicable analyses from the 2015 GRSG FEIS and 2016 DEIS explain the impacts from these actions, and are incorporated by reference (Table 4-1).

There were no SFA mineral withdrawals in Colorado. In 2015, plan components with references to SFAs were mistakenly included for Northwestern Colorado. Information on page 21 and in Table C in the 2015 GRSG ROD for Northwest Colorado and Wyoming shows there are no SFAs located in Northwestern Colorado. Therefore, references to SFA mineral withdrawals in Colorado were removed from forest plan components in Chapter 2, Table 2-5.

4.5.3 CHANGING NET CONSERVATION GAIN

Table 4-5. Changing net conservation gain and adjustment of compensatory mitigation frameworks considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Net conservation gain changed to no net loss of habitat to align with the state mitigation strategies	"No net loss" analyzed in: Colorado: Not considered Idaho: Alternative D Utah: Not considered Wyoming: Not considered
Alignment with the Idaho Governor's Task Force Plan Prioritization of protection of PHMA by emphasizing compensatory mitigation in IHMA	Idaho: Proposed Plan Alternative
Alignment with the Wyoming Compensatory Mitigation Framework	Wyoming: Proposed LUP Amendment
Alignment with the State of Nevada's Mitigation Strategy	Nevada: Proposed Plan Alternative
Alignment with State of Utah Compensatory Mitigation Program	Utah: Proposed Plan Alternative

Biologically, there is no measurable effect on the conservation of greater sage-grouse in changing from net conservation gain to no net habitat loss, in part because of the wide definition of net conservation gain in the 2015 GRSG ROD. Specifically, the definition of net conservation gain was, "the actual benefit or gain above baseline conditions," which translated to an uncertain degree of improvement, which could be a minimal number of acres, but is not necessarily tied to habitat. The use of no net habitat loss, defined as, "retaining an equivalent amount of sage-grouse habitat after a proposed action that is equal to or above baseline conditions that existed before the proposed action," is consistent with the purpose and need in that it provides a clearer link to acres and equivalency or uplift for the species than the previous net conservation gain definition.

Colorado

The Forest Service will require mitigation that provides a minimum of no net habitat loss for the greater sage-grouse when undertaking Forest Service management actions, and consistent with valid existing rights and applicable law, in authorizing third party actions that result in greater sage-grouse habitat loss and degradation. The Northwest Colorado Mitigation Strategy can be found in Appendix B.

The application of a robust and transparent Mitigation Strategy will contribute to greater sage-grouse habitat conservation by reducing, eliminating, or minimizing threats and compensating for residual impacts to the greater sage-grouse and its habitat. Any impacts associated with the need for compensatory mitigation, or the applicability of compensatory mitigation, would be identified at the site-specific project level.

The impacts associated with the removal of the compensatory mitigation standard of “net conservation gain” would have minimal impacts across the range of greater sage-grouse in Colorado. This is because the Mitigation Strategy provides a replacement of habitat, including indirect effects, with assurances and durability over the life of the impact; however, there is the potential for local adverse impacts on greater sage-grouse as a result of modifying the decisions associated with compensatory mitigation and net conservation gain. Site-specific impacts would be identified at the time of site-specific environmental review.

Idaho

Net conservation gain was incorporated into the Mitigation Strategies between the 2015 GRSG DEIS and the FEIS, which did not provide the public opportunity to comment on this approach. In Idaho, the Mitigation Strategy is being modified to align with the Idaho State Mitigation Strategy by changing “net conservation gain” to “no net habitat loss”. Conceptually, “no net loss” would result in fewer acres being restored, improved, or protected as compared with “net conservation gain”. However, if the proponent is not willing to provide mitigation that exceeds the minimal net gain standard, the resulting acreage would be similar. There are very few large-scale projects requiring compensatory mitigation on Forest Service lands in Idaho; the acres of habitat not restored because of the reduction in the mitigation standard from net gain to no net loss would be much less than one percent of the vegetation treatments completed each year. The mitigation strategy for the Proposed Action in Idaho can be found in Appendix C.

In Idaho, mitigation would not be required in GHMA, and a primary goal of the Governor’s Greater Sage-Grouse plan is to push development out of PHMA and IHMA into GHMA or outside of habitat; therefore, greater sage-grouse in GHMA or outside designated habitat would be at increased risk of habitat loss or displacement; however, this area typically contains lower quality or marginal Greater Sage-Grouse habitat. The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat. This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat.

Utah

Net conservation gain was incorporated into the Mitigation Strategies between the 2015 GRSG DEIS and the FEIS, which did not provide the public opportunity to comment on this approach. In Utah, the change to compensatory mitigation would also change “net conservation gain” to “no net habitat loss” to align with the State of Utah’s Compensatory Mitigation Program which was developed subsequent to the 2015 GRSG FEIS. Mitigation would only be required in PHMA, where protections are being focused under the Proposed Action, because PHMA provides higher quality habitat. Improving higher quality habitat would be expected to benefit greater sage-grouse rather than focusing efforts in the lower quality habitat that GHMA provides. The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat in the Proposed Action and the State of Utah Alternative. This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat. The mitigation strategy for the Proposed Action in Utah can be found in Appendix E.

Nevada

Net conservation gain was analyzed in Alternative E in the 2015 GRSG FEIS and remains in place for the No Action Alternative and the Proposed Action. Environmental analysis would occur at the project level for current or future projects. When authorizing third-party actions that would result in direct, indirect, or cumulative impacts on greater sage-grouse or their habitat, the FS would require those impacts to be

quantified using the State of Nevada’s Habitat Quantification Tool (HQT) to ensure consistency in tracking/reporting changes to habitat quality and quantity. Applicable analyses from the 2015 GRSG FEIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is needed. The mitigation strategy for the Proposed Action in Nevada can be found in Appendix D.

Wyoming

The FS expects to rely on the State of Wyoming’s Greater Sage-Grouse Compensatory Mitigation Framework if the need for compensatory mitigation is identified by the State of Wyoming through the Executive Order review process and appropriate coordination. The FS proposes applying minimal compensatory mitigation requirements of no net habitat loss to maximize consistency in plans across state and federal lands; state plans can produce gains above net habitat loss that can be considered in decisions. The mitigation strategy for the Proposed Action in Wyoming can be found in Appendix F.

Determination of the applicability of the framework and amount of compensatory mitigation would be made by the State of Wyoming. Any impacts associated with the need for compensatory mitigation, or the applicability of compensatory mitigation, would be identified at the site-specific project level.

The impacts associated with the removal of the compensatory mitigation standard of “net conservation gain” would have minimal impacts across the range of greater sage-grouse in Wyoming. This is because the State of Wyoming’s compensatory mitigation framework provides a replacement of habitat, including indirect effects, with assurances and durability over the life of the impact; however, there is the potential for local adverse impacts on greater sage-grouse as a result of modifying the decisions associated with compensatory mitigation and net conservation gain. Site-specific impacts would be identified at the time of site-specific environmental review.

4.5.4 MODIFYING LEK BUFFERS

Table 4-6. Modifying Lek Buffers Considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Prioritization of protection of PHMA by allowing flexibility in lek buffer application	Idaho: Proposed Plan Amendment
Specifying active or pending leks rather than occupied leks	Nevada: Proposed Plan Amendment

Idaho

Lek buffers would remain the same in PHMA, which contain approximately two thirds of all known occupied leks. There would be no effect to greater sage-grouse in PHMA.

The minimum recommended buffer distances documented by a USGS literature review (Manier et al. 2014) would be applied in IHMA, which has approximately a quarter of all known occupied leks, and GHMA, which contains less than 10 percent of all known leks. These buffers, which are smaller than the buffers identified for use in the 2015 GRSG ROD and LMPA, would be applied to tall structures and would vary for different types of structures. Other restrictions in IHMA such as mitigation, disturbance cap, and NSO with limited exception would serve to ensure responsible development; however, infrastructure would be allowed closer to leks, subject to the before-mentioned restrictions. There is very little new development of infrastructure in PHMA or IHMA. The reduction of buffers in IHMA would not result in increased development around most leks because disturbance in FS HMAs is limited; however, if

development were to occur nearer than the buffers identified in the No Action, those leks would be at an increased risk of being abandoned. GHMA contains very few leks and is lower quality habitat compared to PHMA and IHMA.

The reduced buffer distance in IHMA and GHMA would improve alignment with the Governor’s Plan by having the most restrictive management in PHMA and reducing those restrictions in IHMA and further reducing restrictions in GHMA.

Nevada

The Nevada Department of Wildlife (NDOW) is the agency responsible for developing lek count protocol, collecting and coordinating lek count data, and maintaining the state lek database. NDOW classifies leks as active and/or pending. In the 2015 GRSG FEIS, the terms “active”, “occupied”, or an unqualified “lek” were used interchangeably, but all fit into the NDOW definition of active and/or pending. This caused confusion, so language was clarified to ensure the correct definition for lek activity is used. This clarification will not have an effect on greater sage-grouse.

4.5.5 INCLUDING WAIVERS, EXCEPTIONS, AND MODIFICATIONS ON NSO STIPULATIONS

Table 4-7. Including Waivers, Exceptions, and Modifications on NSO Stipulations considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
<p>The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Colorado: Proposed Plan Amendments</p>
<p>The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Idaho: Proposed Plan Amendments</p>
<p>The no surface occupancy (NSO) exception includes appropriate use of mitigation hierarchy</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Nevada: Proposed Plan Amendments</p>
<p>Exceptions must result in no effects to GRSG or habitat or all impacts could be offset through mitigation</p> <p>Clarified geothermal leases included in fluid leases</p> <p>Change in requirements for the USFWS to approve waivers, exceptions, or modifications</p>	<p>Utah: Proposed Plan Amendment</p>
<p>Connectivity habitat added to NSO or surface disturbing activities being not authorized within 0.6 miles of occupied leks</p>	<p>Wyoming: Proposed LUP Amendments</p>

Appendix G of the FEIS includes a Management Approach for Fluid Minerals: Stipulations for all 5 states.

Colorado

The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations. The removal of the requirement for a unanimous finding between FS, FWS, and the State of Colorado to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Colorado, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Idaho

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Idaho to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Idaho, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Nevada

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Nevada to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Nevada, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Utah

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Utah to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Utah, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Wyoming

Including CHMA is merely a clarification since this designation is a component of PHMA.

4.5.6 MODIFYING DESIRED CONDITIONS

Table 4-8. Modifying desired conditions considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Local ecological site potential considered, broader description of appropriate GRSG habitat requirements identified, and seasonal use periods and habitat preferences values moved to appendix	Nevada: Alternatives B, D, E, and F and Proposed Plan Wyoming: Alternative B, C and D
Updating desired condition table values	Utah: Alternative D

Nevada

The seasonal use periods and habitat preferences table is identified as a management approach and is included in Appendix D. This will allow the table to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommend adjustments would be based on regionally and locally derived data. Modifying seasonal use periods and habitat preferences would better align with state conservation plans and management strategies resulting in improved management of great sage-grouse.

Desired conditions are identified in the 2015 GRSG FEIS and in the Proposed Action at GRSG-GEN-DC-003-Desired Condition. The seasonal use periods and habitat preferences table would be implemented following the guidance that these are broad goals based on habitat selection that may not be achievable in all areas and should be based on sources such as ecological site descriptions and associated state-and-transition models.

Wyoming

The values for greater sage-grouse habitat attributes table is identified as a management approach and is included in Appendix F. This will allow the table to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommend adjustments would be based on regionally and locally derived data. Modifying habitat attributes would better align with state conservation plans and management strategies resulting in improved management of the greater sage-grouse.

Utah

In the 2015 GRSG FEIS, Alternative D includes an objective to “maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, winter, and transition areas” and specifies that the “desired cover percentages and heights for sagebrush, grasses, and forbs in seasonal habitats will be managed to meet habitat guidelines from scientific literature (e.g., Connelly et al. 2000 and Hagen et al. 2007), where such standards can be met” (page 2-85 to 2-86). Additionally, “adjustments from the guidelines may be made, but must be based on documented regional variation of habitat characteristics (e.g., sagebrush type, ecological site potential), quantitative data from population and habitat monitoring, and evaluation of local research” (page 2-86). Applicable analyses from the 2015 GRSG FEIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is needed.

4.5.7 CHANGING LIVESTOCK GRAZING GUIDELINES

Table 4-9. Changing livestock grazing guidelines considered in the 2015 GRSG FEIS.

Issue	Considered in 2015 GRSG FEIS
Replace specific grass-height guidelines with guidelines to adjust livestock management as needed if livestock grazing is limiting achievement of GRSG habitat conditions	Colorado: Alternatives A, B, C, and D Idaho: Alternatives A, B, D Utah: Alternatives A, B, D Nevada: Alternatives A, B, D Wyoming: Alternatives A, B, D
Replace specific grass-height guidelines with guidelines for riparian and meadow areas	Nevada: Alternatives A, D, and E
Modify language regarding water developments in HMAs	Idaho: Alternatives A and E Nevada: Alternatives A and E Utah: Alternatives A and E

Colorado, Idaho, Nevada, Utah, and Wyoming

Desired Condition

The 2015 Greater Sage-Grouse Plan Amendments listed a Desired Condition for livestock grazing being “managed to maintain or move towards desired conditions” (ID-GRSG-LG-DC-033-Desired Condition; NV-GRSG-LG-DC-039-Desired Condition; UT-GRSG-LG-DC-034-Desired Condition). This desired condition is being modified or removed because it does not provide any specific direction and is a circular statement; a desired condition cannot be to maintain or move toward a desired condition. The desired conditions for breeding, nesting, upland summer, and winter habitats are defined for each state (Table 2-5 through 2-9).

Replace specific grass-height guidelines with guidelines to adjust livestock management as needed if livestock grazing is limiting achievement of greater sage-grouse habitat conditions

Based on the new understanding of habitat characteristics, plant phenology and sampling bias (Hanser et al. 2018), the biological foundation for the development of the 2015 Greater Sage-Grouse Plan Amendments grazing guidelines has changed and this changed condition warrants removal of the grazing guidelines, which are not necessary as conservation measures for sage-grouse.

Monitoring of greater sage-grouse seasonal habitats that occurred in 2016 and 2017 showed that in the majority of the cases, nesting, breeding, upland summer, and winter habitats were in suitable condition with grazing being managed consistent with direction in existing land management plans (USDA FS 2018). Existing plan components, when compared to published scientific findings, are generally compatible with habitat requirements for sage-grouse and monitoring showed that livestock grazing is not affecting the achievement or maintenance of desired conditions described in the 2015 Greater Sage-Grouse Plan Amendments.

Monitoring associated with droop heights on grasses showed that the existing land management plan direction was also providing for perennial grass at or above the droop heights planned for in the 2015 Greater Sage-Grouse Plan Amendment grazing guidelines (Table 3-5). While stubble height monitoring was more limited, it also showed that the existing land management plan direction was providing sufficient direction for meeting that identified in the 2015 Greater Sage-Grouse Plan Amendment grazing guidelines and that existing plan management plan direction is adequate in addressing potential grazing impacts to seasonal sage-grouse habitats (Table 3-6, 3-7, 3-8, and 3-9). If grazing is determined to be a causal agent for less than suitable habitat conditions, Forests may implement specific management changes on those respective allotments. It is more appropriate to address these issues at the forest or allotment level rather than through grazing guidelines applied at a regional scale. Monitoring data specific to the Humboldt-Toiyabe National Forest indicate that many riparian areas and mesic meadows in HMAs are not in proper functioning condition or moving toward desired conditions for sage-grouse brood-rearing habitat. Additional plan components are included in the Nevada proposed action to address this issue.

Modify language regarding water developments in HMAs

This standard addressing water developments stated that in PHMAs (CO, ID, UT, NV), IHMAs (ID), and GHMAs (NV), construction was not to be approved unless beneficial to sage-grouse habitat. Limiting approval or construction of water developments only to situations that are beneficial to sage-grouse can preclude the use of water developments as an effective tool to help ensure proper grazing management.

The original intent of this standard was to ensure that construction of water developments would not cause adverse effects to sage-grouse or cause the degradation or loss of sage-grouse habitat, however the standard as written does not communicate that intent clearly. Water developments are a tool that could improve or maintain habitat indirectly over time. The approval and/or the construction of a water development is inherently a site-specific determination, which would be considered in a separate analysis process which would consider effects to biological resources, including greater sage-grouse.

4.5.8 ADAPTIVE MANAGEMENT REVIEW PROCESS

Table 4-10. Adaptive management review process considered in the 2015 GRSF FEIS.

Issue	Considered in 2015 GRSF FEIS
Allow for process for reviewing or reverting to an adaptive management response when causal factor is resolved	Adaptive management triggers and response were analyzed in: Idaho: Alternative D, E, and Proposed Plans; described in Appendix G Utah: Proposed Plans; described in Appendix B Wyoming: Alternatives B, C, D, and Proposed LUP Amendments; described in Appendix D
Ensure federal, state, and local partners are part of the causal factor analysis process Identify process to evaluate and respond to hard and soft trigger adaptive management responses	Adaptive management triggers and response were analyzed in: Nevada: Proposed Plans; described in Chapter 2 (2.7.1) of FEIS

Idaho

The Proposed Action adds clarification to the adaptive management process to more closely align with the State of Idaho’s process. The identification of causal factors and the identification of a reversal process if habitat or populations improve allows for more flexibility and applicability of the adaptive management process. The FS and the State of Idaho, along with partners, would do a causal factor analysis and recommend actions to prevent further declines if there is a soft trigger trip. This would facilitate better coordination and management of greater sage-grouse. Refer to Appendix C.

Nevada

Adaptive management hard and soft triggers would be updated as summarized and described in Table 2-2 and Appendix D. This update would ensure that the FS is utilizing the best available data and decision support tools to guide management at the appropriate spatial scale. Analysis scale, population and habitat warnings and triggers, and the response and monitoring process would be addressed in coordination with USGS, NDOW, USFWS, and others as described in Appendix D.

Impacts on Greater Sage-Grouse and its habitat would be beneficial as a result of this update to adaptive management triggers, providing the ability to detect declining populations and/or habitat and change management on the ground.

Utah

The identification of causal factors and the identification of a reversal process if habitat or populations improve allows for more flexibility and applicability of the adaptive management process. The FS and partners would review the scientific information, complete causal factor analysis, and identify corrective

strategy. If necessary, the FS would also undertake any appropriate plan amendments or revisions. More information regarding the adaptive management strategy can be found in Appendix E.

No appreciable additive impacts are anticipated from updating the adaptive management process as described in Proposed Action. This update would ensure that the FS is utilizing the best available science and decision support tools to guide management at the appropriate spatial scale, thus improving the FS’s assessment and response to changing conditions that could impact greater sage-grouse populations and/or habitat.

Wyoming

Impacts associated with returning greater sage-grouse management to previous management actions once adaptive management action objectives in the interim response strategy have been met would be similar to those identified in Proposed LUP Amendments of the 2015 GRSF FEIS. There would be no change as to the identification of triggers, nor to the application of adaptive management. The only change for adaptive management would be at the implementation level, when the Adaptive Management Working Group identifies a process for returning to previous management. The impacts associated with returning to previous management would be the same as those identified in Proposed LUP Amendments for the 2015 GRSF FEIS. Refer to Appendix F.

4.5.9 TREATMENT OF INVASIVE SPECIES

Table 4-11. Treatment of invasive species considered in the 2015 GRSF FEIS.

Issue	Considered in 2015 GRSF FEIS
Emphasize treatment of invasive plant species in PHMA	Idaho: Alternative D, E Nevada: Alternatives D, E, and Proposed Plan Utah: Alternatives B, D, E1 Wyoming: Alternatives B, C, and D

The Proposed Action includes the addition of desired conditions and management approaches that emphasize invasive plant treatments, with a focus on annual grasses. The impact of invasive species and the effect of treatments on sage-grouse habitat was analyzed in each state 2015 GRSF FEIS and analysis is incorporated by reference. Impacts are similar to those disclosed in the 2015 analysis. The addition of these plan components is to emphasize mapping and treatment of invasive species, which are one the greatest threats to greater sage-grouse.

4.5.10 MODIFYING DISTURBANCE CAPS

Table 4-12. Disturbance cap calculations considered in the 2015 GRSF FEIS.

Issue	Considered in 2015 GRSF FEIS
Calculate the 3% disturbance cap at the BSU level, rather than at BSU and project-level.	Idaho: Alternative A, E

The removal of the project level disturbance cap would allow for the intentional grouping of developments within areas already impacted by discrete anthropogenic disturbances in greater sage-grouse habitat as long as the overall disturbance within the BSU remains below 3 percent. In Idaho, the disturbance in PHMA is estimated to be 0.53% (Chapter 3, Table 3-4), which is well under the 3 percent

BSU scale Disturbance Cap. This is expected to remain low because of the no net habitat loss requirement, use of compensatory mitigation, and the other plan component standards and guidelines relevant to development in PHMA and IHMA. Some areas, especially those with existing development that resulted in fragmented habitat, may be further developed. However, statewide, compensatory mitigation would offset those impacts to greater sage-grouse habitat.

4.5.11 CONSISTENCY WITH THE 2012 PLANNING RULE

Table 4-13. Use of Optional Content in the Plan.

Issue	Considered in 2015 GRSG FEIS
Identification of the use of management approaches	Not considered; plan completed under the 1982 Planning Regulations

The suite of desired conditions, objectives, standards, and guidelines in the LMPA were developed to provide direction for the potential activities that can occur in greater sage-grouse habitat. In addition, management approaches, which are identified as optional content in the plan, were also included. Optional Content in the Plan is discussed at 36 CFR 219.7(f)(2): “A plan may include additional content, such as potential management approaches or strategies and partnership opportunities or coordination activities”. Optional content in the plan is also described in Forest Service Handbook 1909.12, Sec. 22.4 “If used, management approaches would describe the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities developed under the plan. The management approaches can convey a sense of priority and focus among objectives and the likely management emphasis. Management approaches should relate to desired conditions and may indicate the future course or direction of change, recognizing budget trends, program demands and accomplishments. Management approaches may discuss potential processes such as analysis, assessment, inventory, project planning, or monitoring.”

Management approaches are intended as guidance of how to meet the purpose of the amendment for situations that are outside of the decision-making process. Several plan components were identified as management approaches in the DEIS Proposed Action when it was determined that they did not meet the definition of a standard or guideline. In the FEIS, many remained as management approaches, but some were changed back to guidelines, when it was determined that they did more closely meet the definition of a guideline. There is no effect and no reduction in protection to greater sage-grouse or its habitat as a result of identifying a plan component that had been mislabeled and identifying it as a management approach.

4.5.12 NOISE STANDARDS

Table 4-14. Noise Standards.

Issue	Considered in 2015 GRSG FEIS
Specify HMA designations when applying noise standard	Idaho: Alternative E, Proposed Plan Alternative Utah: Alternatives D, E1, E2, and Proposed Plan Alternative Wyoming: Alternatives B, C, and Proposed LUP Amendment

Specify HMA designations when applying noise standard

In Idaho, Utah, and Wyoming, analysis was done specifying HMAs designations for applying the noise standard. For Idaho, it was PHMA and IHMA and for Utah and Wyoming it was PHMA. The specification of HMAs was not included in the FS RODs; they are being included in this amendment to improve implementation of the plan components.

The impacts associated with clarifying that the noise measurement and monitoring would apply only to leks within greater sage-grouse PHMA (and IHMA in Idaho) would have similar impacts as those described under the No Action Alternative for the 2015 GRS G LMPA (Location of analysis is found in Table 4-1, Noise/Soundscape). Project-level noise measurement and monitoring would be done at the time of site-specific environmental review. Impacts of noise on greater sage-grouse have been shown to include temporary displacement of the birds from breeding and nesting habitat, increased stress, and reduced reproductive success. In addition, adverse effects on communication abilities of strutting males and reduced lek attendance may be a result of noise. PHMA are areas that were identified as having the highest conservation values for maintaining sustainable greater sage-grouse populations. Therefore, standards to limit noise in PHMA would reduce displacement of birds from nesting and breeding areas and provide the greatest benefit to greater sage-grouse. The removal of standards to limit noise in GHMA may result in localized, adverse impacts on greater sage-grouse but would not affect greater sage-grouse conservation in Idaho, Utah, and Wyoming.

4.6 INCOMPLETE OR UNAVAILABLE INFORMATION

The Council on Environmental Quality (CEQ) promulgated implementing regulations for NEPA that require a federal agency to identify in an EIS any relevant information that may be incomplete or unavailable for evaluating reasonably foreseeable significant adverse impacts (40 CFR 1502.22). If the information is essential to a reasoned choice among alternatives, it must be included or addressed in an EIS, unless the cost of obtaining such information is exorbitant (40 CFR 1502.22(a)).

The best available scientific information pertinent to the decisions to be made was used in developing the FEIS. The Forest Service has made a considerable effort to acquire and convert resource data into digital format for use in the FEIS, both their own and from outside sources.

Some of the major types of data that are incomplete or unavailable are the following:

- Comprehensive planning area-wide inventory of wildlife and special status species occurrence and condition
- GIS data used for disturbance calculations on private lands
- Site-specific surveys of cultural and paleontological resources
- Number of acres of HMA burned during the 2019 fire year.

For these resources, estimates were made concerning their number, type, and significance, based on previous surveys and existing knowledge.

In addition, some impacts of proposed management actions could not be quantified and instead were

projected in qualitative terms or were described as unknown. Subsequent site-specific, project-level analyses would provide the opportunity to collect and examine site-specific inventory data to determine appropriate application of forest plan level guidance. In addition, the Forest Service and other agencies in the planning area continue to update and refine information used to implement this plan.

4.7 CUMULATIVE EFFECTS ANALYSIS

4.7.1 INTRODUCTION

This section presents the anticipated cumulative impacts on the environment that could occur from implementing the alternatives presented in Chapter 2. A cumulative impact is the impact on the environment that results from the incremental impact of the action, when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions (40 CFR 1508.7). Actions may occur inside or outside habitat management areas (HMAs).

Cumulative impacts can result from individually minor, but collectively significant, actions taking place over time. The cumulative impacts resulting from the implementation of the alternatives in this FEIS may be influenced by other actions, as well as activities and conditions on other public and private lands, including those beyond the planning area boundary. These include the concurrent BLM planning effort to amend resource management plans for BLM field offices and BLM national monuments in Idaho, Nevada, Utah, Colorado, and Wyoming. These were previously amended in September 2015 to incorporate conservation measures to support the continued existence of the greater sage-grouse. As a result, the sum of the effects of these incremental impacts involves determinations that often are complex, limited by the availability of information, and, to some degree, subjective.

4.7.2 ANALYSIS INCORPORATED BY REFERENCE

This FEIS incorporates by reference the analysis in the 2015 GRSG FEISs and the 2016 Sagebrush Focal Areas Withdrawal DEIS. The preparers of these documents comprehensively analyzed the cumulative impacts associated with the planning decisions under consideration in those processes, including the impacts associated with what became the Selected Alternative in the 2015 GRSG RODs.

The 2015 GRSG FEISs evaluated the cumulative impacts associated with the No Action Alternative in this FEIS, as well as the cumulative impacts associated with this FEIS's Proposed Action, which comprises planning decisions evaluated by the 2015 GRSG FEISs. This includes the six state-wide BLM LMPA/EISs occurring in the greater sage-grouse range and similar plan amendment efforts being undertaken by the BLM; therefore, the Proposed Action's effects, including its cumulative effects, are entirely within the range of effects analyzed by the 2015 GRSG FEISs. Refer to Tables 4-1 and 4-2 for a list of environmental consequences incorporated by reference for the No Action Alternative, and other alternatives as applicable.

While the analysis for the 2015 GRSG FEIS is quite recent, the Forest Service has reviewed conditions to verify that they have not changed significantly. The assessment that conditions have not changed significantly is based, in part, on the USGS science review (see Chapter 3), as well as the Forest Service's review of additional past, present, and reasonably foreseeable actions in 2018 and 2019 (See Table 4-16). Since the nature and context of the cumulative effect's scenario has not appreciably changed since 2015, and the 2015 analyses covered the entire range of the greater sage-grouse, the cumulative effects

analysis in the 2015 GRSG FEISs applies to this planning effort and provides a foundation for the Forest Service to identify any additional cumulative impacts.

Table 4-15, below, identifies the resource topic and location of applicable cumulative effects analysis from the 2015 GRSG FEISs. Unless otherwise addressed in this chapter, the cumulative effects of the alternatives analyzed in this FEIS are covered by the 2015 GRSG FEISs. This includes the incremental impacts across the range of BLM and Forest Service lands being amended in concurrent plan amendment efforts.

Cumulative impact analyses from the 2015 GRSG FEISs are hereby incorporated by reference into this FEIS. The location of the applicable cumulative impact analysis on all resources identified from the No Action Alternative are shown in Table 4-15.

Table 4-15. Cumulative effects analysis for the No Action Alternative incorporated by reference.

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
Air Quality	CO	Chapter 5, Air Quality Section 5.15, pages 5-89 to 5-91
	ID	Chapter 4, Introduction, page 4-1, Air Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Air Quality not discussed in detail
	UT	Chapter 5, Air Quality Section 5.5, pages 5-161 to 5-162
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-488 to 4-490
Cultural Resources	CO	Chapter 5, Cultural Resources Section 5.20, pages 5-95 to 5-96
	ID	Chapter 4, Introduction, page 4-1, Cultural Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Cultural Heritage Resources not discussed in detail
	UT	Chapter 5, Cultural Resources Section 5.13, pages 5-173 to 5-174
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-490 to 4-491
Tribal Interests (including Native American Religious Concerns)	ID	Chapter 4, Introduction, page 4-1, Tribal Interests not discussed in detail.
	NV	Chapter 5, Tribal Interests (including Native American Religious Concerns) Section 5.17, pages 5-235 to 5-236
	UT	Chapter 5, Tribal Interests Section 5.25, pages 5-195 to 5-196
Special Status Species - Greater Sage-grouse (and Habitat)	CO	Chapter 5, Special Status Species Greater Sage-grouse, Conclusions, Section 5.4, pages 5-65 to 5-77
	ID	Chapter 5, discussed in detail all areas
	NV	Chapter 5, discussed in detail all areas
	UT	Chapter 5, Special Status Species - Greater Sage-Grouse Section 5.4
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
	ID, NV, UT, WY	<i>Cumulative Wildlife Impacts Section 4.5.9, pages 4-105 to 4-107 (BLM 2016)</i>
Other Special Status Species	CO	Chapter 5, Special Status Species (Other Species of Issue) Section 5.5, page 5-78
	ID	Chapter 4, Introduction, page 4-1, Special Status Species (Other than GRSG) not discussed in detail
	UT	Chapter 5, Other Special Status Species Section 5.10, pages 5-170 to 5-171
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
Soil	CO	Chapter 5, Soil and Water Resources Section 5.14, pages 5-87 to 5-89

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
	ID	Chapter 4, Introduction, page 4-1, Soil Resources not discussed in detail
	NV	Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Soil Section 5.5, pages 5-181 to 5-182
	UT	Chapter 5, Soil Resources Section 5.7, pages 5-164 to 5-165
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-496 to 4-497
Riparian Areas and Wetlands and Water Resources	CO	Chapter 5, Soil and Water Resources Section 5.14, pages 5-87 to 5-89
	ID	Chapter 4, Introduction, page 4-1, Water Resources not discussed in detail
	NV	Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Riparian Areas and Wetlands Section 5.6, pages 5-183 to 5-187 Chapter 5, Water Resources Section 5.16, pages 5-232 to 5-235
	UT	Chapter 5, Water Resources Section 5.8, pages 5-165
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505 to 4-506
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 5, Vegetation (Forest, Rangelands, Riparian and Wetlands, and Noxious Weeds) Section 5.7, page 5-80
	ID	Chapter 5, Vegetation Section 5.3.1, pages 5-156 to 5-159
	NV	Chapter 5, Spread of Invasive Plants Section 5.1.6, pages 5-23 to 5-25 Chapter 5, Conifer Encroachment Section 5.1.6, pages 5-25 to 5-26 Chapter 5, Spread of Invasive Plants Section 5.1.10, pages 5-72 to 5-74 Chapter 5, Conifer Encroachment Section 5.1.10, pages 5-74 to 5-75 Chapter 5, Spread of Invasive Plants Section 5.1.14, pages 5-105 to 5-106 Chapter 5, Conifer Encroachment Section 5.1.14, pages 5-105 to 5-107 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Vegetation Section 5.4, pages 5-179 to 5-180
	UT	Chapter 5, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 5.9, pages 5-165 to 5-169
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource (Forestry) Section 4.22, page 4-491; (Vegetation) Section 4.22, pages 4-504 to 4-505
	CO	Chapter 5, Fish and Wildlife, Section 5.3, page 5-12
	ID	Chapter 4, Introduction, page 4-1, Fish and Wildlife not discussed in detail
Fisheries and Wildlife	NV	Chapter 4, Introduction 4.1, page 4-2, Fish and Wildlife not discussed in detail
	UT	Chapter 5, Fish and Wildlife Section 5.11, pages 5-171 to 5-172
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507 to 4-508
	CO	Chapter 5, Wild Horse Management Section 5.12, page 5-86
	ID	Chapter 5, Wild Horse and Burro Section 5.3.2, pages 5-159 to 5-160
Wild Horse and Burros	NV	Chapter 5, Wild Horse and Burros Section 5.7, page 5-187
	UT	Chapter 5, Wild Horse and Burros Section 5.12, pages 5-172 to 5-173
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-506 to 4-507
	CO	Chapter 5, Paleontological Resources Section 5.21, pages 5-96 to 5-97
	ID	Chapter 4, Introduction, page 4-1, Paleontological Resources not discussed in detail
Paleontological Resources	NV	Chapter 4, Incomplete or Unavailable Information Section 4.3.2, page 4-6

Related Resource Topic	State	Location in 2015 GRSF FEIS or 2016 DEIS ¹
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, page 4-494
Visual Resources	CO	Chapter 5, Visual Resources Section 5.17, pages 5-92 to 5-92
	ID	Chapter 4, Introduction, page 4-1, Visual Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Visual Resources not discussed in detail
	UT	Chapter 5, Visual Resources Section 5.14, page 5-174
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505
Wildland Fire and Fuel's Management	CO	Chapter 5, Wildland Fire Ecology and Management Section 5.8, pages 5-80 to 5-82
	ID	Chapter 5, Wildland Fire Section 5.3.3, pages 5-160 to 5-161
	NV	Chapter 5, Wildfire Section 5.1.6, pages 5-20 to 5-23
		Chapter 5, Wildfire Section 5.1.10, pages 5-70 to 5-72
		Chapter 5, Wildfire Section 5.1.14, pages 5-103 to 5-105
		Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140
Chapter 5, Wildland Fire and Fire Management Section 5.8, pages 5-188 to 5-192		
UT	Chapter 5, Wildland Fire Management 5.15, pages 5-174 to 5-176	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507; 4-547 to 4-548; 4-571 to 4-572	
Lands with Wilderness Characteristics	CO	Chapter 5, Lands with Wilderness Characteristics Section 5.18, pages 5-93 to 5-94
	ID	Chapter 5, Lands with Wilderness Characteristics Section 5.3.12, pages 5-173 to 5-174
	UT	Chapter 5, Wilderness Characteristics Section 5.16, pages 5-176 to 5-178
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-81 to 4-89
Special Designations	CO	Chapter 5, Special Designations Section 5.13, pages 5-86 to 5-87
	ID	Chapter 5, Special Designations Section 5.3.11, pages 5-172 to 5-173
	NV	Chapter 5, Special Designations - Areas of Critical Environmental Concern Section 5.15, page 5-231
		Chapter 4, Introduction 4.1, page 4-2, Special Designations not discussed in detail
	UT	Chapter 5, Special Designations Section 5.23, pages 5-190 to 5-191
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-497 to 4-498	
Recreation	CO	Chapter 5, Recreation and Travel Management Section 5.10, pages 5-83 to 5-85
	ID	Chapter 5, Recreation Section, pages 5-47 to 5-50
	NV	Chapter 5, Recreation Section 5.1.6, pages 5-58 to 5-61
		Chapter 5, Recreation Section 5.1.10, pages 5-97 to 5-99
		Chapter 5, Recreation Section 5.1.14, pages 5-128 to 5-130
UT	Chapter 5, Recreation Section 5.18, page 5-179	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494 to 4-495; 4-547 to 4-548; 4-572 to 4-575	
Comprehensive Travel Management	CO	Chapter 5, Recreation and Travel Management Section 5.10, pages 5-83 to 5-85
	ID	Chapter 5, Travel and Transportation Section 5.3.5, pages 5-164 to 5-165
	NV	Chapter 5, Transportation and Travel Management Section 5.11, pages 5-199 to 5-200
	UT	Chapter 5, Comprehensive Travel and Transportation Management Section 5.19, pages 5-180 to 5-180
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, page 4-504

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS¹
Livestock Grazing (Range Management)	CO	Chapter 5, Range Management Section 5.11, pages 5-85 to 5-86
	ID	Chapter 5, Livestock Grazing Section 5.3.4, pages 5-162 to 5-164
	NV	Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.6, pages 5-33 to 5-44
		Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.10, pages 5-81 to 5-85
		Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.14, pages 5-114 to 5-119
		Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140
UT	Chapter 5, Livestock Grazing/Range Management Section 5.17, pages 5-177 to 5-179	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-492 to 4-493; 4-540 to 4-547; 4-566 to 4-571	
Land Use and Realty	CO	Chapter 5, Lands and Realty Section 5.6, page 5-79
	ID	Chapter 5, Lands and Realty Section 5.3.6, pages 5-165 to 5-168
	NV	Chapter 5, Infrastructure Section 5.1.6, pages 5-26 to 5-31
		Chapter 5, Infrastructure Section 5.1.10, pages 5-75 to 5-78
		Chapter 5, Infrastructure Section 5.1.14, pages 5-108 to 5-111
		Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140
UT	Chapter 5, Land Use and Realty Section 5.12, pages 5-200 to 5-207	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-491 to 4-492	
Renewable Energy	CO	Chapter 5, Lands and Realty Section 5.6, page 5-79
	ID	Chapter 5, Renewable Energy, pages 5-27 to 5-29; 5-52; 5-56; 5-69; 5-71; 5-81; 5-167; 5-169; 5-170 to 5-175
	NV	Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.6, pages 5-31 to 5-33
		Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.10, pages 5-78 to 5-81
		Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.14, pages 5-111 to 5-114
		Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140
UT	Chapter 5, Renewable Energy Section 5.13, pages 5-207 to 5-211	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-537 to 4-540; 4-563 to 4-565	
Solid Minerals	ID	Chapter 5, Nonenergy Leasable Section 5.3.10, page 5-172
	NV	Chapter 5, Coal Section 5.1.6, pages 5-50 to 5-51
		Chapter 5, Coal Section 5.1.14, page 5-123
		Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140
	UT	Chapter 5, Solid (Nonenergy) Leasable Minerals Section 5.14.4, pages 5-227 to 5-231
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-529 to 4-530; 4-556 to 4-557	
Fluid Minerals	ID	Chapter 5, Leasable Minerals Section 5.3.7, pages 5-168 to 5-170
	NV	Chapter 5, Oil and Gas Section 5.1.6, pages 5-44 to 5-48 Chapter 5, Geothermal Section 5.1.6, pages 5-49 to 5-50 Chapter 5, Oil and Gas Section 5.1.10, pages 5-86 to 5-89

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
		Chapter 5, Geothermal Section 5.1.10, pages 5-89 to 5-90 Chapter 5, Oil and Gas Section 5.1.14, pages 5-119 to 5-123 Chapter 5, Geothermal Section 5.1.14, pages 5-123 to 5-124 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Fluid Minerals Section 5.14.1, pages 5-211 to 5-218
	UT	Chapter 5, Fluid Minerals Section 5.22.1, pages 5-182 to 5-184
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-524 to 4-529; 4-552 to 4-556
Leasable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83
	ID	Chapter 5, Nonenergy Leasable Section 5.3.10, page 5-172
	NV	Chapter 5, Nonenergy Leasable Section 5.1.6, pages 5-56 to 5-57 Chapter 5, Nonenergy Leasable Section 5.1.10, pages 5-95 to 5-97 Chapter 5, Nonenergy Leasable Section 5.1.14, page 5-128
	UT	Chapter 5, Nonenergy Leasable Section 5.22.2, pages 5-184 to 5-186
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-534 to 4-553; 4-560 to 4-563
Locatable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83
	ID	Chapter 5, Locatable Minerals Section 5.3.8, pages 5-170 to 5-171
	NV	Chapter 5, Locatable Minerals Section 5.1.6, pages 5-53 to 5-56 Chapter 5, Locatable Minerals Section 5.1.10, pages 5-93 to 5-95 Chapter 5, Locatable Minerals Section 5.1.14, pages 5-126 to 5-128 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Locatable Minerals Section 5.14.2, pages 5-218 to 5-223
	UT	Chapter 5, Locatable Minerals Section 5.22.4, pages 5-186 to 5-188
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-532 to 4-534; 4-558 to 4-559
Salable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83
	ID	Chapter 5, Mineral Materials Section 5.3.9, pages 5-171 to 5-171
	NV	Chapter 5, Mineral Materials Section 5.1.6, pages 5-51 to 5-53 Chapter 5, Mineral Materials Section 5.1.10, pages 5-91 to 5-93 Chapter 5, Mineral Materials Section 5.1.14, pages 5-124 to 5-126 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Mineral Materials Section 5.14.3, pages 5-223 to 5-227
	UT	Chapter 5, Mineral materials Section 5.22.5, pages 5-188 to 5-189
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-530 to 4-532; 4-557 to 4-558
Social and Economic Conditions and Environmental Justice	CO	Chapter 5, Social and Economic Conditions (Including Environmental Justice) Section 5.22, pages 5-97 to 5-103
	ID	Chapter 5, Social and Economic Conditions (Including Environmental Justice) Section 5.3.13, pages 5-174 to 5-177
	NV	Chapter 5, Social and Economic Impacts (including Environmental Justice) Section 5.19, pages 5-238 to 5-241
	UT	Chapter 5, Social and Economic Impacts (Including Environmental Justice) Section 5.24, pages 5-191 to 5-195
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-495 to 4-496

Related Resource Topic	State	Location in 2015 GRSG FEIS or 2016 DEIS ¹
Climate Change	CO	Chapter 5, Climate Change Section 5.16, pages 5-91 to 5-92
	ID	Chapter 5, Climate Change, pages 5-5 to 5-6; 5-17 to 5-18, 5-160 to 5-163; 5-167; 5-172 to 5-173
	NV	Chapter 5, Climate Change Section 5.18, pages 5-236 to 5-238
	UT	Chapter 5, Climate Change Section 5.6, pages 5-163 to 5-164
	WY	Chapter 4, Air Quality Impacts Associated with Non-Oil and Gas Development Activities Section 4.2.5, pages 4-57; 4-491; 4-523 to 4-524; 4-544; 4-551;
Noise/Soundscape	CO	Chapter 5, Soundscape Section 5.19, page 5-94 to 5-95
	ID	Chapter 5, Wildfire, page 5-18 Chapter 5, Infrastructure, page 5-23 Chapter 5, Renewable Energy, page 5-27 Chapter 5, Oil and Gas, pages 5-36 to 5-37 Chapter 5, Geothermal, page 5-40 Chapter 5, Locatable Minerals, page 5-43 Chapter 5, Recreation, pages 5-47 to 5-48; 5-78 Chapter 5, Fluid Minerals, page 5-60 Chapter 5, Special Designations, pages 5-172 to 5-173 Chapter 5, Lands with Wilderness Characteristics, page 5-173
	NV	Chapter 5, Noise, pages 5-20; 5-27; 5-31; 5-44; 5-47; 5-49; 5-50; 5-53; 5-58 to 5-59; 5-97; 5-129; 5-198
	UT	Chapter 5, Noise, pages 5-47 to 5-48; 5-53; 5-57; 5-64; 5-67 to 5-68; 5-70 to 5-71; 5-74; 5-77 to 5-78; 5-82; 5-87; 5-89; 5-97; 5-99 to 5-100; 5-102; 5-105 to 5-106; 5-111; 5-114 to 5-115; 5-114; 5-118; 5-121; 5-125; 5-133; 5-134; 5-177; 5-179
	WY	Chapter 4, Cumulative Impacts Section 4.22, pages 4-495 to 4-573

¹Information incorporated by reference for Table 4-15 is found in the following documents:

- Northwest Colorado Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/36511/58678/63741/NWCO_5_FEIS_201506_508.pdf)
- Idaho and Southwestern Montana Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/31652/58565/63628/09_-_ID_swMT_FEIS_Chapter_5.pdf)
- Nevada and Northeastern California Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/21152/58711/63774/10_Volume_3_Chapter_5_NVCA_GRSG.pdf)
- Utah Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=99423>)
- Wyoming Greater Sage-Grouse Land Use Plan Amendment and Final EIS 2015, Chapter 4 (https://eplanning.blm.gov/epl-front-office/projects/lup/9153/58493/63913/11_Chapter-4_Environmental-Consequences_FEIS_052115.pdf)
- Sagebrush Focal Area Withdrawal Draft EIS 2016 (https://eplanning.blm.gov/epl-front-office/projects/lup/103347/143428/176389/SFA_DEIS_Main_Text.pdf)

4.7.3 PAST, PRESENT, AND REASONABLY FORSEEABLE ACTIONS

Approximately 350 species of plants and wildlife rely on sagebrush steppe ecosystems, coexist with greater sage-grouse, and may be similarly affected by development or disturbance. Nothing in the considered alternatives would lessen the Forest Service’s authority or responsibility to provide for the needs of threatened, endangered, and sensitive plants and animals, as described in Forest Service land management plans, policies, and laws, including Forest Service Manual 2600, the Endangered Species Act, and NFMA.

Increased flexibility for other uses within greater sage-grouse habitat do not necessarily increase potential impacts on other wildlife or plant species. Site-specific NEPA analyses, including an evaluation of impacts on special status species, is required for on-the-ground projects within the planning area.

In addition to tiering to the analysis in the 2015 GRSG FEISs and 2016 DEIS (listed in Table 4-15), other anticipated incremental impacts are discussed below in association with planning issues and related resource topics carried forward and analyzed in this FEIS.

While the Proposed Action removes the greater sage-grouse specific language, it emphasizes wildlife/special status species standards that would include greater sage-grouse, as long as they retain sensitive species status. As greater sage-grouse will continue to be considered at the implementation level with site-specific analysis, following management prescriptions analyzed in the 2014 and 2015 GRSG FEISs, no additive impact of this change is anticipated.

Table 4-16 represents the past, present, and reasonably foreseeable actions across the entire range for greater sage-grouse, which are separated by state. When assessing the cumulative impact of the FEIS on greater sage-grouse and its habitat, there are multiple geographic scales that the Forest Service has considered. Forest Service projects being analyzed or completed are listed on the Forest Service’s Schedule of Proposed Actions (SOPA, <https://www.fs.fed.us/sopa/>). Specific projects that could contribute to cumulative impacts are included in Table 4-16 under the applicable state. This table also includes BLM and NRCS projects identified in the BLMs 2018 DEIS and 2018 FEIS.

Further, the entire sum of past, present, and reasonably foreseeable actions listed below represent cumulative effects across the range of greater sage-grouse habitat and management areas. These effects are important to consider for future management of the species as a whole and are not solely being analyzed at the local or state level. That is why all ongoing Forest Service LMPAs/EISs refer to past, present, and reasonably foreseeable actions across states undergoing a plan amendment.

The increased flexibility in these amendments is not expected to result in a large increase in development proposals on public land. Similarly, the increased protections from the 2015 GRSG FEISs have not resulted in a large decrease in ROW applications or an increase in rejected applications; therefore, the changes proposed under the Proposed Action and the State of Utah Alternative are not expected to result in large changes to the rate of development in the five states or in their economy.

Table 4-16. Greater sage-grouse range-wide impacts from past, present, and reasonably foreseeable future actions.

Action	Location and Activity	Cumulative Effects
General – Past projects on National Forest System (NFS) lands in the planning area		
Data Summarized From: Forest Service Greater Sage-grouse Monitoring Annual Reports, First and Second Year Summaries: September 2015-September 2017. Information is being gathered for FY2018.		

Action	Location and Activity	Cumulative Effects
Greater sage-grouse conservation - Fence Clips/Tags/Markers	USFS, Bridger-Teton, Caribou-Targhee, Humboldt-Toiyabe, and Medicine Bow-Routt National Forests (NFs): Past habitat restoration and improvement projects (fiscal years ¹ 2015, 2016, 2017).	79,641 acres of habitat improvement projects benefiting GRSG on NFS lands. GRSG are most at-risk of hitting fences that are close to leks, spring courtship dancing grounds, where males gather and fly in before dawn in the darkness. The flatter the landscape, the harder it is for the sage grouse to see fences.
Greater sage-grouse conservation - Fence Removal	USFS, Ashley, Bridger-Teton, Humboldt-Toiyabe, and Uinta-Wasatch-Cache NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	35,208 acres and 2 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Fence Enclosures	USFS, Caribou-Targhee and Humboldt-Toiyabe NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	21,927 acres of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Install gates to improve wildlife habitat and water quality	USFS, Sawtooth NF: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	8 Miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Wildlife Habitat Improved (Includes Game Improvements, Conifer/Pinion/Juniper/ Invasive Tree Removal/ GRSG Habitat Improvement/ Thinning)	USFS, Ashley, Boise, Caribou-Targhee, Dixie, Fishlake, Humboldt-Toiyabe, Manti-La Sal, Medicine Bow-Routt, Salmon-Challis, Sawtooth, and Uinta-Wasatch-Cache NFs: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	60,177 Acres and 4 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Non-native/Invasive/ Noxious Weed Treatments	USFS, Boise, Bridger-Teton, Humboldt-Toiyabe, Medicine Bow-Routt, and Salmon-Challis NFs: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	14,172 acres and 55 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Native Plant Treatment and Restoration	USFS, Boise, Bridger-Teton, and Sawtooth NFs: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	2,121 acres of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Prescribed Fire	USFS, Ashley, Bridger-Teton, and Salmon-Challis NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	1,609 acres of habitat improvement projects benefiting GRSG on NFS lands.

¹ A fiscal year is from October 1 to September 30.

Action	Location and Activity	Cumulative Effects
Greater sage-grouse conservation - Connector spur, spur, road decommission, User-created spur road barrier and obliteration, Road obliteration, road improvement	USFS, Bridger-Teton, Salmon-Challis, Sawtooth, and Uinta-Wasatch-Cache NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	30,330 acres and 2.2 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Spring, Gully, Meadow, Wetland, Riparian improvement and rehabilitation	USFS, Bridger-Teton, Caribou-Targhee, Dixie, Humboldt-Toiyabe, Sawtooth NFs: Past habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, 2017).	3,100 acres and 0.27 miles of habitat improvement projects benefiting GRSG on NFS lands.
General – Activities taking place in multiple Agencies, Regions, or Forests		
Wildland Fires	National Forest System lands located in: California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming: Past acres burned on National Forest System lands since the 2015 GRSG ROD was signed (i.e., 2015 to 2018).	<p>Since the ROD was signed in 2015 (i.e., 2015 to 2018), 5,362,774 acres of GRSG habitat have burned for all administrative agencies tracked by the National Interagency Fire Center in 11 states. During that timeframe, 368,145 acres of GRSG HMA burned on NFS lands in eleven states. The number of NFS lands burned represents less than 1% of the GRSG acres burned in eleven states on various agency lands.</p> <p>From 2016 to 2018, approximately 215,295 GRSG acres have burned in the five states in the planning area. Making the percentage even lower for the five states included in the analysis area for this FEIS. Wildland fires continue to be a threat to GRSG and its habitat.</p> <p>As a result of wildfires, post-fire rehabilitation and Burned Area Emergency Response (BAER) activities have taken place since the ROD was signed in 2015. However, it is too soon to determine the effectiveness of rehabilitation. (See tables 4-4 to 4-6 for additional fire data).</p> <p>Wildland fires will likely occur in Fiscal Year 2019; however, acres of GRSG HMAs burned will not be known until data is compiled in the winter of 2019.</p>
Continued oil and gas development	USFS, BLM, and Other Agencies: Disturbance and fragmentation	Development is consistent with the reasonably foreseeable development scenarios analyzed as part of the 2015

Action	Location and Activity	Cumulative Effects
		GRSG FEIS and the associated LMPs. Additional impacts are expected to be within the range analyzed in 2015 GRSG FEIS cumulative impacts analysis.
Livestock grazing permit reissuance, allotment improvements (cattle and sheep)	USFS, Forests in the Planning Area: Ongoing projects.	Forests in each state are reissuing grazing permits, authorizing improvements to fences, riparian areas, and waterlines, etc. Refer to the SOPA for a list of forests and current grazing projects: https://www.fs.fed.us/sopa/ Impacts are covered in the cumulative impacts of the 2015 GRSG FEIS as reasonably foreseeable. Some actions, such as projects that result in better livestock distribution, may result in increased habitat effectiveness to GRSG.
Travel management	USFS and BLM: Ongoing projects. Some forests and BLM field offices are considering area-wide travel route designations in Travel Management plans.	These actions represent implementation of objectives from 2015 GRSG LMPA to prioritize travel management in GRSG habitat. Impacts are covered in the cumulative impacts of the 2015 GRSG FEIS as reasonably foreseeable.
Habitat Restoration Programmatic EIS	BLM: Great Basin-wide programmatic habitat restoration project	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments.
Fuel Breaks Programmatic EIS	BLM: Great Basin-wide programmatic habitat fuel break project	Programmatic document effects will be realized when the field implements projects. This action will help to reduce the loss of habitat due to catastrophic fires.
Northwestern Colorado		
Yampa Valley Electric Association, Columbine North, Powerline Realignment Categorical Exclusion (CE)	USFS, Medicine Bow-Routt NF, Hahns Peak/Bears Ears Ranger District (RD) (CO): Permit amendment to authorize installation of 4,553 feet of new underground powerline.	This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Middle Fork Prescribed Fire Project CE	USFS, Medicine Bow-Routt NF, Parks RD: Prescribed fire treatments to restore ecological function and future resilience to areas that have experienced insect and disease infestations.	This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Parkview Creek Vegetation Management Project CE	USFS, Medicine Bow-Routt NF, Parks RD: Up to 3,000 acres of mechanical vegetation treatment.	This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
Little Rock Vegetation Project EA	USFS, Medicine Bow-Routt NF, Yampa RD: Vegetation restoration and harvest, fuels treatment, habitat improvement, watershed health activities.	This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Northwest Colorado Programmatic Vegetation Treatment Environmental Assessment (EA) and Decision (DOI-BLM-CO-N000-2017-0001-EA)	BLM-administered lands in Colorado: Programmatic NEPA document for streamlining habitat treatments in sagebrush	Programmatic document effects will be realized when the field implements projects. This action will help to reduce the loss of habitat due to catastrophic fires and improve GRSG habitat.
Idaho		
Salmon-Challis Forest Plan Revision EIS	USFS, Salmon-Challis NF: The Salmon-Challis National Forest is revising and updating the 1987 Challis and the 1988 Salmon Land and Resource Management Plan (Forest Plan).	This is a programmatic document. Effects will be realized when the field implements projects.
Boise & Sawtooth Forest-wide Invasive Plant Species Treatments EIS	USFS, Boise and Sawtooth NFs (ID and UT): Analyze and disclose the effects of treating invasive and noxious weeds forest-wide on the Boise & Sawtooth National Forests.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.
Targhee National Forest Lynx Analysis Units EIS	USFS, Caribou-Targhee NF, Palisades, Teton Basin, Dubois, Ashton/Island Park RDs (ID, WY): Utilize existing protocols and data to establish Lynx Analysis Units (LAUs) on the Targhee portion of the Forest. The LAUs and identified lynx habitat will be subject to the Northern Rockies Lynx Management Direction.	Programmatic document, effects will be realized when the field implements projects.
Black Pine Exploration Plan of Operations EA	USFS, Sawtooth NF, Minidoka RD: Pilot Gold (USA), a subsidiary of Liberty Gold, plans to drill reverse circulation and/or core drill holes from 371 proposed drill sites for the purposes of exploring for gold mineralization at the former Black Pine Mine. Acres of new disturbance is estimated at 69 acres. Disturbance associated with opening reclaimed areas is estimated at 37 acres.	Decision signed 12/12/2018. This project is located in General HMA. Activities associated with exploration could result in loss of GRSG GHMA and vehicle mortality due to increased traffic. Most of these impacts should be removed by forest plan components identified in the selected alternative.
Stibnite Gold Plan of Operations EIS	USFS, Boise NF, Cascade RD and Krassel RDs: The Forest is processing a plan of operations for open pit mining, processing, new road construction, utility upgrades, reclamation, and restoration at the Stibnite mine site.	There are no GRSG HMAs on the Krassel or Cascade RD. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
2018 CuMo Exploration Project EA	USFS, Boise NF, Idaho City RD: Locatable minerals exploration. Proposal to drill 259 new exploratory holes to retrieve core samples. Project will construct about 13.3 miles of new temporary road and use of about 4.7 miles existing unauthorized road as temporary roads.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
Kilgore Project EA	USFS, Caribou-Targhee NF, Dubois RD: A multi-year mineral exploration program within valid mining claims near Kilgore, Idaho.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Dairy Syncline Phosphate Mine EIS	USFS, Caribou-Targhee NF, Soda Springs RD: Analyze a proposed new phosphate mine plan and associated projects and infrastructure on existing lease I-28115 and I-0258, encompassing approximately 1,672 acres on lease and approximately 1,058 acres off lease. Considers land exchange proposal.	This project is located in General HMA. Activities associated with development of the lease could result in loss of GRSG GHMA and vehicle mortality due to increased traffic. Most of these impacts should be removed by forest plan components identified in the selected alternative.
East Smoky Panel Mine EIS	USFS, Caribou-Targhee NF, Soda Springs RD: Analyze a proposed phosphate mine expansion plan and associated projects and infrastructure at the existing J.R. Simplot Company's Smoky Canyon Mine on leases I-26843, I-012890, and I-015259. 710 acres of disturbance on lease, 164 acres off lease. 527 acres of disturbance on forest, 322 off forest	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Colson Copper Exploration Drilling Project CE	USFS, Salmon-Challis NF, North Fork RD: Reopening of 2,400 feet of previously reclaimed road, construction of four drill pads, and core drilling of up to 6 holes at each pad to delineate anticipated mineralization.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Colson Cobalt-Copper Drilling CE	USFS, Salmon-Challis NF, North Fork RD: Approve a Plan of Operations to explore for locatable minerals, with added project design features and monitoring requirements to protect surface resources.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Arnett Creek Drilling EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Drill on up to 53 drill sites. Total disturbance up to 15 acres. Operations are anticipated to start in summer 2018 with final reclamation by October 2020. Existing, undesignated mine roads and temporary roads would be used and decommissioned.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Iron Creek Trenching and Drilling Project EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: The Operator proposes to trench approximately 1,435 linear feet, drill on up	Decision signed 04/02/2019. There are no GRSG HMAs located in the project

Action	Location and Activity	Cumulative Effects
	to six drill pads, and remove up to 10 tons of sample material removed for further analysis.	area. Therefore, this project would not contribute to cumulative effects.
Moose Creek Mineral Exploration Drilling Project CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Analyze a proposal to conduct exploration drilling on 20 sites, construct less than 1 mile of new, temporary road, and draft water from Moose Creek.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Rabbit Creek Mineral Exploration Drilling Project CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Analyze a proposal to conduct mineral exploration drilling on 27 sites, accessing the sites with a helicopter and 6 miles of new, temporary road, and drafting water from Napias Creek.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Retrack Placer Project CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Analyze a proposal to placer up to 29 acres for gold in the Napias Creek area on NFS lands under open to mineral entry the 1872 Mining Law, as amended.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Slippery Creek Exploration Drilling CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Analyze a plan proposing to drill up to 22, 800 to 1,200-foot holes at up to 11 out of 23 proposed drilling locations using a diamond core helicopter portable drilling rig.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Big Creek Geothermal Leasing Project EIS	USFS, Salmon-Challis NF, Salmon-Cobalt RD: The Forest proposes to consent with stipulations to BLM issuance of three contiguous, noncompetitive geothermal leases.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Valley County Quarry Development CE	USFS, Boise NF, Cascade RD: Analyze request from Valley County to develop and operate a quarry on NFS lands. Material would be used for road maintenance along backcountry roads. Quarry development would coincide with reclamation of the Valdez Pit.	Decision signed 2/28/2019. There are no GRSG HMAs on the Cascade RD. Therefore, this project would not contribute to cumulative effects.
IPC Warm Lake Feeder Line Relocation CE	USFS, Boise NF, Cascade RD: Analysis to authorize Idaho Power Company to reroute approximately 2.49 miles of existing overhead 7.2-kilovolt (kV) distribution line with approximately 2.74 miles of single-phase underground line.	There are no GRSG HMAs on the Cascade RD. Therefore, this project would not contribute to cumulative effects.
Crow Creek Pipeline Project Lower Valley Energy Natural Gas Pipeline EIS	USFS, Caribou-Targhee NF, Montpelier RD (ID, WY): Construct a 50-mile, eight-inch natural gas pipeline between Bear Lake County and Afton, Wyoming. Approximately 20 miles of this pipeline would be on NFS lands.	Approximately 3 miles of this pipeline is located in GRSG HMA on NFS lands. Activities associated with the pipeline may result in the removal of vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. However, most of these impacts should

Action	Location and Activity	Cumulative Effects
		be removed by forest plan components identified in the selected alternative.
Idaho Power Company (IPC) - Horseshoe Bend to Garden Valley Project EA	USFS, Boise NF, Idaho City RD, Emmett RD: Issuance of a FLPMA permit authorizing IPC to use NFS lands for the purpose of operating and maintaining a 34.5-kilovolt distribution power line. The line would run from Horseshoe Bend to Placerville and Placerville to Garden Valley.	There are no GRSG HMAs on the Idaho City or Emmett RDs. Therefore, this project would not contribute to cumulative effects.
Century Link Fiber Optic Cable Project 2018 CE	USFS, Boise NF, Idaho City RD: CenturyLink proposes to add 20 miles of fiber optic cable, approximately 6.0 miles of which crosses NFS lands; new cable on NFS lands will be installed in/along existing roads in Grimes Greek, Idaho City and Centerville areas.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
Bonneville Power Administration Windy Devil Annex Communication Site CE	USFS, Salmon-Challis NF, Lost River RD: Construction of new 80-foot self-supporting tower/structure and attached whip-style antenna, 20X50-foot building, and two 3,000 gallon propane tanks.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Buckboard Gulch Sage-Grouse Habitat Improvement CE	USFS, Caribou-Targhee NF, Dubois RD: Removes encroaching Douglas fir in 2,400 acres of sagebrush steppe to enhance and restore habitat for Greater Sage-Grouse, pygmy rabbits, and sagebrush songbirds of conservation concern.	This project will provide opportunities to improve, enhance, and restore 2,400 acres of GRSG habitat through vegetation treatments. This project and other habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Black Mountain Blowdown CE	USFS, Caribou-Targhee NF, Ashton/Island Park RD: To harvest portions of mature stands that were damaged by a wind event. The project will also include masticating vegetative material within 300' along the Fish Creek and Baker Draw Roads within the treatment units.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Salmon-Challis Conifer Encroachment CE	USFS, Salmon-Challis NF, All Units: Reduce conifers encroaching into sage steppe GRSG habitat. The project would authorize approx. 199,500 acres and treat roughly 3,000 acres per year. Trees would be hand felled, lopped, and/or piled for burning.	This project will provide opportunities to improve, enhance, and restore approximately 199,500 acres (roughly 3,000 per year) of GRSG habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Annie Rooney Salvage CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Harvest of post-fire dead and imminently dead Douglas-fir and other timber. Sanitation harvest of Douglas fir green sawtimber where the threat of mortality from Douglas-fir beetle is present.	This project is adjacent to GRSG HMA, but the project will occur in timbered areas. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
Daugherty Gulch Vegetation Project CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Implementing prescribed fire by hand and aerial ignition over portions of the 2,242 acre project area.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Wino Basin Vegetation Project CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Proposed actions include implementing prescribed fire by hand and aerial ignition over some of the 17,000 acre project area. Desired fire effects will be a patchy mosaic of burned vegetation including trees, shrubs and grasses across the landscape.	This project contains GRSG HMA, but the project design will result in beneficial cumulative effects to GRSG and its habitat.
Sheep Creek Vegetation Improvement Project CE	USFS, Salmon-Challis NF, North Fork RD: Use prescribed fire and mechanical fuels reduction to improve timber stand health, vigor, and resiliency, as well as improve wildlife habitat.	There are no GRSG HMAs on the North Fork RD. Therefore, this project would not contribute to cumulative effects.
Toponce Habitat Enhancement CE	USFS, Caribou-Targhee NF, Westside RD: Improve and maintain aspen and mountain brush habitat for wildlife benefits and manage forest fuels near multiple ownership jurisdictions.	Decision signed 5/1/2018. This project will provide opportunities to improve and maintain habitat for wildlife through vegetation treatments and manage forest fuels. These habitat improvement projects will result in beneficial cumulative effects for wildlife.
Goose Creek Sage-Grouse Habitat Restoration Project EA	USFS, Sawtooth NF, Minidoka RD: Proposing approximately 18,488 acres of hand thinning and 13,816 acres of mechanical treatment of juniper to maintain and improve sage-grouse habitat in the Goose Creek area of the Cassia Div.	Decision signed 1/29/2019. This project will provide opportunities to improve, maintain, and restore 32,304 acres of GRSG habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Pahsimeroi Aspen Restoration Project CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Cut conifers from aspen stands by either hand (chainsaw) cutting or girdling. To protect natural resources, the cutting of conifers will be done by hand with chainsaws. No roads, temporary roads or any type of ground disturbing activities will occur.	Decision signed 3/5/2018. GRSG HMA is present within the project area. This project will provide aspen restoration. Cutting of conifers will be done by hand, and no ground disturbing activities will occur. Conifer removal would improve GRSG habitat and open areas to GRSG that were previously unavailable because of juniper encroachment. Therefore, this project will result in beneficial cumulative effects and will provide beneficial impacts to aspen restoration on the district.
Withington Aspen Improvement Project CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Remove small diameter (<4 inch) conifers out of and within 100 feet of 210 acres of aspen clones in the project area. Conifers would be cut, lopped, and	Decision signed 4/18/2018. There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
	scattered on site. No ground disturbing equipment would be used.	
Albion-Raft River Aspen Habitat Restoration Project CE	USFS, Sawtooth NF, Minidoka RD (ID, UT): Restore aspen ecosystems in key wildlife habitats. Implementation of proposed treatments would progress towards meeting the Sawtooth National Forest Plan goals and IDFG habitat goals.	Decision signed 2/11/2019. There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
French Hazard WUI EA	USFS, Boise NF, Cascade RD: Create or enhance defensible space for suppression resources, restore vegetative conditions more reflective of fire-adapted ecosystems, reduce hazardous fuels, and minimizing risks to public health and safety.	Decision signed 10/15/2018. There are no GRSG HMAs on the Cascade RD. Therefore, this project would not contribute to cumulative effects.
Rowley Canyon Wildlife Habitat Enhancement CE	USFS, Caribou-Targhee NF, Westside RD: Utilizing hand felling and prescribed burning, juniper stands would be treated to ensure we are meeting habitat requirements for important wildlife species, such as elk, mule deer, ruffed grouse, sharp tail grouse.	This project will provide opportunities to improve and maintain habitat for wildlife through vegetation treatments and manage forest fuels. These habitat improvement projects will result in beneficial cumulative effects for wildlife.
Teton Canyon Hazardous Fuels Reduction Project EA	USFS, Caribou-Targhee NF, Teton Basin RD: Reduce hazardous fuels adjacent to private property, the town of Alta, the Alta municipal water supply, the Treasure Mountain Boy Scout Camp, Teton and Reunion Flats Campgrounds. Improve access along Teton Canyon Road for public safety.	Decision signed 06/29/2018. There are no GRSG HMAs on the Teton Basin RD. Therefore, this project would not contribute to cumulative effects.
John Wood Forest Management Project EIS	USFS, Caribou-Targhee NF, Soda Springs RD: The Forest Service proposes to conduct forest vegetation management activities (mechanical timber harvest and pre-commercial thinning) and road work (temporary and permanent).	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Bridge Creek Forest Management Project EA	USFS, Caribou-Targhee NF, Soda Springs RD: Proposing to treat 10,000 to 12,500 acres with a combination of vegetation management activities throughout the project area to improve the condition of the forest ecosystems. Up to 1,300 acres timber harvest, 1,200 acres tending, 9,500 acres prescribed fire.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Buffalo TSI EIS	USFS, Caribou-Targhee NF, Ashland/ Island Park RD: Precommercially thin approximately 3,900 acres to reduce/prolong the overall susceptibility to mountain pine beetle attacks & crown fires in previously harvested areas.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
Elk Mountain East Vegetation Management CE	USFS, Sawtooth NF, Sawtooth National Recreation Area: Proposal to conduct vegetation management activities to address insect infestations and resulting fuel build-up in the Elk Mountain and Dry Creek Area.	Decision signed 5/31/2018. There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
West Side Divide – Cottonwood CE West Side Divide - Ola Summit CE West Side Divide – Tripod CE	USFS, Boise NF, Emmett RD: Manage forest structure and species composition to improve forest landscape resiliency to recover from uncharacteristic insect and disease disturbance.	There are no GRSG HMAs on the Emmett RD. Therefore, this project would not contribute to cumulative effects.
Boise Ridge Forest Health Project CE Sinkers Creek Project CE	USFS, Boise NF, Mountain Home RD: These projects will treat vegetation on approximately 6,000 acres to reduce insect and disease disturbance in the wildland urban interface.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Lodgepole Springs Restoration Burn CE	USFS, Boise NF, Emmett RD: Implement a series of prescribed burns to restore species composition and stand structure by reducing undesirable species and stand densities.	Decision signed 4/12/2018. There are no GRSG HMAs on the Emmett RD. Therefore, this project would not contribute to cumulative effects.
Crane Basin Timber Stand Improvement CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Mixed severity prescribed fire in Crane Basin and adjoining McGowan Creek will introduce fire back into an ecosystem that has missed historic fire return intervals. This will improve stand health and provide positive changes to wildlife habitat.	Decision signed 6/28/2018. There is GRSG HMA within the project area. However, prescribed fire is not planned within IHMA. This project will provide positive improvements to GRSG and wildlife habitat, within the 5,760 acre project area.
Bartlett Creek Vegetation Project CE	USFS, Salmon-Challis NF, Lost River RD: Prescribed fire over a majority of the 3,000 acre project area. Manual thinning using chainsaws may occur in site specific locations.	Decision signed 4/26/2018. There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Boise Basin Experimental Forest Project EA	USFS, Boise NF, Idaho City RD: The Boise Basin Experimental Forest Project would conduct vegetation management and prescribed fire activities in the Boise Basin Experimental Forest as part of a Rocky Mountain Research Station research project.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
West Lowman Natural Fuels Reduction Project CE	USFS, Boise NF, Lowman RD: The Forest proposes to utilize prescribed fire and non-commercial thinning to improve forest health conditions within the Lowman WUI and other forest lands by reducing tree densities, ladder fuels and other fuel loads.	Decision signed 12/11/2018. There are no GRSG HMAs on the Lowman RD. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
Salmon Municipal Watershed EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Use thinning treatments and prescribed fire to reduce hazardous fuel loading, restore forest resilience to insects and disease, reduce unauthorized usage that lowers water quality, and improve wildland firefighter safety.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Idaho: Past acres burned on BLM-administered land	534,744 acres of HMA burned since the ROD was signed in 2015. Post-fire rehabilitation was implemented. Too soon to determine the effectiveness of rehabilitation.
Habitat treatments 2015–2017	BLM-administered lands in Idaho: Past habitat improvement projects	431,295 acres treated to restore or improve potential GRSG habitat. Too soon to determine the effectiveness of treatment
Bruneau-Owyhee Sage-Grouse Habitat Project (BOSH)	BLM-administered lands in Idaho: Future removal of juniper encroaching into GRSG habitat	BOSH would remove encroaching juniper from GRSG habitat and render the habitat usable for GRSG. Results in a net benefit to GRSG habitat.
ROWs issued 2015–2017	BLM-administered lands in Idaho: Past ROWs issued on BLM-administered land	97 ROWs were issued in the planning area but fewer than 10 were in GRSG habitat and resulted in new habitat loss. The effects were mitigated, using the mitigation hierarchy.
Pending ROWs 2015–2017	Future ROW under analysis on BLM-administered land	123 ROW applications have been submitted and are pending review and analysis.
Soda Fire restoration	BLM-administered lands in Idaho: Present habitat restoration and fuel break construction	Restoration of previously burned GRSG habitat. Results in a net benefit to GRSG habitat.
Tristate Fuel Breaks Project	BLM-administered lands in Idaho: Future GRSG habitat protection	Fuel breaks would protect habitat from wildfires. Some sagebrush may be lost during fuel break construction. Results in a net benefit to GRSG habitat.
Boise District Vegetation Project	BLM-administered lands in Idaho: Future habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions result in a net benefit to GRSG habitat.
Twin Falls Vegetation Project	BLM-administered lands in Idaho: Present habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions. Results in a net benefit to GRSG habitat.
Idaho Falls Vegetation Project	BLM-administered lands in Idaho: Present habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions. Results in a net benefit to GRSG habitat.
Conifer removal	NRCS in Idaho: Present (2018) 1,862 acres of conifer removal on private land to improve GRSG habitat Future (2019–2023) 5,541 acres of conifer removal on private land to improve GRSG	Conifer removal would improve GRSG habitat and open areas to GRSG that were previously unavailable because of juniper encroachment. Conifer removal would improve GRSG habitat and open areas to GRSG that

Action	Location and Activity	Cumulative Effects
	habitat	were previously unavailable because of juniper encroachment.
Weed treatments	NRCS in Idaho: Present (2018) 95 acres of weed treatments on private land to reduce noxious weeds in GRSG habitat Future (2019–2023) 357 acres of weed treatments on private land to reduce noxious weeds in GRSG habitat	Weed treatments allow the native vegetation to outcompete weeds on treated acres. Weed treatments allow the native vegetation to outcompete weeds on treated acres.
Water development	NRCS in Idaho: Present (2018) 21,308 feet of pipeline and 40 watering tanks installed on private land Future (2019–2023) 82,502 feet of pipeline and 46 watering tanks installed on private land	Water development to move livestock out of natural springs and wet meadows. Water development to move livestock out of natural springs and wet meadows
Nevada		
Humboldt-Toiyabe Integrated Invasive Plant Treatment Project EIS	USFS, Humboldt-Toiyabe NF, All Units: Update current management to provide for integrated and timely management of invasive species, now and in the future, with the goal of promoting healthy and thriving native plant communities across the HTNF.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.
California Integrated Weed Management EA	USFS, Humboldt-Toiyabe NF, Carson RD and Bridgeport RD (CA and NV): The proposed action includes the development and implementation of an Integrated Weed Management System (IWMS) to treat noxious and invasive weeds on Humboldt-Toiyabe National Forest System Lands in California.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.
Hickison Wild Burro Territory Appropriate Management Levels and Management Actions Project EA	USFS, Humboldt-Toiyabe NF, Austin RD: Project proposes to establish appropriate wild burro herd management levels, authorize population management actions, and approve reconstruction of water developments.	There is GRSG HMA within the project area. Wild horse and burros can have an impact on GRSG habitat, as described in the FEIS (see Table 4-2, Wild Horse and Burros for page number). Wild burro management efforts are projected to increase over the analysis period. When wild horse and burro management within Nevada is added to conservation actions, this would result in a net conservation gain to GRSG habitats and populations. Impacts may be reduced, where AMLs are evaluated with consideration of GRSG habitat objectives and Forest Plan components for Forest Service administered lands.

Action	Location and Activity	Cumulative Effects
Monte Cristo Territory Management Plan Update EA	USFS, Humboldt-Toiyabe NF, Ely RD: The Monte Cristo Wild Horse and Burro Territory Management Plan will be updated to include strategies to maintain the herd into the future at AML and to compliment the BLM's management of the Pancake Wild Horse and Burro Complex. Construction of new livestock watering pipeline across NFS land. This pipeline would connect two existing pipelines.	There is GRSG HMA within the project area. Wild horse and burros can have an impact on GRSG habitat, as described in the FEIS (see Table 4-2, Wild Horse and Burros for page number). Wild burro management efforts are projected to increase over the analysis period. When wild horse and burro management within Nevada is added to conservation actions, this would result in a net conservation gain to GRSG habitats and populations. Impacts may be reduced, where AMLs are evaluated with consideration of GRSG habitat objectives and Forest Plan components for Forest Service administered lands.
Spring Mountains Wild Horse & Burro Complex Project EA	USFS, Humboldt-Toiyabe NF, Spring Mountains NRA: Analyze appropriate management levels and horse gathers on the Spring Mountains NRA and the Southern NV BLM District.	Project on hold 4/2019. This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Indian Valley Greater Sage-grouse Habitat Improvement Project CE	USFS, Humboldt-Toiyabe NF, Austin RD: Remove pinyon pine and juniper on up to 17,000 acres within the Indian Valley project area. Treatment would be done on foot using chainsaws and other hand tools. No vehicles or mechanized equipment would be operated off road.	There is GRSG HMA within the project area. This project will provide opportunities to improve, maintain, and restore 17,000 acres of GRSG habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Bodie Hills Habitat Improvement Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: This project will remove conifers from about 4,700 acres of sagebrush ecosystems in the Bodie Hills to improve habitat for the Bi-State sage-grouse.	This project is not in a GRSG HMA. Bi-State sage-grouse habitat areas are managed separately from other GRSG. This project will provide opportunities to improve, maintain, and restore 4,700 acres of Bi-State sage-grouse habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to Bi-State sage-grouse and its habitat.
Sagebrush Habitat Restoration Project CE	USFS, Humboldt-Toiyabe NF, Ely RD: Use crews with chainsaws to cut and leave Phase I and II (Less than 100 years old) pinyon-Juniper trees to restore sagebrush and mountain brush communities.	Decision signed 7/2/2018. There is GRSG HMA within the project area. This project will provide opportunities to restore GRSG habitat through vegetation treatments. This habitat improvement project will result in beneficial cumulative effects to GRSG and its habitat.
West Carson Habitat Restoration Project CE	USFS, Humboldt-Toiyabe NF, Carson RD: Aspen stand restoration, and habitat improvement activities for TES species.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
	Aspen stand restoration would consist of reducing conifer encroachment to increasing aspen regeneration and diversity.	
Potosi Hazardous Fuels Reduction Project CE	USFS, Humboldt-Toiyabe NF, Spring Mountains NRA: Proposed use of prescribed fire and mechanical and hand treatments to reduce hazardous fuels across approximately 700 acres located in and adjacent to wildland urban interface (WUI).	There are no GRSG HMAs on the Spring Mountain NRA. Therefore, this project would not contribute to cumulative effects.
Restoration and Soil Erosion Control for Harris Springs Area CE	USFS, Humboldt-Toiyabe NF, Spring Mountains NRA: Following the 2013 Carpenter 1 fire significant watershed damage has occurred in the Harris Springs Watershed. The proposed project would address erosion from monsoonal events in the upper Harris Springs Canyon Watershed.	There are no GRSG HMAs on the Spring Mountain NRA. Therefore, this project would not contribute to cumulative effects.
Ruby Mountains Oil and Gas Leasing Availability Analysis EA	USFS, Humboldt-Toiyabe NF, Ruby Mountains RD: Proposal is to make available for oil and gas leasing approximately 54,000 acres of NFS land in the Ruby Mountains.	<p>There is GRSG HMA within the project area. The act of making NFS land available for leasing would have no direct or indirect effects, and therefore no cumulative effects, as no specific disturbance is taken as a result of purchasing a lease.</p> <p>If future development is proposed following the EA decision (expected November 2018), environmental analysis would occur. Lease stipulations would apply as described in the leases according to GRSG HMA category.</p> <p>The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be removed by forest plan components identified in the selected alternative.</p>
B2Gold Rockland Exploration Drilling Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: B2Gold Corporation proposes an exploration drilling project for locatable minerals in the Wilson Mining District (aka, Rockland Mining District), Lyon	Decision signed 7/23/2018. This project is not in GRSG HMA, it is in the bi-state area. Therefore, this project would not contribute to cumulative effects.

Action	Location and Activity	Cumulative Effects
	County, Nevada. Activities proposed under the project include the drilling of exploration core holes.	
Pine Grove Geotechnical Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: Exploration drilling for locatable minerals in the Wilson Mining District. Activities would include drilling 4 groundwater exploration wells, 9 mineral exploration holes, 6 geotechnical engineering auger holes, and 11 test pits for soil evaluation.	This project is not in GRSG HMA, it is in the bi-state area. Therefore, this project would not contribute to cumulative effects.
Bald Peak Minerals Exploration Project EA	USFS, Humboldt-Toiyabe NF, Bridgeport RD: The Proposed Action consists of 11 exploration drill sites, from which each constructed site a core drill will be utilized to drill one to three exploration drill holes. This will be a helicopter supported operation with no new roads constructed.	This project is not in GRSG HMA, it is in the bi-state area. Therefore, this project would not contribute to cumulative effects.
Barcelona Minerals Exploration Project CE	USFS, Humboldt-Toiyabe NF, Austin RD: Minerals exploration project in the Toquima Range. Seven drill sites on FS administered land.	<p>There is GRSG HMA within the project area. Approximately 1.05 acres will be disturbed to collect samples of rock for mineral and chemical analysis from below the ground surface by means of boreholes using truck mounted, core drill rigs.</p> <p>May remove a minor amount of vegetation due to drilling activities (approximately 1.05 total acres spread across seven sites). Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the selected alternative. This project would not contribute to cumulative effects, as it would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.</p>
Big Springs Gold 2018 Exploration Project CE	USFS, Humboldt-Toiyabe NF, Austin RD: Exploration Project in the Paradise Range. This project replaces the previously authorized Big Springs Gold Plan of Operations which expired prior to project implementation. 17 constructed drill sites, temporary road, overland travel for access	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Corcoran Canyon Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling project in the Toquima mountain range north of Belmont NV (up to 29 drill sites and 2 groundwater monitoring wells at two drill	There is GRSG HMA within the project area. Approximately 3.47 total acres will be disturbed to explore for precious metal mineral resources.

Action	Location and Activity	Cumulative Effects
	sites). Groundwater monitoring wells will be used to collect baseline water quality data and groundwater characteristics (e.g., recharge/discharge rates) for a potential future mine proposal. Groundwater monitoring wells and access routes will be used for a period of five years following construction and be reclaimed after the five-year period.	May remove a minor amount of vegetation due to drilling activities (approximately 3.47 total acres spread across 29 sites). Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the selected alternative. This project would not contribute to cumulative effects, as it would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Danbo Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling project, nine proposed drill holes all on existing disturbance, no new road construction, widening or maintenance proposed.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Keystone Jumbo CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration project near the Keystone and Jumbo Pits adjacent to Manhattan NV. A total of 29 proposed exploration drill holes, up to 3 holes drilled per site. A total of 1.44 acres of proposed disturbance. No new road construction or maintenance.	Decision signed 11/28/2018. This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Longstreet 2018 Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling program in the southern Monitor Range including new road construction, installation of 1 production well and 7 groundwater monitoring wells and 12 exploration drill holes. 1.97 acres of total disturbance.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
California Creek Powerline Project	USFS, Humboldt-Toiyabe NF, Mountain City RD: Construction of approximately 1 mile of powerline (both underground and overhead) to provide power to private land inholdings. This new line will replace an overhead line that was burned in the Brown's Gulch wildland fire.	The 2,400 feet of powerline that is located on NFS lands would be buried within an existing roadway. The remainder of the 2,100 feet of overhead line would be located on private land. Since this is being mitigated on NFS lands (buried) this project would not contribute to cumulative effects.
Bordertown to California 120kV Transmission Line EIS	USFS, Humboldt-Toiyabe NF, Carson RD (CA and NV): Construct 120kV transmission line connecting the Bordertown and California substations.	This project is not located in GRSG HMA on the Humboldt-Toiyabe NF. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Nevada and Northeastern California: Past acres burned on BLM-administered land	Approximately 1.3 million acres of GRSG HMA burned between 2015-2017. Post fire restoration is being implemented as described below.
Fire Restoration (Emergency)	BLM-administered lands in Nevada and California: Past and Present – Habitat	1.8 million acres of habitat are either currently being treated or scheduled to

Action	Location and Activity	Cumulative Effects
Stabilization and Rehabilitation)	restoration following wildland fires	be treated according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire.
Habitat treatments 2015–2017	BLM-administered lands in Nevada and Northeastern California: Past habitat improvement projects	Over 176,000 acres of GRSG habitat was treated between 2015 and 2017 to maintain or improve conditions for GRSG. Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/restoration.
Land Use and Realty (issued and pending) 2015-2018	BLM-administered lands in Nevada: Past ROWs issued on BLM land Future pending ROWs	227 ROWs were issued in the planning area between 2015-2017. This includes amendments and reauthorizations, which may not have resulted in new disturbance. For ROWs occurring in GRSG habitat, effects were offset using the mitigation hierarchy. 85 ROW applications are pending review and analysis. New ROWs would be held to the same mitigation standard under the management alignment alternative as described in the 2015 EIS, so no additional cumulative impacts beyond those described in 2015 are anticipated. In addition, BLM Nevada is also currently evaluating a proposed withdrawal for expansion of the Fallon Naval Air Station, Fallon Range Training Complex for defense purposes.
Oil and Gas	BLM-administered lands in Nevada: Past oil and gas projects Future pending oil and gas projects	BLM has offered for lease 425,711 acres in HMAs; 407,478 acres of that total were leased. Lease stipulations apply as described in the leases according to GRSG HMA category. BLM's scheduled lease sale on June 12, 2018 included offering a total 110,556 acres of HMAs for lease. After the sale, 30,591 acres in HMA were sold. On September 11, 2018, BLM held another lease sale, where 13,163 acres in HMA were sold. The final lease sale of 2018 for BLM Nevada is scheduled for December 11, 2018 and this sale will not include any parcels within HMA for lease.
Geothermal	BLM-administered lands in Nevada: Past and present geothermal projects	Between 2015 and 2017, the BLM has offered for lease 24,468 acres within HMAs. Lease stipulations apply as

Action	Location and Activity	Cumulative Effects
		<p>described in the leases as analyzed in the 2015 GRSG FEIS.</p> <p>6 geothermal development permits have been approved and drilled on existing pads on existing leases. McGinness Hills Phase 3 EA authorized up to 42 acres of disturbance on existing leases, which will be offset according to the mitigation hierarchy.</p>
Geothermal	Forest Service in Nevada: Future Pending geothermal projects	6,901 acres of HMA pending Forest Service concurrence to lease, no pending geothermal development permits. If in HMAs, stipulations would be as described in 2015.
Locatable Mineral Projects	<p>BLM-administered lands in Nevada: Past and present locatable mineral projects</p> <p>Future Pending locatable minerals projects</p>	<p>Between 2015 and 2017, the BLM has approved 18 new mines and/or expansions in the planning area, which is within the reasonably foreseeable development scenario outlined in the 2015 GSRG FEIS (Section 5.1.16).</p> <p>The BLM is currently reviewing 20 plans of development for new mines or expansions, which is within the reasonably foreseeable development scenario outlined in the 2015 GRSG FEIS (Section 5.1.16).</p>
Fuel Breaks Programmatic EIS	BLM-administered lands in Nevada: Future – Great Basin-wide programmatic habitat fuel break project	Programmatic document effects will be realized when the field implements projects.
Utah		
Ashley National Forest – Forest Plan Revision EIS	USFS, Ashley NF (UT, WY): The Ashley National Forest is about to undergo Forest Plan Revision. The Ashley's existing Forest Plan is from 1986 and it needs to be updated to reflect current natural resource conditions.	This is a programmatic document. Effects will be realized when the field implements projects. More information is located at: http://www.fs.usda.gov/project/?project=49606
Manti-La Sal National Forest Land and Resource Management Plan EIS	USFS, Manti-La Sal NF: Forest Plan Revision. The Manti-La Sal National Forest is in the process of revising its Forest Plan pursuant to the 2012 Planning Rule (36 CFR 219). For more information, visit http://bit.do/mlsnfplanningpage .	This is a programmatic document. Effects will be realized when the field implements projects.
Bears Ears National Monument (BENM) Management Plan EIS	USFS, Manti-La Sal NF, BENM: FS to serve as a co-lead and cooperating agency to the BLM in development of a management plan for the Shash Jaa unit of the BENM.	This is a programmatic document. Effects will be realized when the field implements projects.
South Slope Vegetation Restoration CE	USFS, Ashley NF, Vernal RD: Cheatgrass and other annual weed treatments, including drill seeding, broadcast seeding,	Restoration of GRSG habitat by treating and reseeding 945 acres of cheatgrass

Action	Location and Activity	Cumulative Effects
	and experimental burn.	infestation will result in a net benefit to GRSG habitat.
Brian Head Fire Rehabilitation Project EA	USFS, Dixie NF, Cedar City RD: In the summer of 2017 the Brian Head fire burned more than 71,000 acres of private, state, and federal land. This project focuses on rehabilitation for the burned area and areas immediately adjacent.	Decision signed 7/10/2018. The Brian Head fire burned through some areas identified as PHMA. In some areas encroaching conifers were reduced, enhancing sage-steppe habitat for sage-grouse. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
Brian Head Fire Rehabilitation Project CE	USFS, Dixie NF, Cedar City RD: This project will strive to improve public health and safety and natural resource conditions impacted by the Brian Head fire while continuing to promote multiple use management.	Decision signed 4/12/2018. The Brian Head fire burned through some areas identified as PHMA. In some areas encroaching conifers were reduced, enhancing sage-steppe habitat for sage-grouse. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
North Hills Wild Horse Management Plan EA	USFS, Dixie NF, Pine Valley RD: Collaborative analysis for continued wild horse management in southern Utah lands administered by USDI Bureau of Land Management and USDA Forest Service-Dixie National Forest.	There are no GRSG HMAs on the Pine Valley RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Mud Springs Wildlife Habitat Improvement Project CE	USFS, Dixie NF, Powell RD: Protect and restore sage-steppe habitats for the benefit of the threatened Utah prairie dog and the Forest Service sensitive sage-grouse. Restore watershed conditions to facilitate improved wildlife habitat effectiveness. Reduce encroaching conifers.	Decision signed 5/24/2018. This project will provide opportunities to reduce encroaching conifers and protect and restore sage-steppe habitat for sage-grouse. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Paunsaugunt Plateau Wildlife Habitat Improvement Project CE	USFS, Dixie NF, Powell RD: Maintain and improve the status of the Paunsaugunt boreal toad population and other key wildlife species by increasing the availability of woody browse, such as aspen, adjacent to current, historic and potential use areas.	This project is located in an area that does not support suitable sage-grouse habitat and improvements to that are going to enhance aspen and will not enhance habitat for sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Last Chance Wildlife Habitat Improvement Project	USFS, Fishlake NF, Fremont River RD: Proposal to reduce conifer encroachment into sage-grouse priority habitat by using mechanical treatments and broadcast burning, with seeding as needed. Up to six guzzlers will be installed for wildlife and game use.	This project will provide opportunities to reduce encroaching conifers and protect and restore GRSG habitat. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Green Canyon and Providence Canyon	USFS, Uinta-Wasatch-Cache NF, Logan RD: Remove juniper in Green Canyon,	Decision signed 8/16/2018. This project is located in an area that do not support

Action	Location and Activity	Cumulative Effects
Watershed Wildlife Habitat Improvement CE	Logan Dry Canyon and Providence Canyon. Juniper would be removed by hand cutting and the area seeded with browse species to improve the quality and quantity of forage for wildlife.	suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Uinta-Wasatch-Cache Phase 1 Pinyon/Juniper Treatments CE	USFS, Forest-wide, Uinta-Wasatch-Cache NF: Mechanically treat, by lop and scatter, juniper and pinyon pine whips on approximately 71,868 acres.	Decision signed 5/4/2018. This project is in locations across the forest that could provide opportunities to improve GRSG habitat through vegetation treatments. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
Jacob's Valley Vegetation Management Project EA	USFS, Dixie NF, Escalante RD: Address forest health at the stand and landscape level to maintain and enhance ecosystem function, watershed characteristics, visual aesthetics, recreational and implementation of the motorized travel plan.	This project will provide opportunities to reduce encroaching conifers and protect and restore sage-steppe habitat for sage-grouse. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Grass Valley Creek Watershed Restoration EA	USFS, Dixie NF, Pine Valley RD: The Grass Creek Watershed was selected as a project area for NFMA analysis due to its departure from a healthy functioning ecosystem. Analysis will focus on fire restoration, fuels reduction, aspen regeneration, and biodiversity.	There are no GRSG HMAs on the Pine Valley RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
North End Habitat Improvement project CE	USFS, Manti-La Sal NF, Moab RD: Vegetation management project on the north side of the La Sal Mountains to improve forage production for big game and to reduce the continuity of fuels for wildland fire management, utilizing mechanical (bullhog) and hand (chainsaw) treatments.	Decision signed 8/3/2018. This area on the Manti-La Sal National Forest does not contain suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Red Ryder Vegetation Management Project EA	USFS, Uinta-Wasatch-Cache NF, Ogden and Logan RDs: Proposal includes a combination of commercial timber harvesting, pre-commercial thinning, and prescribed fire to treat approx. 13,263 acres. Access to the project area would involve use of temporary and existing roads.	Decision signed 6/25/2018. This project is a timber sale outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Upper Midway Salvage Project CE	USFS, Dixie NF, Cedar City RD: Salvage of 168 acres of dead (beetle killed) spruce using tractor logging, mechanical harvest equipment and whole tree removal. Slash would be available as biomass or fuel load. Slash at landing burned through a burn plan. Replanting if needed.	Decision signed 7/10/2018. This project is a timber sale outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Canyons Project EA	USFS, Manti-La Sal NF, Sanpete RD:	There are no GRSG HMAs on the Sanpete RD. Therefore, this project

Action	Location and Activity	Cumulative Effects
	Salvage dead Engelmann spruce trees and implement fuels reduction treatments under HFRA. About 33,500 acres of treatment proposed.	would not contribute to cumulative effects to GRSG and its habitat.
Upper Provo Watershed Fuels Project – Addition CE	USFS, Uinta-Wasatch-Cache NF, Heber-Kamas RD: Proposal is an addition to the approved and partially implemented Upper Provo Watershed EA signed in 2014. Of the 1,316 acres, 500 acres are polygons within the 91,000 acre boundary. Added 4,942 additional acres of treatment to the project area.	This project is a fuels reduction project outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Heber Veratrum Harvest EA	USFS, Uinta-Wasatch-Cache NF, Heber-Kamas RD: Proposal to harvest the roots of approximately 300 acres of Veratrum californicum (Corn lily) from the Uinta NF. An external proponent would use a chemical in the plants to explore and establish medical options for the treatment of certain cancers.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Pinto Watershed and Defensible Fire Space Improvement Project EA	USFS, Dixie NF, Pine Valley RD: WUI fuels reduction, winter range enhancement, grass and forb diversity improvement, and watershed improvement to reduce TMDL to Newcastle reservoir.	There are no GRSG HMAs on the Pine Valley RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Fishlake National Forest & Boulder Mountain Pinyon- Juniper Project EA	USFS, Fishlake NF, All Units: Pinyon-juniper removal to improve and maintain sage-steppe, grassland, oak, and open woodland cover. Treatments include hand-cutting, mechanical and prescribed burning to address encroachment.	This project is located in an area that does not occur in PHMA, however, small areas of PHMA designated habitat occur within the analysis boundary. These habitat improvement projects will result in some beneficial cumulative effects to GRSG and its habitat.
South Beaver Vegetation Management Project EA	USFS, Fishlake NF, Beaver RD: Analyze the potential effects of thinning and burning within the 42,900 acre South Beaver project area.	Decision signed 5/14/2018. This project is a thinning and fuels reduction project outside of suitable habitat for GRSG. Therefore, this project would have no cumulative effect to GRSG and its habitat.
Porcupine Aspen Improvement Project CE	USFS, Fishlake NF, Fremont River RD: Proposal to implement prescribed fire treatments in seral aspen stands to promote the regeneration and recruitment of aspen communities. A mosaic burn pattern with a variety of fire severities is desired.	Decision signed 04/04/2019. Project design is to improve aspen communities by using prescribed fire on 9,292 acres. Project design features are included to avoid adverse impacts to GRSG habitat. This project would have no cumulative effect to GRSG and its habitat.
Trail Mountain Wildlife Habitat Enhancement and Aspen Regeneration Project CE	USFS, Manti-La Sal NF, Ferron RD: Prescribe burn approximately 4,004 acres within a 17,115 project area to regenerate aspen, improve wildlife habitat, protect watershed values, and reduce hazardous fuel conditions.	Decision signed 4/11/2018. Project design is to enhance big game habitat by regenerating aspen. A wildfire occurred and burned much of the project area, impacting limited areas of General habitat. This project had

Action	Location and Activity	Cumulative Effects
		minimal cumulative impacts on GRSG and GHMA habitat.
South Fork Lease Modification Project EA	BLM and USFS, Fishlake NF, Richfield RD and Manti-La Sal NF, Ferron RD: Analyze the impacts of a request by Canyon Fuel Company, LLC to modify the lease boundaries for federal coal leases UTU-84102 (Greens Hollow) and U-63214 (Quitcupah).	Decision signed 10/4/2018. This project in part occurs in PHMA in the Greens Hollow area. If the project is implemented, it will have adverse cumulative effects to GRSG and its habitat in the Greens Hollow Area. While activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.
Diamond Fork Phosphate Project EA	USFS, Uinta-Wasatch-Cache NF, Spanish Fork RD: Proposal to conduct phosphate mining activities on a lease area regulated by the BLM with concurrence from the USFS as the surface landowner.	Decision signed 9/6/2018. This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Horseshoe Quarry CE	USFS, Manti-La Sal NF, Price/Ferron RD: The proposed Horseshoe Quarry is located at the northern edge of Horseshoe Flat. Approximately 70,000 yd3 (insitu bank volume) of Flagstaff Limestone is available within the proposed quarry. Resources will be used to maintain Forest projects.	There are no GRSG HMAs in the project area. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Jim and Iver #1 and 2 Mining Claims Plan of Operations EA	USFS, Fishlake NF, Beaver RD: In accordance with mining law, evaluate the potential effects of mining the Jim and Iver claims as described in the plan of ops. This includes reopening a collapsed adit and taking geologic samples.	Project on hold as of 4/2019. This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
North Fork North Creek Mineral Material Pit Management Plan CE	USFS, Fishlake NF, Beaver RD: Proposing to implement a pit management plan for the North Fork of North Creek Mineral Material Pit, which will define future development, production, and reclamation in order to respond to requests for permits.	Decision signed 10/23/2018. This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Fish Lake Basin SCC Fiber Optic Line CE	USFS, Fishlake NF, Fremont River RD: Proposal to grant a special use permit to South Central Communications (SCC) to install, operate, and maintain a fiber optics line which will run along existing road right-of-ways in the Fish Lake basin.	The 4.5 miles of fiber optic line would be buried in the ROW adjacent to existing roads. There would be no disturbance to GRSG habitat expected. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
South Central Communications Upper Boulder Fiber Optic	USFS, Dixie NF, Escalante RD: South Central Communications is proposing to construct, operate and maintain a	Decision signed 5/29/2018. This project is located in an area that does not support suitable sage-grouse habitat.

Action	Location and Activity	Cumulative Effects
Project CE	telecommunications system north of Boulder on Hwy 12. Project components include placement of fiber and installation of access vaults, needed for improved services.	Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
American Fork Canyon Fiber Optics Project CE	USFS, Uinta-Wasatch-Cache NF, Pleasant Grove RD: Proposal to improve fiber optic and cellular network in AF Canyon by installing approximately 6.4 miles of new conduit along SR-92 and SR-144, approximately 28 (35-foot tall) cellular antenna nodes, and a structure to house wireless comm equipment.	There are no GRSG HMAs in the project area. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Patsey Marley Shrontz Utility Right-of-Way EA	USFS, Uinta-Wasatch-Cache NF, Salt Lake RD: Proposal to construct a utility right-of-way and widen the existing Albion Basin Road (National Forest System Route (NFSR) 028) to improve access to the proposed Patsey Marley Hill Property and Subdivision.	There are no GRSG HMAs in the project area. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Wildland fires 2015–2017	BLM-administered lands in Utah: Past acres burned by wildfire	Past: Approximately 61,262 acres of PHMA/GHMA burned between 2015 and 2017. Post fire restoration is being implemented across all population areas that are affected. Effects: Potential loss of habitat value due to the removal of vegetation by fire.
Fire Restoration (Emergency Stabilization and Rehabilitation)	BLM-administered lands in Utah: Acres of habitat restoration following wildland fires	Past: Approximately 173,100 acres of HMA were treated/restored between 2015 and 2017. All of these acres are being restored according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire across all population areas that are affected. Effect: Potentially improve or increase habitat due to vegetative restoration activities.
State of Utah Greater Sage-Grouse Management	State of Utah: Update of the State’s Conservation Plan for GRSG in Utah, as well as implementation of the State’s compensatory mitigation rule	Past: The Conservation Plan for GRSG in Utah was finalized in 2013; it was designed to be updated every 5 years. While it requires a 4:1 mitigation ratio in the State’s Sage-Grouse Management Areas (SGMA), there was no established approach to implement that mitigation standard to the State’s 11 SGMAs.

Action	Location and Activity	Cumulative Effects
		<p>Effect: The plan establishes the management actions necessary for the State of Utah to continue to enhance and conserve the GRSG while still allowing for economic opportunities.</p> <p>Future: The State is updating their GRSG plan and incorporating the compensatory mitigation rule that provides a process to develop a banking system to apply the state's 4:1 mitigation ratio that is designed to improve habitat for GRSG.</p> <p>Effect: This effort will help to refine and identify areas to improve management actions and allow for the incorporation of new and local science to better balance GRSG management across the state. It will also provide an opportunity for economic development to occur while offsetting the impacts to habitat quality.</p>
Habitat Treatments	BLM-administered lands in Utah: Acres of habitat improvement projects	<p>Past: Over 219,000 acres of GRSG habitat was treated between 2015-2017 to maintain or improve conditions for GRSG across all populations. Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/restoration.</p> <p>Effect: Potentially improve or increase habitat due to vegetative restoration activities.</p> <p>Future: Over 524,702 acres of GRSG habitat is being proposed for treatment over the next 5 years. Treatments will include conifer removal, fuel breaks, invasive species removal and habitat protection/restoration across all populations.</p> <p>Effect: Potentially improve or increase habitat due to vegetative restoration activities.</p>
Land Use and Realty (issued and pending) 2015-2018	BLM-administered lands in Utah: Past ROWs issued or pending on BLM land	<p>Past: 841 ROWs were issued in the planning area between 2015 and 2017.</p> <p>This includes amendments and reauthorizations, which may not have</p>

Action	Location and Activity	Cumulative Effects
		<p>resulted in new disturbance. For ROWs occurring in GRSG habitat, effects were offset using the mitigation hierarchy.</p> <p>Future: 380 ROW applications are pending review and analysis.</p> <p>Effect: New ROWs would be held to the compensatory mitigation process described in this Proposed RMPA/Final EIS. However, no additional impacts from those described in the Draft EIS and 2015 Final EIS are expected.</p>
Zephyr Transmission Line	BLM-administered lands in Utah: 500 kV transmission line	<p>Application received – could impact the Bald Hills, Uintah, Carbon, Strawberry, Emery, and Sheepocks populations.</p> <p>Effects: May remove vegetation due to construction activities. Towers may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
Parker Knoll Pump Storage Hydroelectric Federal Energy Regulatory Commission Project	BLM-administered lands in Utah: Create electricity using a two-reservoir, gravity-fed system; approximately 200 acres of GRSG habitat would be lost; mitigation involves GRSG habitat-improvement work in areas adjacent to the lost habitat.	<p>Still in planning and NEPA stages – could impact the Parker Mountain population.</p> <p>Effects: May remove vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
Enefit Utility Project	BLM-administered lands in Utah: Five rights-of-way across public lands for infrastructure (a road, 3 pipelines, and 2 powerlines) to support development of a mine on private lands. Estimated 1,037 acres of disturbance for the rights-of-way (7,000 to 9,000 acre mine and 320-acre processing plant).	<p>ROD issued in September 2018. Issuance and constructions of ROWs still pending – could impact the Uintah population.</p> <p>Effects: May remove vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian predators. However, most of these impacts should be removed by</p>

Action	Location and Activity	Cumulative Effects
Oil and Gas Leases	BLM-administered lands in Utah: Acres of BLM land leased for Oil and Gas development	<p>management standards identified in the selected alternative.</p> <p>Past: From 2105-2017 the BLM has leased approximately 25,000 acres in HMAs, of which approximately 25 of those acres were located in PHMA. Lease stipulations apply as described in the leases according to HMA category.</p> <p>Effects: The act of leasing would have no direct effect.</p> <p>Future: The BLM is required to conduct quarterly lease sales which could include parcels in HMA. Lease stipulations would still be as described in 2015 until a decision is made on this RMPA/EIS.</p> <p>Effect: The act of leasing would have no direct effect, as no specific disturbance is taken as a result of purchasing a lease.</p> <p>Leasing could occur in any of the populations, but would be most likely to impact the Uintah, Carbon, Emery, and Rich populations due to mineral potential.</p>
Oil and Gas Wells	BLM-administered lands in Utah: Oil and Gas exploration and development	<p>Future: Based on the reasonably foreseeable development assumptions, it is anticipated that 2,968 oil and gas wells will be drilled within occupied GRS habitat within the population areas of which 2,289 wells are anticipated to be producing wells. Exploration wells expected in all populations. Development wells anticipated in Uintah, Carbon, Emery, and Rich populations.</p> <p>Effect: The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should</p>

Action	Location and Activity	Cumulative Effects
		be removed by management standards identified in the selected alternative.
Asphalt Ridge Tar Sands Development	BLM-administered lands in Utah: Lease approximately 6,000 acres of Tar Sands Lands described in the Asphalt Ridge Tract, which is directly adjacent to existing approximately 16,000 acres of State leases	<p>Future: In planning and NEPA stages – could impact the Uintah population.</p> <p>Effect: As a largely underground operation on BLM-administered lands, this would disturb a small amount of land associated with ancillary features. On the portions of the mine that would be mined through surface means, habitat would be lost and noise, dust, and light would affect adjacent areas.</p>
Flat Canyon Coal Lease by application	BLM-administered lands in Utah: The Flat Canyon Coal Lease Tract is approximately 2, 692 acres of federal coal reserves	<p>Present: Forest Service completed the consent to BLM. Approximately 23 acres out of the 2,692 acres are within the Emery Population Area.</p> <p>Effect: The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Alton Coal Tract Lease-by-Application	BLM-administered lands in Utah: Add 3,576 acres of federal surface or mineral estate to existing 300-acre mine on private land.	<p>ROD issued in August 2018. Lease and development of the mine still pending – could impact the Panguitch population.</p> <p>Effect: Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Williams Draw Coal Lease by Application	BLM-administered lands in Utah: The proposed action includes 4,200 acres of federal surface and mineral estate; the proposal may have several vents, drilling exploration holes on the surface and underground, and load-out facilities	<p>Future: In planning and NEPA stages; could impact the Carbon population.</p> <p>Effect: The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Greens Hollow Coal Lease by Application	BLM-administered lands in Utah: Proposal includes 6,700 acres; a vent is proposed off site; minimal surface disturbances with the exception for	Future: The area has been leased, but development is on hold due to

Action	Location and Activity	Cumulative Effects
	exploration drilling	<p>litigation. Would affect the Emery population.</p> <p>Effect: Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Flat Canyon Coal Lease by Application	BLM-administered lands in Utah: Lease by Application 3,792 acres; and Exploration License, 595 acres	<p>Present: Leased and under production in the Carbon population.</p> <p>Effect: The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Gilsonite Leasing	BLM-administered lands in Utah: 16,810 acres that are currently under prospecting permit application; the permits would either be issued, or a Known Gilsonite Leasing Area would be established, thus allowing competitive leasing.	<p>The prospecting permit applications have been in place since the late 1980s; Known Gilsonite Leasing Area report ongoing, after which NEPA will begin to address backlogs for these areas in the Uintah population.</p> <p>Effect: Activities associated with development or prospecting of the permit/lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Phosphate Fringe Acreage Lease	BLM-administered lands in Utah: 1,627 acres of fringe acreage lease on BLM-administered lands.	<p>Future: NEPA has started and awaiting a Development Scenario to complete the NEPA for this area in the Uintah population.</p> <p>Effect: The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Phosphate Competitive Lease Application	BLM and USFS in Utah: 1,186 acres on National Forest System lands	Future: NEPA has started and awaiting a Development Scenario to complete the

Action	Location and Activity	Cumulative Effects
		<p>NEPA for this area in the Uintah population.</p> <p>Effect: Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
<p>Hard Rock Prospecting Permits being considered on Bankhead Jones</p>	<p>BLM-administered lands in Utah: Hard rock exploration permits</p>	<p>Future: Pending consideration for this area in the Sheeprocks population.</p> <p>Effect: Activities associated with development of the lease could result in loss of habitat, vehicle mortality due to increased traffic and disruption of seasonal use areas. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
<p>Gooseberry Narrows Reservoir</p>	<p>BLM, BOR, USFS in Utah: Bureau of Reclamation project on Forest Service and private land; project is approximately 1,200 acres</p>	<p>Future: EIS is complete, pending EPA review and approval for this portion of the Carbon population.</p> <p>Effect: Activities associated with construction and operation of the reservoir would result in loss of habitat within the project area and a potential increase for vehicle mortality due to increased traffic. However, the habitat lost within the project area may be supplemented by improving the quality and seasonal functionality of the adjacent habitat. Most of the impacts should be removed by management standards identified in the selected alternative.</p>
<p>Grand Staircase-Escalante National Monument Management Plan</p>	<p>BLM-administered lands in Utah: Development of a resource management plan</p>	<p>Draft EIS issued in August 2018. Still in planning stages for this area that overlaps the Panguitch population.</p> <p>Effect: This action would provide a framework to manage both the remaining monument areas and the areas no longer within the monument boundaries. It is too early in the process to determine a cumulative effect since the proposed plan is unknown.</p>
Wyoming		

Action	Location and Activity	Cumulative Effects
Ashley National Forest – Forest Plan Revision EIS	USFS, Ashley NF (UT, WY): The Ashley National Forest is about to undergo Forest Plan Revision. The Ashley's existing Forest Plan is from 1986 and it needs to be updated to reflect current natural resource conditions.	This is a programmatic document. Effects will be realized when the field implements projects. More information is located at: http://www.fs.usda.gov/project/?project=49606
2020 Thunder Basin National Grassland Plan Amendment EIS	USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: The Grassland proposes to amend prairie dog management direction in the Land and Resource Management Plan, including changes to management area boundaries and changes to grassland-wide, geographic area, and management area plan components.	Programmatic document, effects will be realized when the field implements projects.
Invasive Plant Management EIS	USFS, Bridger-Teton NF, All Units: Control of noxious and other invasive plants through the integration of manual, mechanical, biological, and ground and aerial herbicide control methods.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which will result in improved GRSG habitat.
Targhee National Forest Lynx Analysis Units EIS	USFS, Caribou-Targhee NF, Palisades, Teton Basin, Dubois, Ashton/Island Park RDs (ID, WY): Utilize existing protocols and data to establish Lynx Analysis Units (LAUs) on the Targhee portion of the Forest. The LAUs and identified lynx habitat will be subject to the Northern Rockies Lynx Management Direction.	Programmatic document, effects will be realized when the field implements projects.
Crow Creek Pipeline Project Lower Valley Energy EIS	USFS, Caribou-Targhee NF, Montpelier RD (ID, WY): Construct a fifty mile, eight inch natural gas pipeline between Bear Lake County and Afton, Wyoming. Approximately 20 miles of this pipeline would be on Forest Service lands.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Riley Ridge Natural Gas Development (Forest Service Portion) EA	USFS, Bridger-Teton NF, Big Piney RD: Authorization of one existing gas well & construction of approximately 1,200 feet of buried pipeline.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
True Oil Lander Peak Area Exploratory Proposal EA	USFS, Bridger-Teton NF, Big Piney RD: True Oil has submitted the Lander Peak Exploration Proposal for two exploratory wells; one from an existing pad and one from a reclaimed pad.	Decision signed 6/5/2018. Location of well pad 23-15 occurs within GRSG PHMA. The Forest Service analyzed potential effects to GRSG using the Wyoming Game and Fish Department Density Disturbance Calculation Tool (DDCT). Decision will contribute to cumulative effects, but does not cause

Action	Location and Activity	Cumulative Effects
		exceedance of density or disturbance thresholds set by Guidelines 21 and 22 of the 2015 GRSG ROD and FEIS.
Encampment Minerals Core Drilling – Stud Creek CE	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Mineral exploration and sampling conducted through boring four geologic cores for analysis. Cores will be removed, and remaining holes plugged with concrete.	Project on hold 4/2019. There is GRSG HMA within the project area. Less than 1 acre will be disturbed to bore four geological cores for analysis. May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Encampment Minerals Core Drilling - Muddy Mountain CE	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Encampment Minerals to drill three core samples for the purpose of minerals exploration. Cores will be 3.25 inches in diameter and range from 300 to 800 feet in length.	There is GRSG HMA within the project area. Less than 1 acre will be disturbed to drill three core samples for mineral exploration. May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Encampment Minerals Core Drilling - Prospect Mountain CE	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Encampment Minerals proposes to drill six core samples for minerals exploration purposes. Cores will be 3.25 inches diameter and anywhere from 250 - 550 feet in length. Drilling area is accessed by one open public road and two decommissioned roads.	Project on hold 4/2019. There is GRSG HMA within the project area. Less than 1 acre will be disturbed to drill six core samples for minerals exploration purposes. May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Camp Creek Federal F-3 Oil Well CE	USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Re-entry on a formerly used oil well pad, drilling of one oil well, and associated reclamation.	This project would be a reentry to a previously used oil pad. Associated infrastructure has been constructed. Disturbance is currently included in disturbance cap calculations; therefore,

Action	Location and Activity	Cumulative Effects
		no further cumulative effects would result from this project.
Charybdis 3D Seismic Survey CE	USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Geophysical survey for fluid minerals.	This project is temporary in nature and does not remove habitat. Seismic survey is planned such that timing does not disturb breeding and nesting activity. No cumulative effects would result from this project.
Railgun 3D Seismic Survey CE	USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Geophysical survey for oil and natural gas.	This project is temporary in nature and does not remove habitat. Seismic survey is planned such that timing does not disturb breeding and nesting activity. No cumulative effects would result from this project.
Converse County Oil and Gas Project EIS	<p>USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: An Operator Group (OG) proposed an oil and natural gas development project. They propose to conduct drilling to develop the hydrocarbon resources from oil and gas leases owned, at least in part, by members of the OG within the Converse County Project Area (CCPA) in Converse County, Wyoming. The OG has identified approximately 5,000 oil and natural gas wells on 1,500 well pads.</p> <p>The CCPA encompasses approximately 1.5 million acres of land owned or administered as follows:</p> <ul style="list-style-type: none"> • Approximately 88,466 surface acres (6% of the CCPA) are administered by the BLM Casper Field Office; • Approximately 63,911 surface acres (4% of the CCPA) are administered by the USFS; • Approximately 101,012 surface acres (7%) administered by the State of Wyoming; and • Approximately 1,247,477 surface acres (83%) are privately owned. <p>The DEIS for this project is located at: https://eplanning.blm.gov/epl-front-office/eplanning/docset_view.do?projectId=66551&currentPageId=95977&documentId=131874</p>	<p>The CCPA contains 199,281 acres of GRSG PHMA. There are 1,287,429 acres of GRSG GHMA within the CCPA.</p> <p>Environmental effects are currently being analyzed. The project will contribute to cumulative effects. Lease stipulations would apply as described in the leases according to GRSG HMA category.</p> <p>The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be lessened or removed by forest plan components identified in the selected alternative.</p> <p>Development is consistent with the reasonably foreseeable development scenarios analyzed as part of the 2015 GRSG FEIS and the associated LMPA. Additional impacts are expected to be within the range analyzed in 2015 GRSG FEIS cumulative impacts analysis.</p>
Jibilian Federal Oil and Gas Development - True Oil LLC CE	USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Oil and gas development that includes access road, well pad, and wells.	Decision signed 6/20/2018. There is GRSG HMA within the project area. This project may disturb approximately 10 acres.

Action	Location and Activity	Cumulative Effects
		<p>The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be removed by forest plan components identified in the selected alternative.</p> <p>Development is consistent with the reasonably foreseeable development scenarios analyzed as part of the 2015 GRSG FEIS and the associated LMPA. Additional impacts are expected to be within the range analyzed in 2015 GRSG FEIS cumulative impacts analysis.</p>
<p>Special Use Authorization for Use and Occupancy of Additional NFS Lands at Black Thunder Mine EA</p>	<p>USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Amendment of existing permit to add 353 acres for overstripping of topsoil and overburden and stockpiling material for reclamation and other mining activities at Black Thunder Mine, and restrict public access to an additional area.</p>	<p>Decision signed 11/9/2018. There is GRSG HMA within the project area. This project may disturb approximately 353 acres.</p> <p>The use of the 353 acres could lead to fragmentation and loss of habitat due to construction activities. However, most of these impacts should be removed by forest plan components identified in the selected alternative.</p>
<p>34.5-kilovolt Power Line and Right-of-Way at Antelope Mine CE</p>	<p>USFS, Medicine Bow-Routt NF, Douglas and Thunder Basin RD: Amend an existing special use authorization, named DGL344, to include construction and operation of a new power line segment at Antelope Mine within a new right-of-way in order to provide electricity to an existing entrance guard facility.</p>	<p>Decision signed 9/17/2018. There is GRSG HMA within the project area. The new power line segment is located within a new right of way. The project may result in the removal of vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
<p>West Fork Post & Pole CE</p>	<p>USFS, Bridger-Teton NF, Big Piney RD: Commercial thinning of live/dead/diseased lodgepole pine (35 acres). Harvesting would include a combination of ground based mechanized equipment</p>	<p>This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.</p>

Action	Location and Activity	Cumulative Effects
	and/or hand falling with chainsaws. Construction of ½ mile of temporary roads.	
Monument Ridge Vegetation and Recreation Management CE	USFS, Bridger-Teton NF, Big Piney RD: Relocation of Clarks Draw Trailhead and associated trail work; various vegetation treatments on and around Monument Ridge. Project developed with Sublette County Collaborative group.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Togwotee Lodge Vegetation Management CE	USFS, Bridger-Teton NF, Buffalo RD: Harvest of dead and dying trees infested with spruce beetle in the wildland urban interface zone to prevent the spread of infestation and subsequent increase in fuel loading adjacent to the resort.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Tribasin Salvage Commercial Timber Project CE	USFS, Bridger-Teton NF, Greys River RD: Commercial harvest of timber suffering mortality and decline due to insect and disease infestation.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Tepee Creek Fuels Reduction and Timber Thinning CE	USFS, Bridger-Teton NF, Pinedale RD: Tepee Creek Timber/Fuels project includes the thinning of timber and reduction of fuels on approximately 100 acres adjacent to the Tepee Creek Cow Camp, and realignment of up to 0.5 mile of the Union Pass Road for access.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Medicine Bow Landscape Vegetation Analysis (LaVA) Project EIS	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden and Laramie RDs: Insect and disease vegetation management project on 360,000 acres over 15-20 years to mitigate the negative effects of the current beetle epidemic.	There is 1,927 acres of PHMA and 17,281 acres of GHMA in this project. Effects for the project will be mitigated. However, the Biological Evaluation for the project states, “May adversely impact individuals, but not likely to result in a loss of viability in the Planning Area, nor cause a trend toward federal listing.” The project may contribute to cumulative effects to GRSG or its habitat.
Battle Mountain Prescribed Burn	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Prescribed burn to regenerate aspen in conifer-encroached aspen stands, re-introduce fire into a fire adapted ecosystem, and reduce continuous fuels near forest inholdings and perimeter.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
North Savery Project EIS	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Treat hazardous trees and fuels - Up to 6,834 acres hazard tree clearing, precommercial thinning & timber harvest; associated road proposals to improve motorized public access to the forest while minimizing road impacts to	Decision signed 5/25/2018. This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.

Action	Location and Activity	Cumulative Effects
	other resources	
Ryan Park Vegetation and Fuels Project CE	USFS, Medicine Bow-Routt NF, Brush Creek/Hayden RD: Treat up to 3,000 acres of vegetation to decrease hazardous fuels and increase resiliency of timber stands	Decision signed 5/1/2018. This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Fox Creek Vegetation Management Project CE	USFS, Medicine Bow-Routt NF, Laramie RD: Treat up to 3,000 acres in Mountain Pine Beetle infested stands of lodgepole pine.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Paul Allred - Pirates Gold Mining Claim CE	USFS, Medicine Bow-Routt NF, Laramie RD: Proposed mineral exploration using a dredge with a 5 inch diameter nozzle to reach deeper into holds in the creek bed. Original proposal included use of a 3-inch diameter nozzle. Project may include off-system motorized access to mining claim.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Paul Allred Locatable Minerals Project	USFS, Medicine Bow-Routt NF, Laramie RD: Proposed excavated trench measuring 51 feet wide by 80 feet long by 4 feet deep to locate gold. Trench will be placed adjacent to Douglas Creek. Trench will be backfilled.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Illinois River Vegetation Management Project CE	USFS, Medicine Bow-Routt NF, Parks RD: Treat up to 3,000 acres of mountain pine beetle effected timber stands	Decision signed 4/23/2018. This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Red Vista Vegetation Management Project CE	USFS, Medicine Bow-Routt NF, Yampa RD: Harvest treatments of up to 3,000 acres in mostly beetle killed conifers	Project cancelled 12/2018. This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Wyoming: Past acres burned on BLM-administered land	Approximately 137,000 acres of HMA burned between 2015 and 2017. Post fire restoration and habitat treatments are being implemented, as described below, to diminish impacts of habitat lost to wildland fire.
Fire Restoration (Emergency Stabilization and Rehabilitation)	BLM-administered lands in Wyoming: Past and Present – Habitat restoration following wildland fires	Approximately 4,030 acres of BLM-administered habitat are either currently being treated or scheduled to be treated according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire.
Habitat Treatments	BLM-administered lands in Wyoming: Past – Habitat improvement projects	More than 96,000 acres of GRSG habitat were treated between 2015 and 2017 to maintain or improve conditions for Greater Sage-Grouse.

Action	Location and Activity	Cumulative Effects
		Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/ restoration.
Land Use and Realty (issued and pending) 2015-2018	<p>BLM-administered lands in Wyoming: Past ROWs issued on BLM land</p> <p>BLM: Future pending</p>	<p>BLM Wyoming issued approximately 3,000 ROWs in the planning area between 2015-2017. This includes amendments and reauthorizations, which may not have resulted in new disturbance. For ROWs occurring in sage grouse habitat, effects were offset by the management prescriptions in the RMPs and ARMPA.</p> <p>There are approximately 590 ROW applications pending review and analysis. New ROWs under the Management Alignment Alternative would align with the management prescriptions of the Core Area Strategy and State of Wyoming Mitigation Framework. No additional cumulative impacts are anticipated, beyond those described.</p>
Oil and Gas	<p>BLM-administered lands in Wyoming: Past</p>	BLM Wyoming has offered for lease 861,634 acres; 812,123 acres of that total was leased. Leases followed management prescriptions in the RMPs and ARMPA and stipulations apply as described in the leases according to HMA category. Therefore, the act of leasing would have no cumulative effect.
	<p>BLM-administered lands in Wyoming: Future pending</p>	BLM Wyoming has a scheduled lease sale that will offer 198,588 acres for lease. The actions proposed in the Management Alignment Alternative to not propose to change stipulations analyzed in the 2014 and 2015 plans. Therefore, the act of leasing would have no cumulative effect.
Locatable Mineral Projects	<p>BLM-administered lands in Wyoming: Past and present locatable mineral projects</p>	Between 2015 and 2017, the BLM has approved 17 new mines and/or expansions within the planning area (including non-habitat). The Management Alignment Alternative does not propose changes to any decisions associated with locatable minerals, which were sufficiently analyzed on the existing plans.
	<p>BLM-administered lands in Wyoming: Future pending locatable mineral projects</p>	The BLM is currently reviewing 26 plans of operation for new mines, mine

Action	Location and Activity	Cumulative Effects
		expansions and notice-level activities. This number also includes 10 pending mine patents, which are in the process of being patented into private ownership. The Proposed Plan does not propose changes to any decisions associated with locatable minerals, and future impacts would be analyzed in future EISs, adhering to existing requirements of the RMPs and ARMPA.
Leasable Mineral Projects (Coal)	BLM-administered lands in Wyoming: Past and present leasable mineral projects (coal)	Two coal lease modifications were issued in 2018, totaling 1,306.61 acres. For lease modifications occurring in sage grouse habitat, effects were offset by the management prescriptions in the RMPs and ARMPA.
Leasable Mineral Projects (Coal)	BLM-administered lands in Wyoming: Future pending leasable mineral projects (coal)	BLM Wyoming is currently reviewing 4 coal lease applications/modifications totaling 10,148.56 acres. No management decisions for leasable minerals are proposed for change under the Proposed Plan.

4.7.4 CUMULATIVE EFFECTS - WILDLAND FIRE

The Forest Service has committed resources to habitat restoration. From 2015 to 2018, the Forest Service completed habitat restoration and various projects that benefit greater sage-grouse and its habitat on approximately 248,285 acres and 71 miles of linear features (see Table 4-16). The BLM has committed resources to habitat restoration and has treated 1.4 million acres of Greater Sage-Grouse habitat range-wide over the past 5 years.

Wildland fire and invasive species remain the greatest threats to greater sage-grouse in the Great Basin. Between 2008 and 2017, wildfires burned an average of 900,000 acres per year in greater sage-grouse habitat management areas range-wide²; this is within the range of projected wildland fire analyzed in the 2015 GRSG FEIS.

Since the 2015 GRSG ROD was signed, wildland fire data was compiled by the National Interagency Fire Center and summarized by the Forest Service from 2015 to 2018³. During that timeframe, 368,145 acres of greater sage-grouse HMA has burned on National Forest System lands in eleven states and 5,362,774 acres burned on all administrative agencies in those 11 states. The acres of NFS lands burned represents less than 1% of the greater sage-grouse acres burned on public lands in four years. Within the five states in the planning area, 215,295 greater sage-grouse acres of habitat have burned from 2016 to 2018. Data for wildland fires that may occur in 2019 will be collected and entered into databases in the winter of

² Removing 2012 and 2017, which were above-average wildland fire years, the 8-year average is approximately 500,000 acres burned per year.

³ Information can be found in: *Forest Service Greater Sage-grouse Monitoring Annual Report First Year Summary: September 2015-September 2016*; and *Forest Service Greater Sage-grouse Monitoring Annual Report, Second Year Summary: October 2016-September 2017*. It can also be found at: https://www.nifc.gov/fireandsagegrouse/docs/SG_SMA_Jurisdictional.pdf

2019 and is currently not available.

Table 4-17. Cumulative acres of GRSG habitat burned from 2015 to 2018 by administrative agency¹, across eleven states².

ADMINISTRATIVE AGENCY	2018 GRSG Acres Burned	2017 GRSG Acres Burned	2016 GRSG Acres Burned	2015 GRSG Acres Burned
Bureau of Indian Affairs	53,132	26,792	30,239	0
Bureau of Land Management	1,081,035	1,182,871	342,450	366,751
Fish and Wildlife Service	31,532	1,448	0	200
Forest Service	235,029	102,987	14,008	16,121
National Park Service	2	219	1,956	0
Private Lands	500,065	651,154	180,017	156,779
State Lands	118,048	50,878	23,775	22,623
Other Federal Lands	81,070	57,510	33,823	260
TOTAL	2,099,913	2,073,859	626,268	562,734

¹ Data compiled by the National Interagency Fire Center and summarized in the *Forest Service Greater Sage-grouse Monitoring Annual Report, Second Year Summary: October 2016-September 2017*. It can also be found at: https://www.nifc.gov/fireandsagegrouse/docs/SG_SMA_Jurisdictional.pdf

² The eleven states include: California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

Table 4-18. Cumulative acres of GRSG habitat burned from 2015 to 2018 representing all administrative agencies by states located in analysis area¹

State	2018 GRSG Acres Burned	2017 GRSG Acres Burned	2016 GRSG Acres Burned	2015 GRSG Acres Burned	Total Acres by State
Colorado	44,487	27,780	3,215	3,359	78,841
Idaho	503,875	251,443	104,849	260,931	1,121,098
Nevada	1,038,490	967,324	215,073	12,233	2,233,120
Utah	142,765	93,295	33,269	377	269,706
Wyoming	124,957	69,410	55,152	20,777	270,296
TOTAL	1,854,574	1,409,253	411,558	297,677	3,973,062

<https://www.nifc.gov/fireandsagegrouse/>

<https://www.nifc.gov/fireandsagegrouse/mapsData.html>

https://www.nifc.gov/fireandsagegrouse/docs/SG_SMA_Jurisdictional.pdf

Table 4-19. Acres of GRSG habitat burned in 2016-2018 on National Forest System lands by states located in analysis area.

State	2016 USFS GRSG Acres Burned	2017 USFS GRSG Acres Burned	2018 USFS GRSG Acres Burned
Colorado	0	0	759
Idaho	176	1,064	28,175
Nevada	3	4,056	161,788
Utah	4,077	35,164	8,388
Wyoming	2,138	0	16,185
Total	6,394	40,284	215,295

Wildland fires remain a threat to greater sage-grouse and its habitat. The Forest Service and other agencies implement some form of burned area emergency responses to address immediate threats following a fire in some areas, depending on the issue. The Forest Service has vegetation projects to restore habitat and projects intended to reduce impacts to greater sage-grouse and its habitat should a fire become established (see Table 4-16). Desired conditions, standards, guidelines, and management approaches in Chapter 2 have been developed and are intended to reduce the impacts of wildfire and invasive species.

Wildland fires burn an average of 900,000 acres per year in greater sage-grouse habitat management areas range-wide; this is within the range of projected wildland fire analyzed in the 2015 GRSG FEIS and this FEIS. Wildland fires and invasive species will continue to contribute toward negative cumulative effects, including loss of habitat and threats to greater sage-grouse itself in all alternatives. Under the State of Utah Alternative, 80,500 acres of GHMA and 41,200 acres of Anthro Mountain HMA designations would be removed along with corresponding plan components from the 2015 Greater Sage-Grouse Plan Amendments. While this does reduce the number of acres of HMA, treatment of invasive species and planned projects in Utah will continue.

4.7.5 CUMULATIVE EFFECTS - HABITAT MANAGEMENT AREA DESIGNATIONS

Since the 2015 GRSG ROD was signed, the Forest Service has coordinated with various state wildlife agencies and the USFWS to collect additional data and review new research about greater sage-grouse and its habitat. The Proposed Action includes a management approach that identifies a process for evaluating and updating HMA boundaries. As HMA boundaries were updated, the underlying HMA allocations developed to conserve greater sage-grouse would not change, and these updates reflect the most recent knowledge concerning greater sage-grouse habitat use and distribution. Changes in HMA acreage did not result in any direct or indirect impacts to greater sage-grouse or its habitat as discussed in Section 4.5.1. Because of this there would be no appreciable additive impact from the implementation of the Proposed Action on greater sage-grouse.

Under the State of Utah Alternative, GHMA and Anthro Mountain habitat designations would be removed along with corresponding plan components from the 2015 Greater Sage-Grouse Plan Amendments. This alternative would eliminate protections given to 41,200 acres of Anthro Mountain HMA and 80,500 acres of GHMA in all plan components. GHMA areas on NFS lands is approximately 5.6 percent of the Forest Service management area in Utah. These habitat areas tend to be fragmented habitats, areas containing small isolated populations, and many acres of unoccupied and non-habitats and is of low-biological significance to sage-grouse. In addition, GHMA on FS lands makes up only 1 percent of the habitat utilized by sage-grouse based on Utah's known GPS and telemetry data.

Management actions, including lek buffers, required design features, fluid mineral leasing prioritization, and habitat objectives—which are part of the No Action and Proposed Action—seek to minimize impacts on greater sage-grouse habitat within GHMA. They provide a hierarchy of potential conditions to minimize effects while still allowing for development. Thus, development could still occur in GHMA. Although GHMA remains a part of the No Action and Proposed Action, the potential decline for Greater Sage-Grouse in GHMA exists. Under the State of Utah Alternative, removing GHMA and its associated management actions would likely incentivize development in areas formally identified as GHMA, resulting in the continued long-term declines of greater sage-grouse population in GHMA. The long-term

effect of this alternative on greater sage-grouse is expected to ultimately be similar to effects in the No Action and Proposed Action. In conclusion, protections in PHMA will continue to be incentivized, development is allowed in GHMA and would be allowed without the designation, there would be minimal impacts to the 1% of GHMA habitat utilized by greater sage-grouse in Utah. The cumulative impacts from the alternatives would ultimately be the same, though the State of Utah Alternative would likely accelerate the effect.

The PHMA designation is not necessary for the Anthro Mountain population areas to ensure biological persistence of greater sage-grouse in northeastern Utah. In conclusion, removal of the 41,200 acres of Anthro Mountain HMA protections could lead to a loss of the Anthro Mountain leks and impact species persistence, but it would not necessarily result in a loss of greater sage-grouse viability on the Ashley NF.

4.7.6 CUMULATIVE EFFECTS - ELIMINATION OF SAGEBRUSH FOCAL AREA DESIGNATIONS/WITHDRAWALS

Direct and indirect effects of eliminating sagebrush focal area designations/withdrawals were discussed in Section 4.5.2. No appreciable additive impacts are anticipated for the removal of SFAs or the recommendation to withdraw SFAs from location and entry under the Mining Law of 1872. Under the Proposed Action and State of Utah Alternative, the recommendation to withdraw SFAs from location and entry under the Mining Law of 1872 would be removed, as the EIS process considering the withdrawal was cancelled on October 11, 2017. In its 2016 SFA Withdrawal EIS, the BLM quantified the possible adverse effects from locatable mineral exploration and mining on the approximately 10 million acres of SFAs proposed for withdrawal, finding that they would be limited to approximately 9,000 acres of surface disturbance over 20 years, with approximately 0.58 percent of greater sage-grouse male birds affected per year. The other action alternatives evaluated in the 2016 SFA Withdrawal EIS similarly demonstrated minimal benefit of the proposed withdrawal to greater sage-grouse and its habitat. The cumulative effects of implementing the Proposed Action and State of Utah Alternative are as described in the 2016 SFA Withdrawal EIS, under the No Action Alternative, in which SFAs are not carried forward.

Additionally, mining operations that do occur are subject to regulation under the BLM's surface management regulations at 43 CFR Part 3809. These regulations ensure that operators comply with environmental standards in conducting exploration, mining, and reclamation. For example, the Forest Service must approve a plan of operations for locatable mining operations on public lands, which includes compliance with the National Environmental Policy Act, National Historic Preservation Act, and Endangered Species Act. Plans of operation must also include those measures to meet specific performance standards and to prevent unnecessary or undue degradation of the lands (43 CFR 3809.411).

4.7.7 CUMULATIVE EFFECTS - CHANGING NET CONSERVATION GAIN AND ADJUSTMENT OF COMPENSATORY MITIGATION FRAMEWORKS

Direct and indirect effects of changing net conservation gain were discussed in Section 4.5.3. Under the Proposed Action Alternative, language would be added to clarify how project level decisions would be guided regarding the compensatory mitigation framework for a broad set of actions and the proposed modifications to the language will be more in line with state strategies.

Net conservation gain was analyzed in Alternative E in the 2015 GRSG FEIS and remains in place for the No Action Alternative and the Proposed Action for Nevada. Applicable analyses from the 2015 GRSG FEIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is

needed.

As a result of changing “net conservation gain” to “no net habitat loss,” there is the potential for incremental contributions to cumulative effects in Colorado, Idaho, Utah, and Wyoming (see Section 4.5.3). This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat. Improving higher quality habitat in PHMAs would be expected to benefit greater sage-grouse rather than focusing efforts in the lower quality habitat that GHMA provides. Conceptually, “no net loss” would result in fewer acres being restored, improved, or protected as compared with “net conservation gain.” The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat in the Proposed Action (1,998,400 acres of GHMA) and slightly more in the State of Utah Alternative (1,970,300 acres of GHMA). Any impacts associated with the need for compensatory mitigation, or the applicability of compensatory mitigation, would be identified during the environmental analysis at the site-specific project level.

Table 4-20. Comparison summary of habitat management areas in acres by Alternative.

NFS Surface Acres	No Action Alternative	Proposed Action Alternative	State of Utah Alternative
PHMA	2,821,400	2,608,200	2,566,100
GHMA	2,106,200	2,344,600	2,316,500
IHMA (ID Only)	416,300	416,300	416,300
OHMA (NV Only)	625,600	426,800	426,800
CHMA (WY Only)	-	6,400	6,400
Anthro Mountain HMA (UT Only)	42,100	-	-
Sagebrush Focal Areas (SFAs)	864,900 ²	-	-

¹ These acres overlay designated HMAs; the acres are not additive.

4.7.8 CUMULATIVE EFFECTS - MODIFYING LEK BUFFERS

Direct and indirect effects of modifying lek buffers in Idaho were discussed in Section 4.5.4. The change to the Proposed Action was to apply the minimum recommended buffer distances to IHMAs and GHMAs documented by a USGS literature review (Manier et al. 2014). Other restrictions in IHMA would ensure responsible development, although there is very little development in IHMA. Although this would be closer to leks, the distance would be within the minimum identified in literature (Manier et al. 2014). The reduced buffer distance in IHMA and GHMA would improve alignment with the Governor’s Plan and the best available science supports the distances.

No additive impact is anticipated by the change proposed to buffer distances under the Proposed Action. Site-specific impacts would be identified at the time a project-level application is received, and additional additive impacts would be analyzed at that time. Applicable analysis from the 2015 GRSF FEIS explains the impacts of lek buffers, and is incorporated by reference.

4.7.9 CUMULATIVE EFFECTS - INCLUDING WAIVERS, EXCEPTIONS, AND MODIFICATIONS ON NSO STIPULATIONS

Direct and indirect effects of including waivers, exceptions, and modifications on NSO stipulations were discussed in Section 4.5.5. The changes to the proposed action included a clarification to decision making (removal of the requirement for a unanimous finding between FS, USFWS, and the State), and including

CHMA for clarification in Wyoming. Because the proposed changes were clarifications, these actions would not result in any direct or indirect effects, therefore, it will not result in any contribution to cumulative effects. At a site-specific project level, the deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State the project is located in, would still be required under the adaptive management, mitigation, and HMA boundary modification processes according to each States' process (see Appendices B through F).

No additive impact is anticipated by the change proposed to fluid mineral leasing prioritization under the Proposed Action or State of Utah Alternative. A fluid mineral lease does not authorize surface-disturbing activities; therefore, impacts related to changes in the prioritization of leasing outside of PHMA would be likely to beneficially affect greater sage-grouse conservation. Site-specific impacts would be identified at the time a project-level application is received, and additional additive impacts would be analyzed at that time.

4.7.10 CUMULATIVE EFFECTS - MODIFYING DESIRED CONDITIONS

Direct and indirect effects of modifying desired conditions were discussed in Section 4.5.6. Under the Proposed Action and State of Utah Alternative, language would be modified in the habitat objectives table. This will allow the tables to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommended adjustments would be based on regionally and locally derived data. Modifying seasonal use periods and habitat preferences would better align with state conservation plans and management strategies resulting in improved management of greater sage-grouse. The proposed language is intended to clarify the use of the tables and does not alter management actions associated with the tables. The No Action Alternative does not preclude the use of the science supporting the objective defined by the No Action Alternative. Because the Proposed Action Alternative either does not alter management actions, or is included in the No Action Alternative, there are no cumulative effects from this change. Applicable analyses from the 2015 GRSG FEIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is needed.

4.7.11 CUMULATIVE EFFECTS - CHANGING LIVESTOCK GRAZING GUIDELINES

Direct and indirect effects of changing livestock grazing guidelines were discussed in Section 4.5.7. The 2015 Greater Sage-Grouse Plan Amendments listed a Desired Condition for livestock grazing being "managed to maintain or move towards desired conditions". The desired condition is being modified or removed in the Proposed Action and State of Utah Alternative because it does not provide any specific direction and is a circular statement; a desired condition cannot be to maintain or move toward a desired condition. The desired conditions for breeding, nesting, upland summer, and winter habitats are defined for each state. Changes and clarifications will not result in any direct, indirect, or cumulative effects.

The Proposed Action and State of Utah Alternative proposes to modify language regarding water developments in HMAs. Water developments can be an effective tool to ensure proper grazing management that could improve or maintain greater sage-grouse habitat indirectly over time. The approval and/or the construction of a water development is inherently a site-specific determination, which would be considered in a separate analysis process which would consider effects to biological resources, including greater sage-grouse. These changes and clarifications will not result in any direct, indirect, or cumulative effects.

Under the Proposed Action and State of Utah Alternative, specific grass-height guidelines are replaced with management approaches that would have greater sage-grouse habitat assessments conducted in allotments to determine if livestock management is a causal factor. Based on the new understanding of habitat characteristics, plant phenology and sampling bias (Hanser et al. 2018), the biological foundation for the development of the 2015 Greater Sage-Grouse Plan Amendments grazing guidelines has changed and this changed condition warrants removal of the grazing guidelines, which are not necessary as conservation measures for sage-grouse.

As described in section 4.5.6, monitoring of greater sage-grouse seasonal habitats, monitoring associated with droop heights on grasses, and stubble height monitoring during 2016-2017 showed the majority in suitable condition and showed that the existing land management plan direction was providing sufficient direction for meeting criteria identified in the 2015 Greater Sage-Grouse Plan Amendments grazing guidelines (USDA FS 2018). Monitoring data specific to the Humboldt-Toiyabe National Forest indicate that many riparian areas and mesic meadows in HMAs are not in proper functioning condition or moving toward desired conditions for sage-grouse brood-rearing habitat. Additional plan components are included in the Nevada proposed action to address this issue. Monitoring will continue.

Replacing specific grass-height guidelines with management approaches and guidelines will not result in any direct, indirect, or cumulative effects. Existing plan components, when compared to published scientific findings, are generally compatible with habitat requirements for sage-grouse and monitoring shows that livestock grazing is not affecting the achievement or maintenance of desired conditions described in the 2015 Greater Sage-Grouse Plan Amendments.

In the few cases where grazing is a causal agent for not providing suitable habitat or adequate plant species diversity or cover, Forests may implement specific management changes on the respective allotments. It is more appropriate to address these issues at the forest or allotment level rather than through grazing guidelines applied at a regional scale.

4.7.12 CUMULATIVE EFFECTS - ADAPTIVE MANAGEMENT REVIEW PROCESS

Direct and indirect effects of the adaptive management process were discussed in Section 4.5.8. There is no anticipated additive impact from updating the adaptive management process as described in the Proposed Action or the State of Utah Alternative. The updated language does not alter the adaptive management actions described and analyzed in the No Action Alternative; instead, it aims to codify the intent and ability to return to previous management actions once an identified threat has been alleviated.

This update would ensure that the FS is more closely aligned with State processes, the process is clarified, and best available data and decision support tools to guide management are utilized at the appropriate spatial scale. It also allows for more flexibility and applicability of the adaptive management process. Impacts on Greater Sage-Grouse and its habitat would be beneficial as a result of this update to adaptive management triggers, providing the ability to detect declining populations and/or habitat and change management on the ground.

4.7.13 CUMULATIVE EFFECTS - TREATMENT OF INVASIVE SPECIES

Direct and indirect effects of the treatment of invasive species were discussed in Section 4.5.9. The Proposed Action and the State of Utah Alternative includes the addition of desired conditions, objectives,

and management approaches that emphasize invasive plant treatments, with a focus on annual grasses. The impact of invasive species and the effect of treatments on sage-grouse habitat was analyzed in each state 2015 GRSG FEIS and analysis is incorporated by reference. Impacts are similar to those disclosed in the 2015 analysis. The addition of these plan components is to emphasize mapping and treatment of invasive species, which are one the greatest threats to greater sage-grouse. Therefore, the addition of the forest plan components will create beneficial cumulative effects.

4.7.14 CUMULATIVE EFFECTS - CALCULATING DISTURBANCE CAPS

The removal of the project level disturbance cap in Idaho would not result in any changes to allocation decisions; rather, it would allow the FS to group development in PHMA and IHMA only after meeting the anthropogenic disturbance screening criteria and the disturbance development criteria. The existing disturbance screening criteria and the disturbance development criteria would ensure that impacts from development activities in both PHMA and IHMA would not result in a net loss to greater sage-grouse habitat.

4.7.15 CUMULATIVE EFFECTS – CONSISTENCY WITH THE 2012 PLANNING RULE

The No Action Alternative and 2015 GRSG ROD and LMPA was developed under the 1982 Planning Regulations. The suite of desired conditions, objectives, standards, and guidelines in the Proposed Action and the State of Utah Alternative were developed to provide direction for the potential activities that can occur in greater sage-grouse habitat and consistent with the 2012 Planning Rule. In addition, management approaches, which are identified as optional content in the plan, were also included. There is no effect and no reduction in protection to greater sage-grouse or its habitat as a result of identifying a plan component that had been mislabeled and identifying it as a management approach in order to be consistent with the 2012 Planning Rule.

4.7.16 CUMULATIVE EFFECTS - NOISE STANDARDS

Specify HMA designations when applying noise standard

In Idaho, Utah, and Wyoming, analysis was done specifying HMAs designations for applying the noise standard in the 2015 GRSG FEIS. For Idaho, it was PHMA and IHMA and for Utah and Wyoming it was PHMA. The language for specification of HMAs was not included in the FS RODs; they are being included in this amendment to improve implementation of the plan components.

The impacts associated with clarifying that the noise measurement and monitoring would apply only to leks within greater sage-grouse PHMA (and IHMA in Idaho) would have similar impacts as those described under the No Action Alternative for the 2015 GRSG LMPA (Location of analysis is found in Table 4-1, Noise/Soundscape). PHMA are areas that were identified as having the highest conservation values for maintaining sustainable greater sage-grouse populations. Therefore, standards to limit noise in PHMA would reduce displacement of birds from nesting and breeding areas and provide the greatest benefit to greater sage-grouse. The removal of standards to limit noise in GHMA may result in localized, adverse impacts on greater sage-grouse, but would not cumulatively affect greater sage-grouse conservation in Idaho, Utah, and Wyoming.

4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Section 102(2)(C) of NEPA requires a discussion of any irreversible or irretrievable commitments of resources from an alternative, should it be implemented (42 USC 4332(C)(v)). An irreversible commitment of a resource is one that cannot be reversed, such as the extinction of a species or loss of a cultural resource site without proper documentation; an irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time, such as extraction of oil and gas.

Implementation of the Proposed Action and State of Utah Alternative would still allow for surface-disturbing activities, including mineral and energy development and infrastructure development that would result in irreversible or irretrievable commitments of resources. These surface-disturbing activities would result in long-term or permanent alterations to soil, removal of vegetation cover, fragmentation of wildlife habitat, and damage to cultural and paleontological resources. Wildlife dependent on affected habitats may be displaced and populations may be reduced as the carrying capacity of the range is reduced.

Increases in sediment, salinity, and nonpoint source pollution that result from these activities could result in degradation of water quality and an irretrievable loss of water utility, aquatic habitats, and aquatic-dependent species. Impacts on these resources are detailed in the 2015 GRSF FEIS and ROD, and are not repeated in this FEIS; however, management prescriptions and mitigation prescribed under the existing LMP decisions that are designed to protect greater sage-grouse habitat would reduce the magnitude of these impacts by limiting surface disturbance and disruptive activities.

Because none of the proposed changes identified in this FEIS identify additional irreversible or irretrievable commitments of resources, there is no expectation that impacts additional to or different from those identified in the 2015 GRSF FEISs would occur.

4.9 UNAVOIDABLE ADVERSE IMPACTS

Section 102(C) of NEPA requires disclosure of any adverse environmental impacts that could not be avoided should the proposal be implemented (42 USC 4332(C)(ii)). Unavoidable adverse impacts are those that remain following the implementation of mitigation measures or impacts for which there are no mitigation measures. Some unavoidable adverse impacts happen from implementing the LMPA; others are a result of public use of Forest Service-administered lands in the planning area.

There are no unavoidable adverse impacts identified that would be additional to, or different from those identified in the 2015 GRSF FEISs. It is likely that local adverse effects may occur as a result of the implementation of the Proposed Action or State of Utah Alternatives; however, they would be similar to those local adverse effects identified in the 2015 GRSF FEISs and would not affect greater sage-grouse conservation.

4.10 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Section 102(C) of NEPA requires a discussion of the relationship between local, short-term uses of human environment and the maintenance and enhancement of long-term productivity of resources (42 USC 4332(C)(iv)). Short-term is defined as anticipated to occur within the first 5 years of implementation of the activity; long-term is defined as following the first 5 years of implementation but within the life of the LMPA.

Any use of natural resources within the planning area is likely to adversely impact long-term productivity

of these natural resources. The short-term uses that would result in the greatest impact on long-term productivity include mineral and energy development, dispersed recreation, improper livestock grazing, and infrastructure development. These uses result in surface-disturbing and disruptive activities that remove vegetation, increase soil erosion and compaction, create visual intrusions and landscape alterations, increase noise, impair water quality, and degrade and fragment wildlife habitat.

Although management actions, BMPs, surface use restrictions, and lease stipulations are intended to minimize the effect of short-term uses, some impact on long-term productivity of resources would occur, regardless of management approach; however, because allocations are not being affected and impacts as a result of the Proposed Action or State of Utah Alternative would be minimal, no additional or different impacts on short-term uses and long-term productivity than those that were identified in the 2015 GRSG FEISs would occur.

CHAPTER 5 - Preparers and Distribution of the FEIS

The Forest Service consulted the following individuals, Federal, State, and local agencies, tribes and other organization and individuals during the development of this environmental impact statement. Refer to Chapter 1 for list of cooperating agencies and tribes consulted.

5.1 PREPARERS

The list of preparers in Table 5-1 is limited to people who were members of the interdisciplinary team who worked on compiling the FEIS document. Preparation of the document was also supported and assisted by numerous employees of the Intermountain and Rocky Mountain Regional Offices.

Table 5-1. List of Preparers.

Name	Title/Unit	Role/Responsibility
John Shivik	National Sage-grouse Coordinator, Intermountain Region	Coordination and Document Preparation
Jennifer Purvine	ID Team Leader, (detail) Intermountain Region, Salmon-Challis NF	Analysis and Document Preparation
Amy C. Barker	Branch Chief, WO EMC, NEPA Staff	Analysis and Document Preparation
Robert Mickelsen	Ecosystem Branch Chief, Caribou-Targhee NF	Idaho GRSB Technical Specialist
Monique Nelson	Sage-grouse Coordinator, Humboldt-Toiyabe NF	Nevada GRSB Technical Specialist
Ron Rodriguez	Wildlife and Fish Program Manager, Dixie and Fishlake NFs	Utah GRSB Technical Specialist
Steve Kozlowski	Resource Team Leader, Medicine Bow-Routt NF	NW Colorado and Wyoming GRSB Technical Specialist
Sue Baughman	Minerals Administrator, Dixie NF	Minerals Technical Specialist
Sharon Gresl	Leasing Program Specialist, Washington Office	Minerals Technical Specialist
Liane Mattson	Geologist, Washington Office	Minerals Technical Specialist
Georgina Lampman	R4 Regional Planner, Intermountain Region	Review
Sandra Underhill	Wyoming Capitol City Coordinator, Medicine Bow-Routt NF	Communication Plan
Dalinda Damm	Geospatial Analyst, FS Contractor Cherokee Nation Technologies	GIS
Kevin Halverson	Information Management, Intermountain Region	GIS

5.2 DISTRIBUTION OF THE FINAL EIS

The following agencies, organizations and individuals have been sent copies of the FEIS or have been directed to the Greater Sage-grouse Home Page where the FEIS is available online at: <https://www.fs.usda.gov/detail/r4/home/?cid=stelprd3843381>. The identified organizations or individuals are either required by regulation or they have asked to be sent the FEIS. The FEIS is available online to anyone who wishes to access it and hardcopies are available to those who request.

Federal Government

- Advisory Council on Historic Preservation
- Department of Energy, National Environmental Policy Act Policy and Compliance
- Federal Aviation Administration, Northwest Mountain Region
- Federal Highway Administration
- U.S. Army Corps of Engineers, Northwestern Division
- USDA Animal and Plant Health Inspection Service, Policy and Program Development/Environmental Analysis and Documentation
- USDA Office of Civil Rights
- U.S. Department of Agriculture - National Agricultural Library
- U.S. Department of Agriculture, Natural Resources Conservation Service, National Environmental Coordinator
- U.S. Department of the Interior, Office of Environmental Policy and Compliance
- U.S. Environmental Protection Agency
- Northwest Power Planning Council
- Chief of Naval Operations, Energy and Environmental Readiness Division

State and Local Government Requesting Cooperating Agency Status

A list of Cooperating Agencies is located in Chapter 1, section 1.8.

Tribal Governments

Region 2

- Southern Ute Tribe
- Ute Mountain Ute Tribe (Weeminuche Band)
- Northern Arapaho
- Eastern Shoshone
- Cheyenne and Arapaho Tribes
- Cheyenne River Sioux Tribe

- Crow Creek Sioux Tribe
- Lower Brule Sioux Tribe
- Oglala Sioux Tribe
- Rosebud Sioux Tribe
- Santee Sioux Tribe of Nebraska
- Sisseton-Wahpeton Oyate Tribes
- Standing Rock Sioux Tribe
- Three Affiliated Tribes
- Yankton Sioux Tribe

Region 4

- Battle Mountain Band (Shoshone)
- Bridgeport Indian Colony (Paiute)
- Bridgeport Indian Colony (Paiute)
- Carson Colony (Washoe)
- Dresslerville Community (Washoe)
- Duckwater Shoshone Tribe
- Elko Band (Western Shoshone)
- Fallon Colony Paiute-Shoshone Tribe
- Lovelock Paiute
- Pyramid Lake Paiute
- Reno-Sparks Colony (Washoe, Paiute)
- South Fork Band Colony
- Summit Lake Paiute Tribe
- Walker River Paiute
- Washoe Tribe- Includes: Carson, Dresslerville, Stewart, Washoe, Reno-Sparks, Woodsfords Colonies
- Wells Band Colony
- Winnemucca Indian Colony (Paiute & Shoshone)
- Woodsfords Community (Washoe)
- Yerington Paiute
- Yomba Shoshone
- Ely Shoshone
- Shoshone-Paiute Tribe
- Te-Moak Tribe of Western Shoshone
- Northwestern Band of Shoshoni Nation
- Paiute Indian Tribe of Utah
- Skull Valley Band of Goshute
- Shoshone-Bannock Tribes

Individuals and Organizations

Individuals and organizations who commented on the DEIS were notified of the availability of the FEIS.

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GLOSSARY OF TERMS AS USED IN THIS FEIS

Active lek – Any lek that has had two or more males observed at least twice in the last five years.

Additionality (Additive) – In the context of compensatory mitigation, the conservation benefits of compensatory mitigation are a demonstrably new replacement for a loss of habitat that would not have resulted without the compensatory mitigation project.

Adjacent – Installation of new linear improvements parallel, near, or next to existing linear improvements.

Administrative access – Access for resource management and administrative purposes such as wildfire suppression, cadastral surveys, permit compliance, law enforcement, and military in the performance of their official duty, or other access needed to manage National Forest System lands or uses.

Allotment – A designated area of land in which one or more livestock operators graze their livestock. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Ambient (noise level) – Sometimes called background noise level, reference sound level, or room noise level; the background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

Anthropogenic disturbances – Human-created features including but not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells and associated facilities, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

Appurtenant (minerals) – A piece of equipment (e.g., pump jack, separator, storage tank, compressor station, metering equipment, etc.) necessary for production.

Authorized (Forest) officer – The Forest Service employee delegated the authority to perform a duty described in 36 CFR §228.104. Generally, a Regional Forester, Forest Supervisor, District Ranger, or Minerals Staff Officer, depending on the scope and level of the duty to be performed.

Authorized use – An activity (i.e., resource use) occurring on public lands that is either explicitly or implicitly recognized or legalized by law or regulation. The term may refer to activities occurring on public lands for which the Forest Service has issued a formal authorization document (e.g., livestock grazing permit, special-use authorization, approved plan of operation, etc.). Formal authorized uses can involve both commercial and non-commercial activity, facility placement, or event. These authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved forest plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting, etc.) require no formal Forest Service authorization.

Avoidance mitigation – Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR §1508.20(a)) (e.g., may also include avoiding the impact by moving the proposed action to a different time or location.)

Baseline condition – The pre-existing condition of a defined area and/or resource that can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists at the time of the review's initiation and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

Biologically Significant Unit – A geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitat that is used as the basis for comparative calculations to support evaluation of changes to habitat. A Biologically Significant Unit or subset of the unit is used in the calculation of the anthropogenic disturbance threshold and in the adaptive management habitat trigger. Specifically:

- *NW Colorado*- A geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitat that is used as the basis for comparative calculations to support evaluation of changes to habitat. A Biologically Significant Unit or subset of the unit is used in the calculation of the anthropogenic disturbance threshold and in the adaptive management habitat trigger.
- *Idaho*- All of the modeled nesting and delineated winter habitat, based on 2011 data, within priority and/or important habitat management areas within a Conservation Area.
- *Utah*- The total priority habitat management area associated with a greater sage-grouse population area.
- *Nevada*- Represents nested lek clusters with similar climate and vegetation conditions. A BSU boundary is defined by similar environmental conditions where GRSg population dynamics are likely driven by larger scale variations (e.g., climate). BSUs are defined by the USGS (Coates et al. 2017) and are also used for anthropogenic disturbance calculations.

Causal factor – A resource use or activity (e.g., livestock grazing or oil and gas development) or other factor (e.g., wildfire or drought) contributing to the decline of GRSg habitat and/or populations as identified under the Adaptive Management, resulting in a soft or hard trigger being tripped. A causal factor can occur singly or in combination with one another.

Co-location – Installation of new linear improvements (i.e., communication towers, electrical lines, other rights-of-way, or designated corridors) in, on, or adjacent to existing linear improvements.

Communication tower site – Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, or passive reflector).

Compensatory mitigation – Compensating for the residual impact of a certain action or parts of an action by replacing or providing substitute resources or environments(s). (40 CFR §1508.20)

Compensatory mitigation projects – The restoration, creation, enhancement, and/or preservation of impacted resources (adopted and modified from 33 CFR §332), such as on-the-ground actions to improve and/or protect habitat (e.g., chemical vegetation treatments, land acquisitions, conservation easements, etc.).

Compensatory mitigation sites – The durable areas where compensatory mitigation projects will occur. Durability (protective and ecological): the maintenance of the effectiveness of a mitigation site and project for the duration of the associated impacts, which include resource, administrative/legal, and financial considerations.

Connectivity Habitat Management Area (CHMA) – Management areas whose boundaries match Wyoming State designated Connectivity areas. They are identified as important to maintain transmission of genetic material between core area populations. CHMA may or may not include breeding, late brood-rearing, and winter habitats. Connectivity Habitat Management Areas are only in Wyoming.

Conservation Area (Idaho and Utah as administered by the Sawtooth NF) – Areas determined to be necessary to monitor population objectives to evaluate the disturbance density and adaptive regulatory triggers and engage adaptive management responses. Conservation Areas may contain priority, important, and general habitat management areas. Specifically, these areas are Mountain Valleys, Desert, and West Owyhee.

Controlled surface use – A category of moderate constraint stipulations that allows some use and occupancy of public land while protecting identified resources or values and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads, etc.).

Core Habitat – Core habitats are areas designated in the State of Wyoming’s Sage-grouse Executive Order as the most important for Greater Sage-Grouse and include breeding, late brood-rearing, and winter habitats. They do not include known migration or connectivity corridors or winter concentration areas. In Wyoming, PHMA boundaries match Core Habitat boundaries identified in the Wyoming Sage-grouse Executive Order, Version 4 maps.

Corridor – A tract of land varying in width forming passageway through which various commodities such as oil, gas, and electricity are transported.

Desired Condition (DC) – 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.

Disruptive activities – Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to the greater sage-grouse population occurring at a specific location and/or time. Actions that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected or an individual's physiological ability to cope with environmental stress is compromised.

Distribution line – An electrical utility line with a capacity of less than 100kV or a natural gas, hydrogen, or water pipeline less than 24” in diameter.

Diversity (biological) – The number and distribution of plant and animal species within a specified geographic area. For purpose of the National Forest Management Act, the geographic area is a national forest or grassland unit.

Durable (protective and ecological) – The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist.

Enhance – The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the habitat (e.g., road commissioning) to meet greater sage-grouse objectives.

Exception (minerals) – A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply. The authorized officer (any employee of the Forest Service to whom has been delegated the authority to perform the duties described in the applicable Forest Service manual or handbook) may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of the greater sage-grouse.

Existing rights – Documented legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted, permitted, or otherwise authorized under various statutes of law over time.

Feasible – See technically/economically feasible.

Fluid minerals – Oil, gas, coal bed natural gas, and geothermal resources.

Forage reserve – Designation for allotments on which there is no current term permit obligation for some or all of the estimated livestock grazing capacity and where there has been a determination made to use the available forage on the allotment to enhance management flexibility for authorized livestock use (FSH id_2209.13-2007-1).

Forest transportation system – Roads, trails, and areas designated for motor vehicle use that provide access to National Forest System lands for both motorized and non-motorized uses in a manner that is socially, environmentally, and economically sustainable over the long-term; enhances public enjoyment of National Forest System roads; and maintains other important values and uses.

General Habitat Management Area (GHMA) – Management areas that are likely to be occupied seasonally or year-round outside of PHMAs or other defined management areas where GHMA management would apply to sustain the GRSG population. GHMA may include active leks, seasonal habitats, and fragmented or marginal habitat. These areas have been identified by the FS and BLM in coordination with respective state wildlife agencies. Idaho, Nevada, Utah, Wyoming, and Colorado have GHMA.

Guideline (GL) – 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, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

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

all of its life cycle.

Hard trigger – A threshold indicating that immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives set forth in the land and RMP.

High-voltage transmission line – An electrical power line that is 100 kilovolts or larger.

High elevation – High elevation covers mid to high elevation areas comprised primarily of basin (mid-elevation) and mountain big sagebrush (high-elevation), as well as other mesic and higher elevation vegetation communities. (Previously the Mesic precipitation zone).

Holder – An individual or entity that holds a special-use authorization.

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

Important Habitat Management Areas (IHMA) – Areas that contain additional habitat and populations that provide a management buffer for PHMA and to connect patches of PHMA. IHMAs are typically adjacent to PHMAs but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. IHMAs are only in Idaho.

Indicators – Factors that describe resource condition and change and can help the BLM and the Forest Service determine trends over time.

Invasive species (invasive plant species, invasives) – An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The species must cause or be likely to cause harm and be exotic to the ecosystem it has infested before considered invasive.

Isolated parcel – An individual parcel of land that may share a corner but does not have a common border with another parcel.

Key habitat – Key habitat includes areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year. The Key Habitat Map in Idaho is updated annually and tracks effective habitat, effects to that habitat from fire, restoration efforts and use by GRSG.

Landownership adjustment – Land adjustments to National Forest System lands by purchase, exchange, interchange, or conveyance under authority delegated by law to the Secretary of Agriculture.

Landscape – A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view.

Landscape scale – At a scale that allows for bird dispersal and migration movements within the population and subpopulation area (Stiver et al 2015).

Lease – A contract granting use or occupation of property during a specified period in exchange for a specified rent or other form of payment; a type of special-use authorization (usually granted for uses other than linear rights-of-way) that is used when substantial capital investment is required and when conveyance of a conditional and transferable interest in National Forest System lands is necessary or

desirable to serve or facilitate authorized long-term uses and that may be revocable and compensable according to the terms.

Leasable minerals – Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal and some non- energy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lek – A courtship display area attended by the male greater sage-grouse in or adjacent to sagebrush-dominated habitat.

Lek cluster – A group of leks in the same vicinity, among which GRSG may interchange over time and representing a group of closely related individuals. A lek cluster boundary is defined by minimal GRSG movement between clusters, so demographic rates are influenced by birth/death rates rather than immigration/emigration. Lek clusters are defined by the USGS (Coates et al. 2017).

Lek Perimeter – The outer perimeter of a lek and associated satellite leks (if present). Perimeters of all leks should be mapped by experienced observers using accepted protocols, by state. Perimeters may vary over time as population levels or habitat and weather conditions fluctuate. However, mapped perimeters should not be adjusted unless grouse use consistently (2+ years) demonstrates the existing perimeter is inaccurate. The lek location must be identified and recorded as a specific point within the lek perimeter. This point may be the geographic center of the perimeter polygon calculated through a GIS exercise, or a GPS waypoint recorded in the field, which represents the center of breeding activity typically observed on the lek (WDFG 2012).

Lessee – A person or entity holding record title in a lease issued by the United States; a person or entity authorized to use and occupy National Forest System lands under a specific instrument identified as a lease.

Livestock conversion – To change the kind of livestock authorized to graze on National Forest System lands (e.g., a change from sheep to cows).

Locatable minerals – Mineral disposable under the General Mining Act of 1872, as amended, that was not excepted in later legislation. These include hardrock, placer, and industrial minerals and uncommon varieties of rock found on public domain lands.

Low Elevation – Low elevation areas in the state, comprised primarily of Wyoming big sagebrush communities, with some basin big sagebrush included. (Previously the Arid precipitation zone).

Major pipeline – A pipeline that is 24 inches or more in outside-pipe diameter (Mineral Leasing Act of 1920, as amended, 30 U.S.C. § 181; 36 CFR §251.54(f)(1)).

Management Approach – A management approach is a statement of the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities in the plan area. A management approach is optional content in a land management plan, is not a plan component, and can be changed, or added to or removed from a land management plan, following notice to the public. 36 CFR §219.7(e)(2), and §219.13(c).

Marginal habitat – An area that supports the species but has generally lower survival rates and reproductive success by comparison and may or may not have the potential to become suitable in the future (Stiver et al. 2015).

Mineral – Any naturally formed inorganic material; solid or fluid inorganic substance that can be extracted from the earth; any of various naturally occurring homogeneous substances (e.g., stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920, as amended), and salable (subject to the Materials Act of 1947).

Mineral materials – Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

Minimization mitigation – Minimizing impacts by limiting the degree or magnitude of the action and its implementation (40 CFR §1508.20 (b)).

Mitigation – Mitigation, as described in the White House Council on Environmental Quality's (CEQ's) NEPA regulations at 40 CFR 1508.20, is the hierarchy of avoiding environmental impacts, minimizing impacts, and/or compensating for residual impacts. Thus, mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action, minimizing the impact by limiting the degree of magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitating, or restoring the affected environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and compensating for the impact by replacing or providing substitute resources or environments.

Modification (oil and gas) – A fundamental change to the provisions of a lease stipulation either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

Native plant species – A plant species that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions.

Net conservation gain – The actual benefit or gain realized after a proposed action; it may be shown by a net increase in sage-grouse habitat above the baseline conditions that existed before a proposed action. Actions which result in habitat loss and degradation include those identified as threats which contribute to GRSB disturbance as identified by the USFWS in its 2010 listing decision (75 *Federal Register* 13910).

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

No net habitat Loss – Retaining an equivalent amount of sage-grouse habitat after a proposed action that is equal to or above baseline conditions that existed before the proposed action.

Non-habitat – An area within the historical distribution of sage-grouse that is unoccupied, does not currently provide habitat, and does not have the potential to provide habitat in the foreseeable future (<100 years) (Stiver et al. 2015).

Objective (O) – 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.

Occupied lek – A lek that has been active during at least one strutting season within the prior 10 years.

Other Habitat Management Area (OHMA) – Areas determined to be moderate to low habitat suitability for greater sage-grouse in areas of estimated low space use. This habitat management class represents areas with appropriate environmental conditions for greater sage-grouse, but that are less frequently used by greater sage-grouse. OHMA is only designated in Nevada.

Pending lek – Any lek that has two or more males observed only once in the last five years.

Permit – A special-use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System lands or facilities for specified purposes and which is both revocable and terminable.

Permit cancellation – Action taken to permanently invalidate a term grazing permit in whole or part.

Persistent woodlands – Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

Plan of operation – A Plan of Operation is required for all mining activity conducted under the General Mining Act of 1872, as amended, if the proposed operations will likely cause significant disturbance of surface resources. The Plan of Operation describes the type of operations proposed and how they would be conducted; the type and standard of existing and proposed roads or access routes; the means of transportation to be used; the period during which the proposed activity will take place; and measures to be taken to meet the requirements for environmental protection (36 CR 228.4).

Practicable – Useful and able to be done or put into practice successfully.

Prescribed fire – Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and National Environmental Policy Act requirements, where applicable, must be met before ignition.

Priority Habitat Management Areas (PHMA) – Management areas that have been identified as having the highest conservation value to maintaining sustainable GRSB populations. These areas are occupied seasonally or year-round and include breeding, late brood-rearing, and winter habitat. The FS and BLM have identified these areas in coordination with respective state wildlife agencies. Idaho, Nevada, Utah, Wyoming, and Colorado have PHMA. In Wyoming, PHMA boundaries match Core Areas identified in the Wyoming Sage-grouse Executive Order, Version 4 maps.

Prohibit – To forbid (something) by law, rule, or other authority; no authorizations will be issued, meaning no authorization will be granted.

Proper Functioning Condition – A riparian-wetland area in which adequate vegetation or other structure components are present to dissipate energy, reduce erosion and improve water quality, filter sediment and aid in floodplain development, improve flood-water retention and ground-water recharge, stabilize streambanks and shorelines, develop diverse ponding and channel characteristics for fish and wildlife habitat among other things, and support greater biodiversity.

Reclamation plans – Plans that guide the suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

Residual impacts – Impacts from an implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

Responsible official – The Agency employee who has the authority to make and implement a decision on a proposed action (36 CFR 220.3).

Restoration – Implementation of a set of actions that promotes plant community diversity and structure that allows plant communities to be more resilient to disturbance and invasive species over the long-term. The long-term goal is to create functional, high quality habitat that is occupied by the greater sage-grouse. The short-term goal may be to restore the landform, soils, and hydrology and increase the percentage of preferred vegetation, seeding of desired species, or treatment of undesired species.

Restriction/restrict – A limitation or constraint, not a prohibition, on public land uses and operations. Restrictions can be of any kind but most commonly apply to certain types of vehicle use, temporal and/or spatial constraints, or certain authorizations.

Right-of-way – Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under, or through such land.

Road or trail – A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

Sagebrush Focal Areas – Areas identified by the U.S. Fish and Wildlife Service that represent recognized “strongholds” for the greater sage-grouse that have been noted and referenced as having the highest densities of greater sage-grouse and other criteria important for the persistence of the species.

Satellite lek – A relatively small lek (usually less than 15 males) within about 500 meters of a large lek often documented during years of relatively high grouse numbers. Locations of satellite leks should be encompassed within lek perimeter boundaries.

Soft triggers – An intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses.

Special-use authorization – A written permit, term permit, lease, or easement that authorizes use or occupancy of National Forest System lands and specifies the terms and conditions under which the use or occupancy may occur.

Standard (ST) – 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.

Stipulation (general) – A term or condition in an agreement, contract, or written authorization.

Stipulation (oil and gas) – A provision that modifies standard lease rights and is attached to and made a part of the lease. Lease stipulations include No Surface Occupancy, Timing Limitations, and Controlled Surface Use.

Suitable habitat – An area that provides environmental conditions necessary for successful survival and reproduction to sustain stable populations (Stiver et al. 2015).

Surface disturbing activities – Actions that alter the vegetation, surface/near surface soil resources, and/or surface geologic features beyond natural site conditions and on a scale that affects other public land values. Examples of surface disturbing activities may include operation of heavy equipment to construct well pads, roads, pits, and reservoirs; installation of pipelines and power lines; maintenance activities; and several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be restricted, not allowed, or not authorized.

Surface occupancy – Placement or construction on the land surface of semi-permanent or permanent facilities requiring continual service or maintenance. Casual use is not included.

Surface use – Activities that may be present on the surface or near-surface (e.g., pipelines) of public lands. When administered as a use restriction (e.g., No Surface Occupancy), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study enclosure, etc.) and/or administrative sites (e.g., government ware-yard, etc.) where only authorized agency personnel are admitted.

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

Technically/economically feasible – Actions that are practical or feasible from the technical and economic standpoint and using common sense rather than simply desirable from the standpoint of the applicant. It is the Forest Service's responsibility to determine what actions are technically and economically feasible based on a review of the applicant's rationale and the available best science. The Forest Service will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit.

Temporary special-use permit – A type of permit that terminates within 1 year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits.

Temporary special-use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

Term permit – An authorization to occupy and use National Forest System lands other than rights-of-way for a specified period that is both revocable and compensable according to its terms.

Timeliness – The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives.

Timely – The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun.

Timing limitations – A moderate constraint, applicable to fluid mineral leasing, on all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes; construction of wells and/or pads); and other surface disturbing activities (i.e., those not related to fluid mineral leasing). Areas identified for Timing Limitations are closed to fluid mineral exploration and development; surface-disturbing activities; and intensive human activity during identified timeframes. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. Timing Limitations can overlap spatially with No Surface Occupancy and Controlled Surface Use, as well as with areas that have no other restrictions.

Transmission line – An electrical utility line with a capacity greater than or equal to 100kV or a natural gas, hydrogen, or water pipeline greater than or equal to 24” in diameter.

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

Utility-scale and/or commercial energy development – A project that is capable of producing 20 or more megawatts of electricity for distribution to customers through the electricity-transmission- grid system.

Vegetation treatments – Management practices that are designed to maintain current vegetation structure or change the vegetation structure to a different stage of development. Vegetation treatment methods may include managed fire, prescribed fire, chemical, mechanical, and seeding.

Waived without preference – A permittee waives a term grazing permit to the United States without identifying a preferred applicant (i.e., a third party that has purchased either permitted livestock, base property, or both).

Waiver (oil and gas) – Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

West Nile virus – A virus that is found in temperate and tropical regions of the world and most commonly

transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds, including the greater sage-grouse.

Wildfire suppression – An appropriate management response to wildfire or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

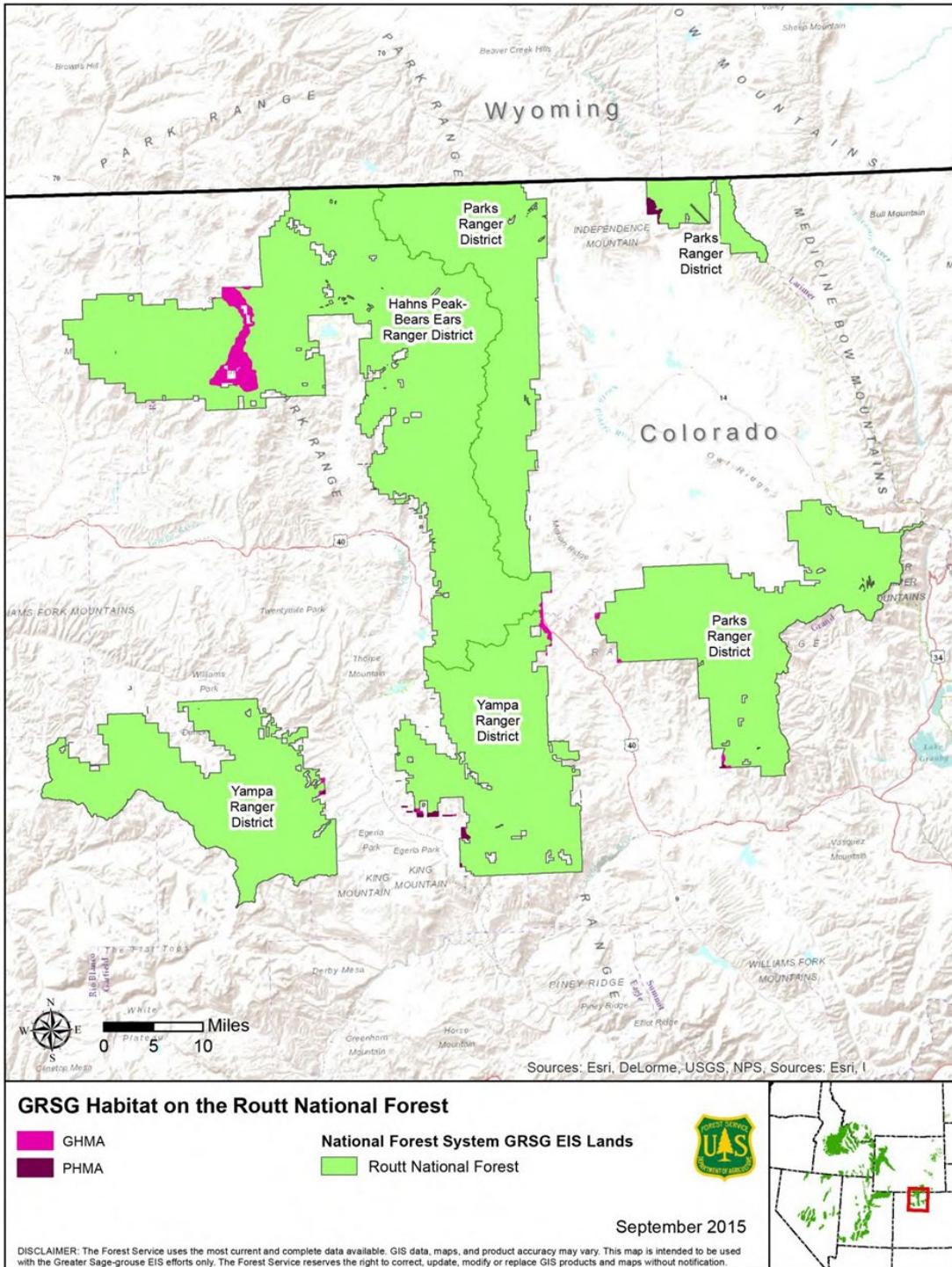
Winter Concentration Areas – Areas that are a habitat feature exclusively designated by the State of Wyoming and mapped by the Wyoming Game and Fish Department (WGFD). Winter Concentration Areas are designated and mapped areas where biologically significant numbers of core habitat birds persistently congregate in an area outside of PHMA between December 1 to March 14. No Winter Concentration Areas are currently mapped on NFS lands in Wyoming. If Winter Concentration Areas are designated by the State of Wyoming and mapped by WGFD, the appropriate plan components would be applied. Winter Concentration Areas are only in Wyoming.

Withdrawal (land) – Withholding an area of federal land from settlement, sale, location, or entry under some or all of the general land laws, including the mining and mineral leasing laws, for the purpose of limiting activities under those laws to maintain other public values in the area or for reserving the area for a particular public purpose or program.

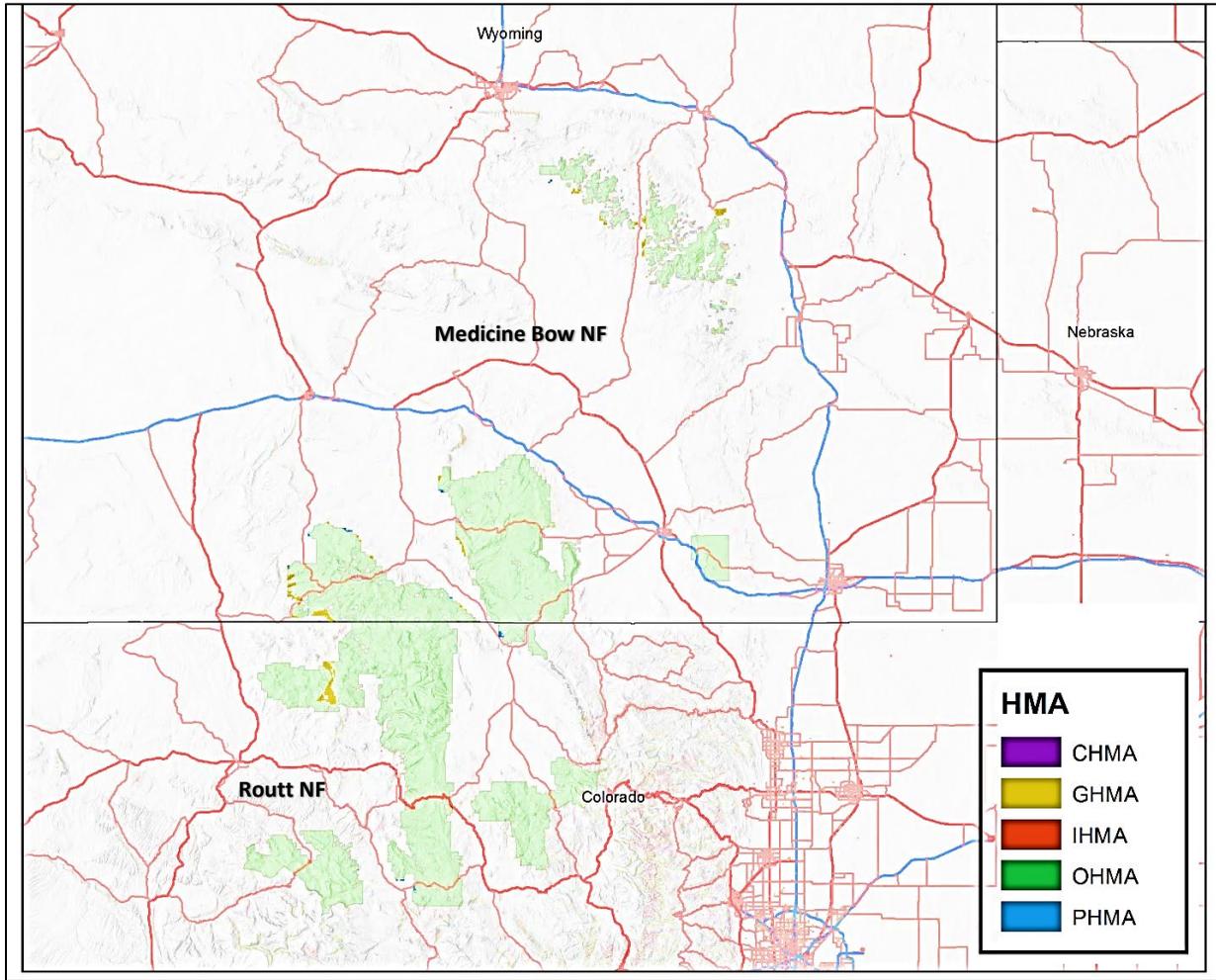
APPENDIX A - MAPS

Colorado Maps

Map A-1. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Routt National Forest, Colorado.

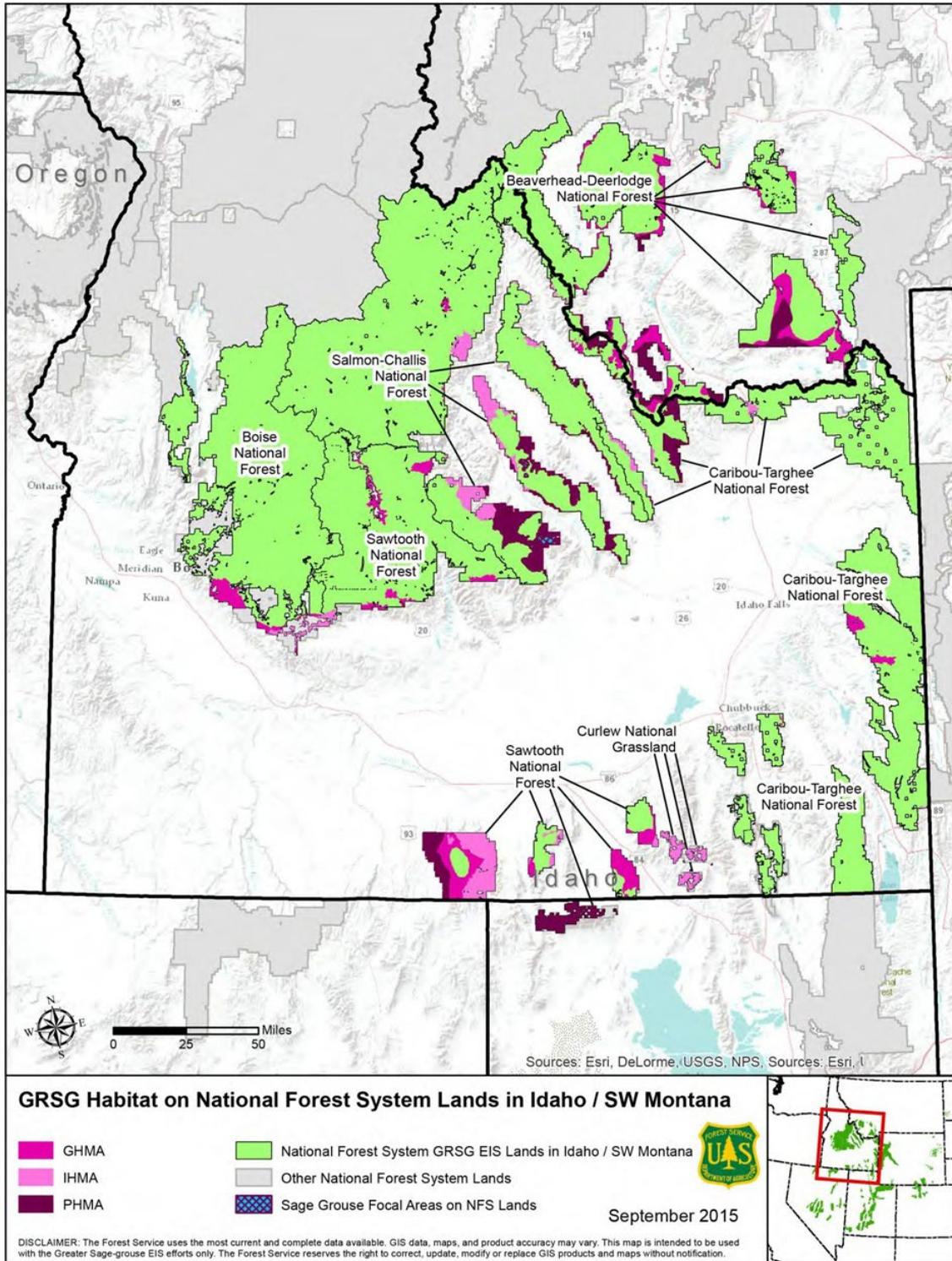


Map A-2. Alternative 2 – Proposed Action Alternative. GRSG Habitat Management Areas on the Medicine Bow-Routt National Forest, Colorado.

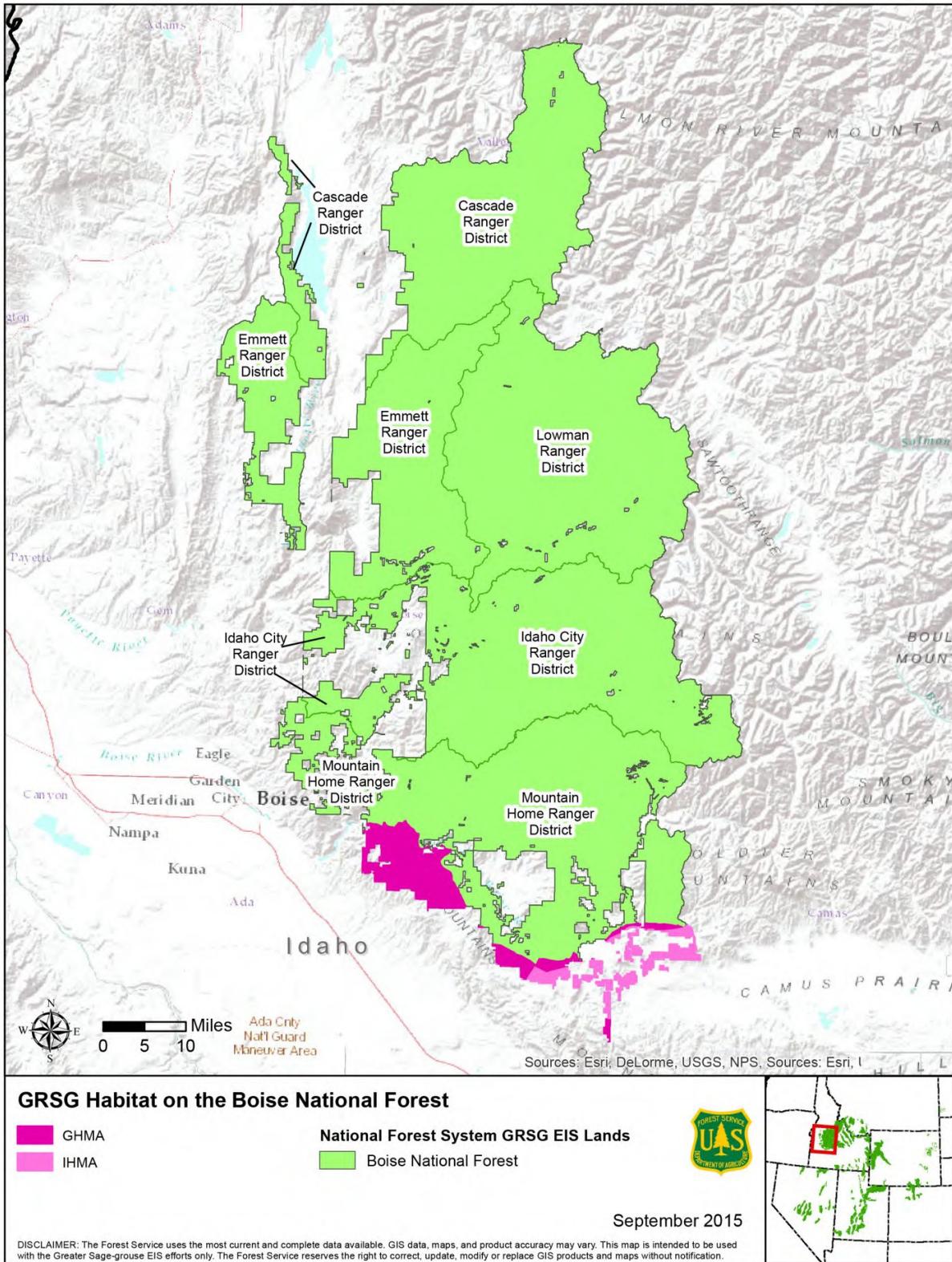


Idaho Maps

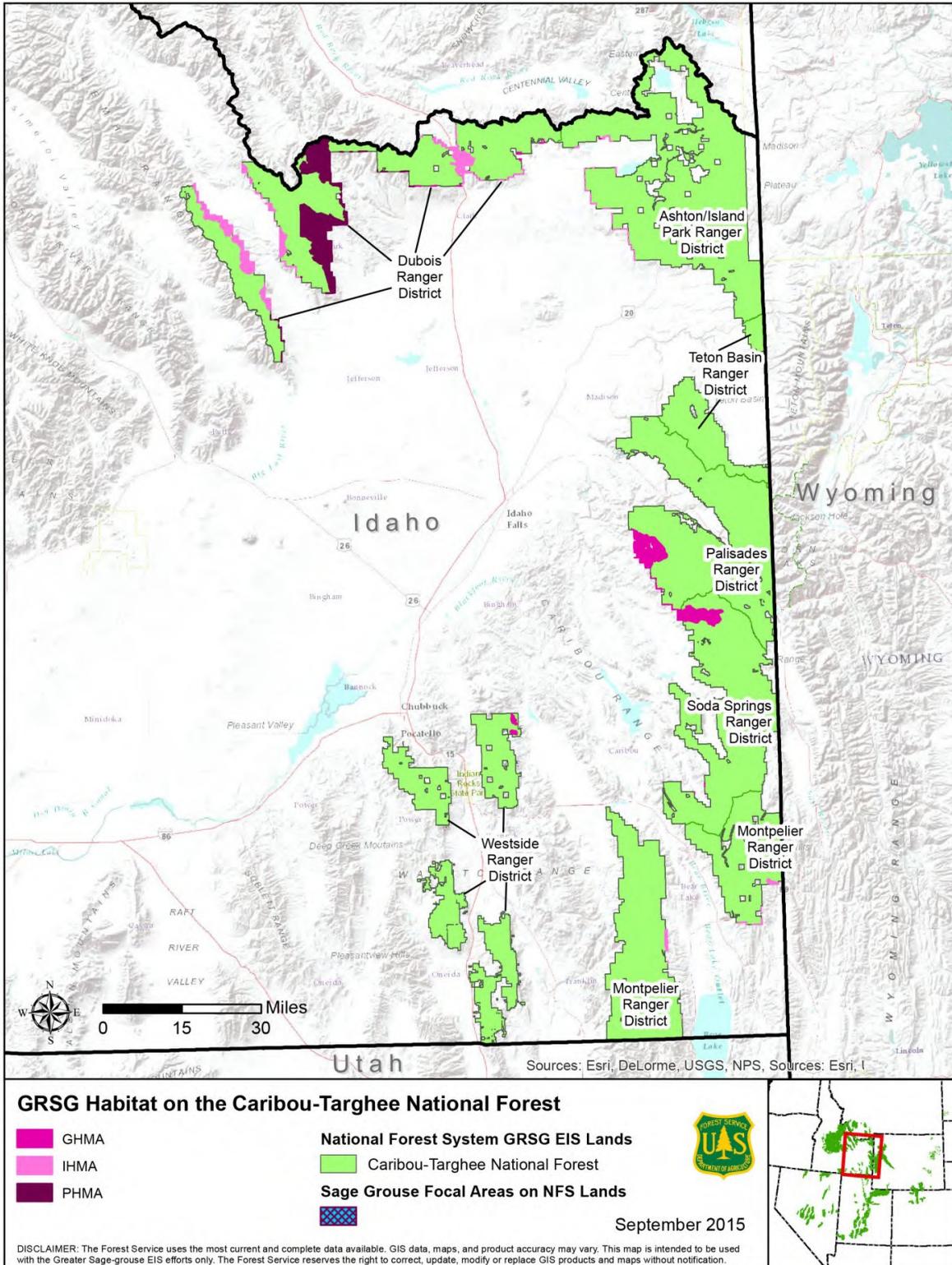
Map A-3. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas in Idaho/SW Montana.



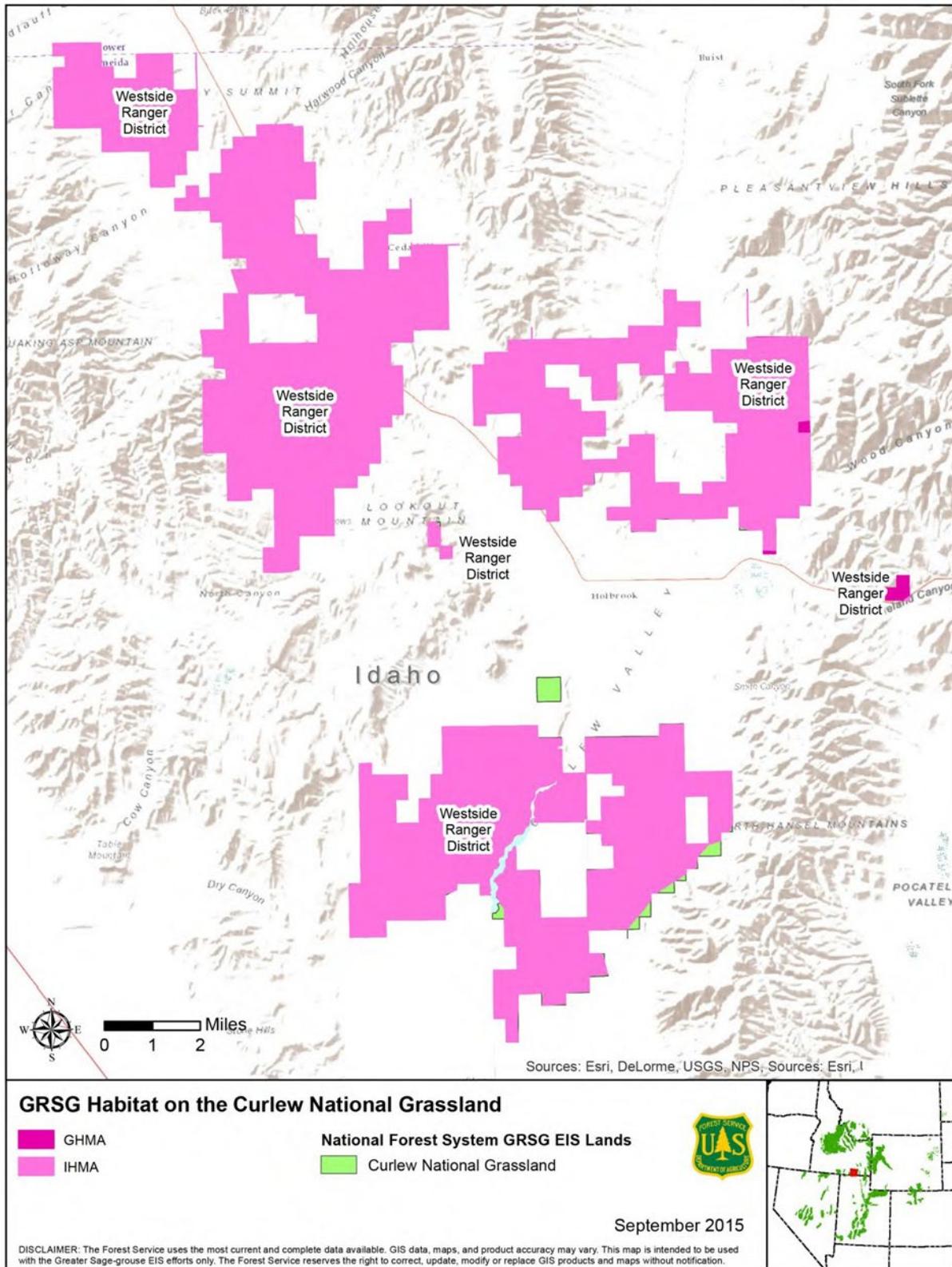
Map A-4. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Boise NF.



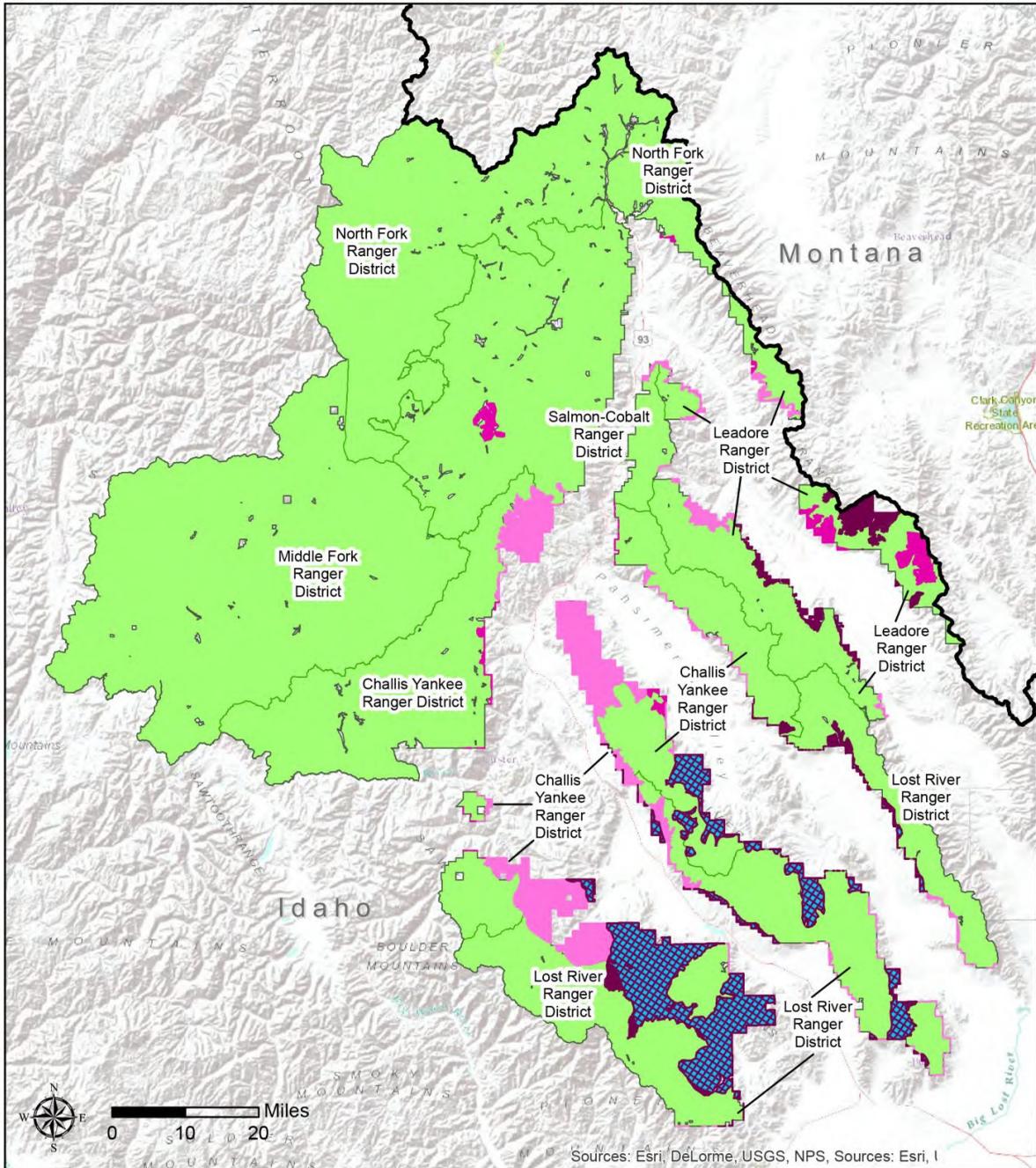
Map A-5. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Caribou-Targhee National Forest.



Map A-6. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Curlew National Grassland.



Map A-7. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Salmon-Challis National Forest.



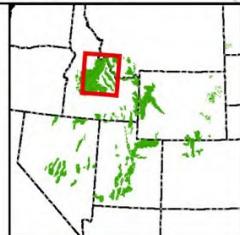
GRSG Habitat on the Salmon-Challis National Forest

- GHMA
- IHMA
- PHMA

National Forest System GRSG EIS Lands

Salmon-Challis National Forest

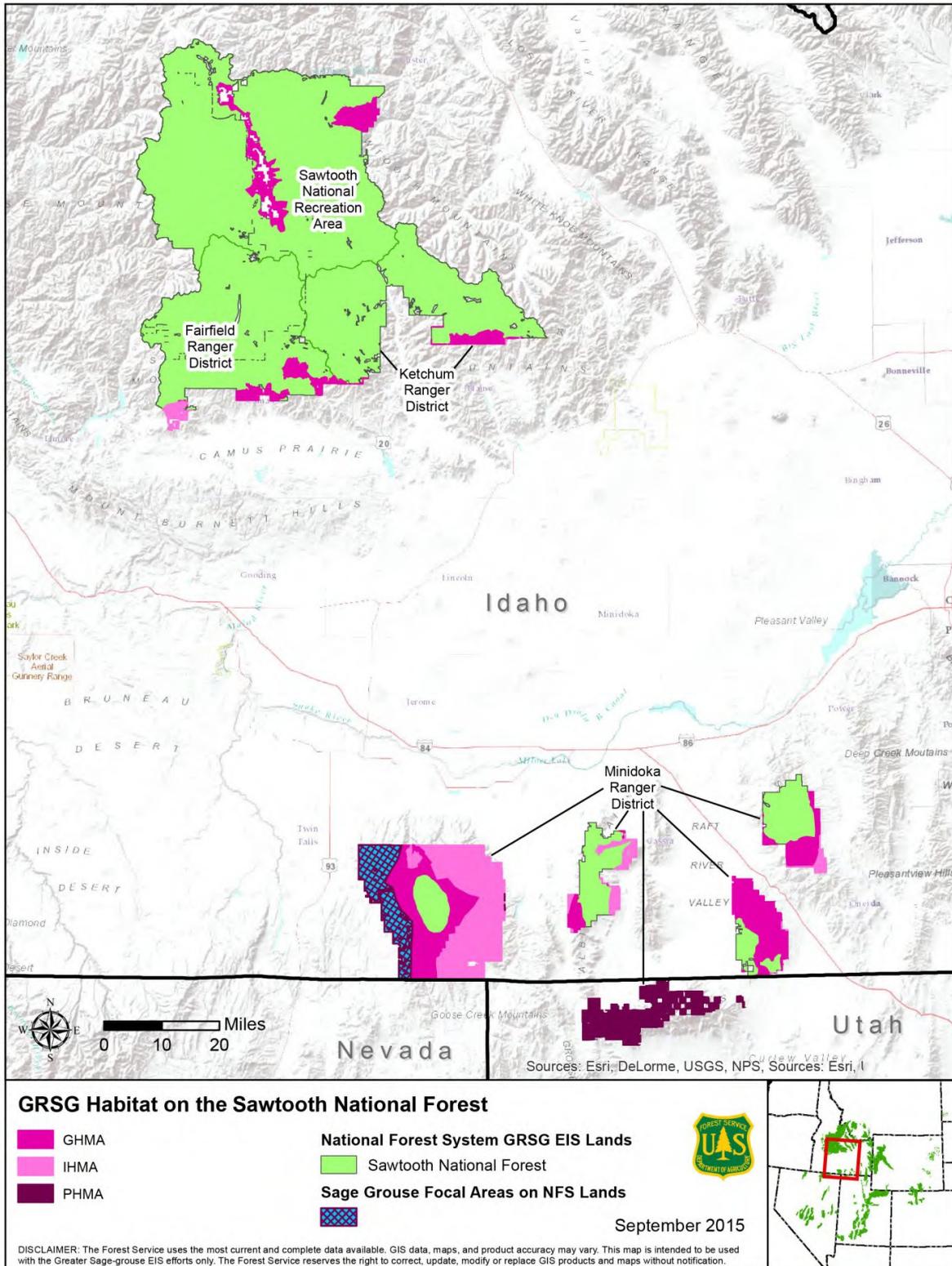
Sage Grouse Focal Areas on NFS Lands



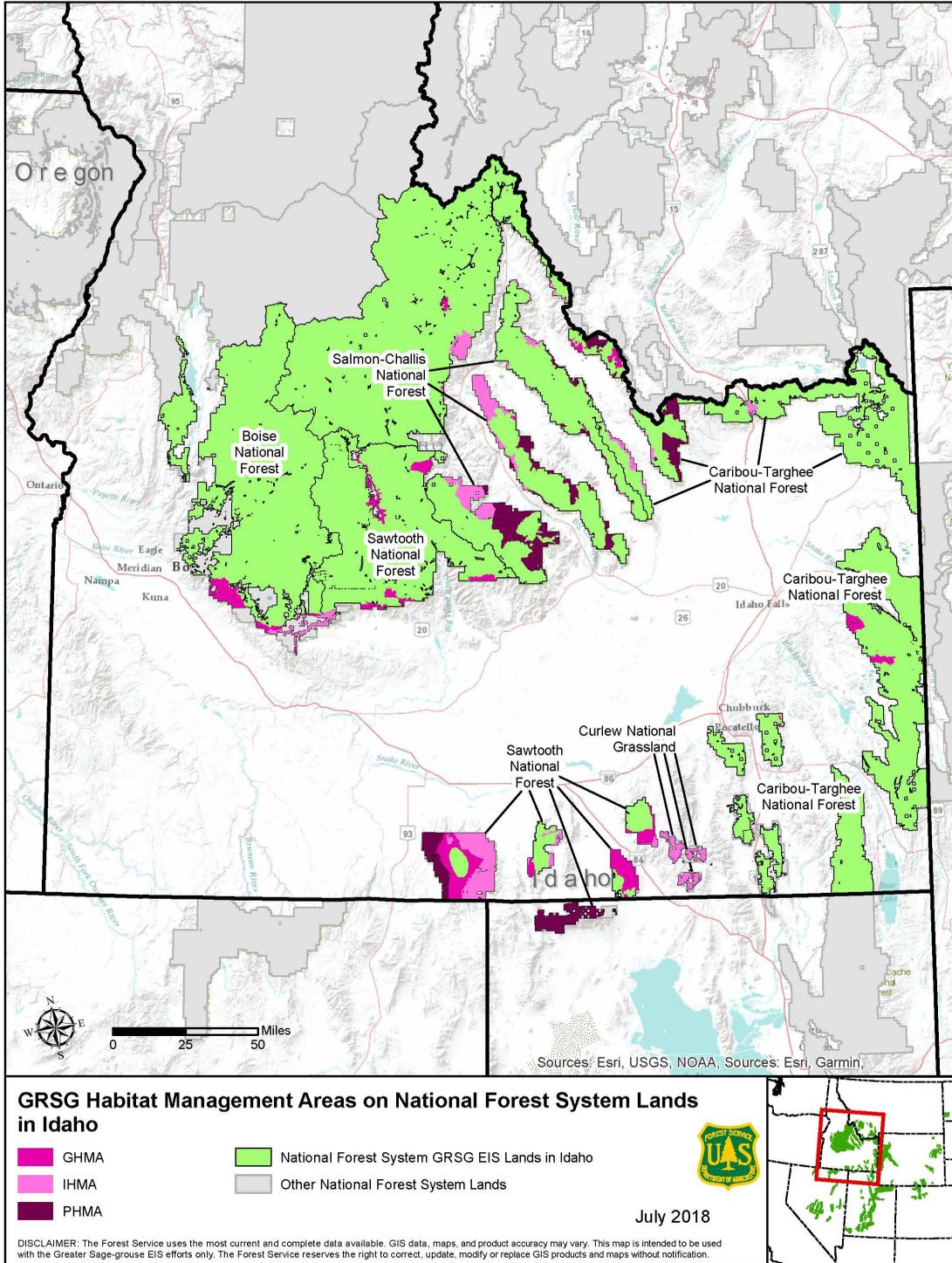
September 2015

DISCLAIMER: The Forest Service uses the most current and complete data available. GIS data, maps, and product accuracy may vary. This map is intended to be used with the Greater Sage-grouse EIS efforts only. The Forest Service reserves the right to correct, update, modify or replace GIS products and maps without notification.

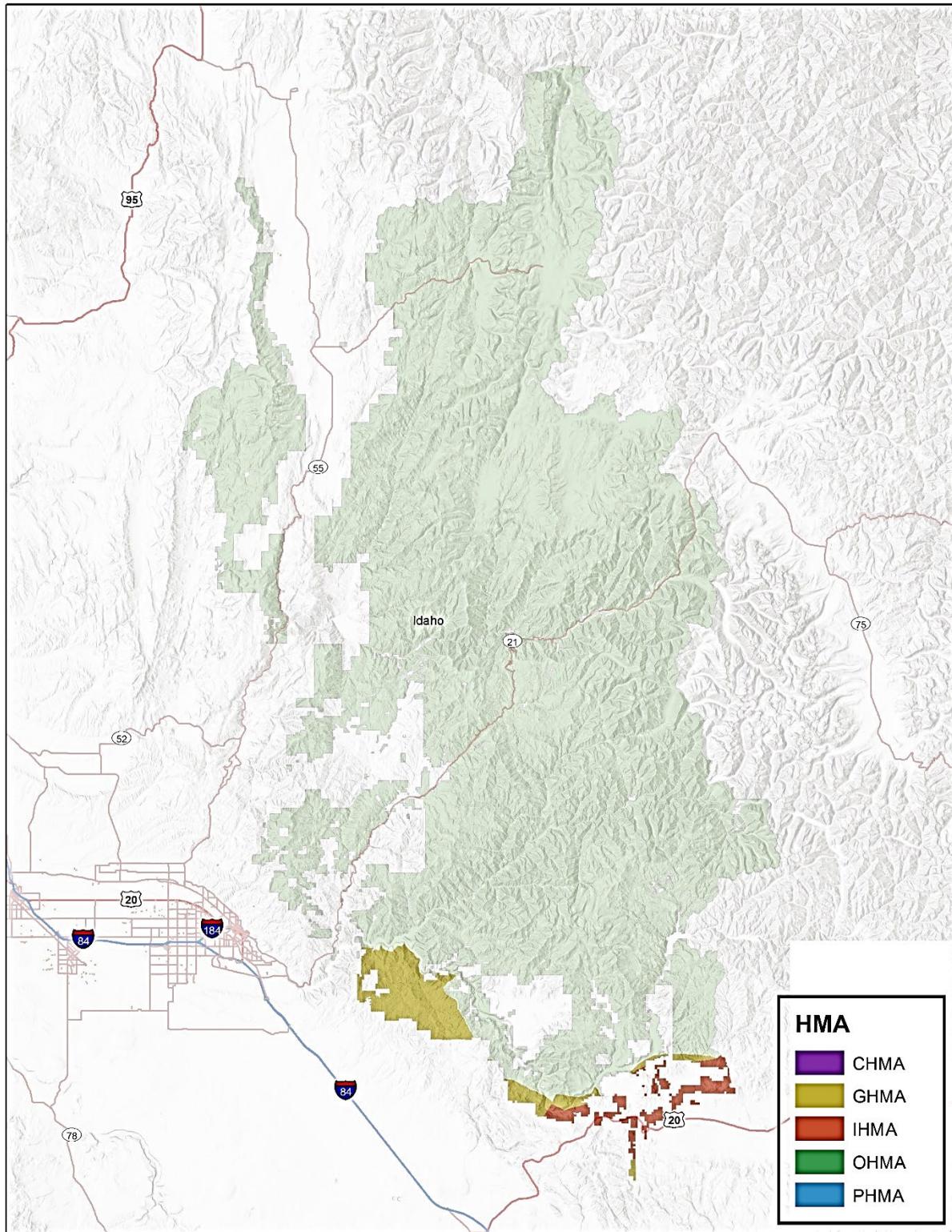
Map A-8. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Sawtooth National Forest.



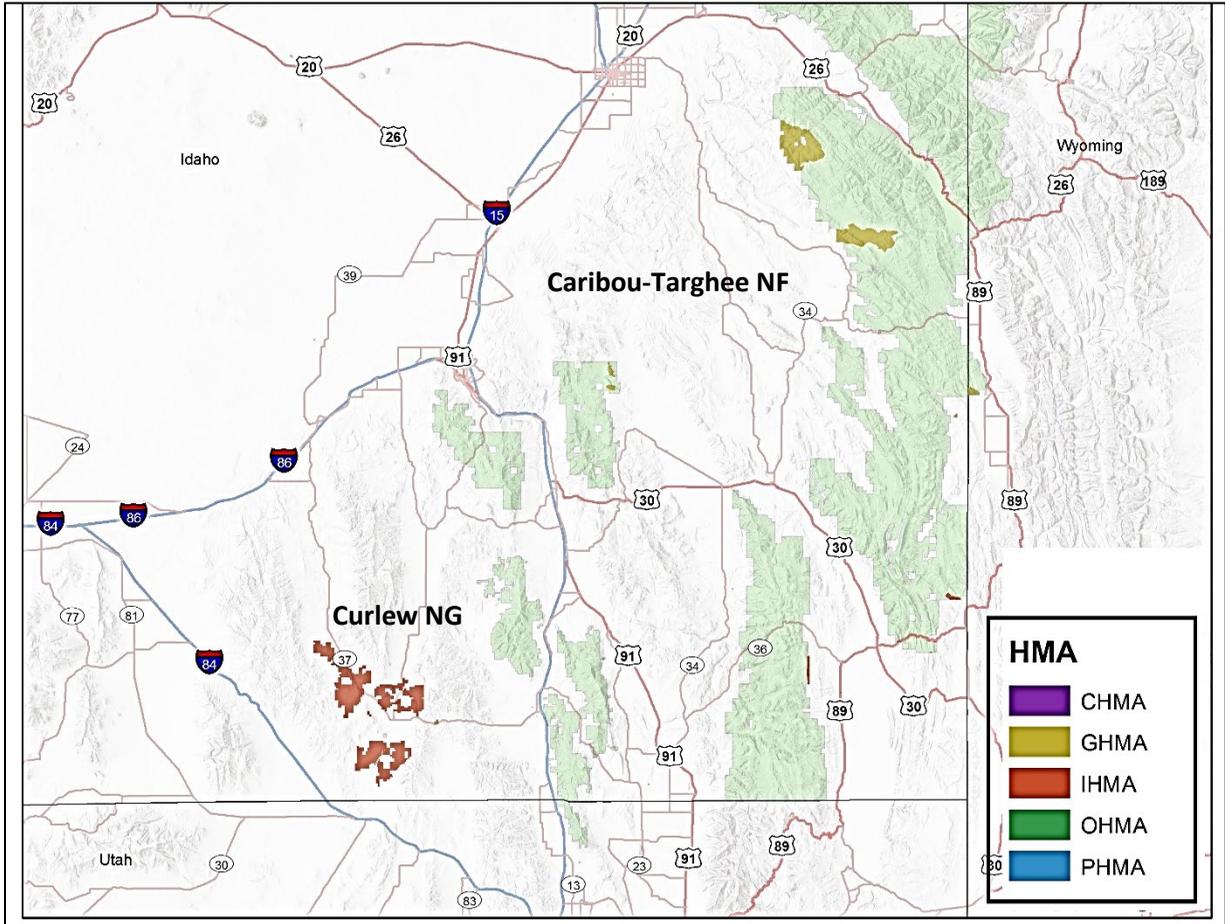
Map A-9. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas in Idaho.



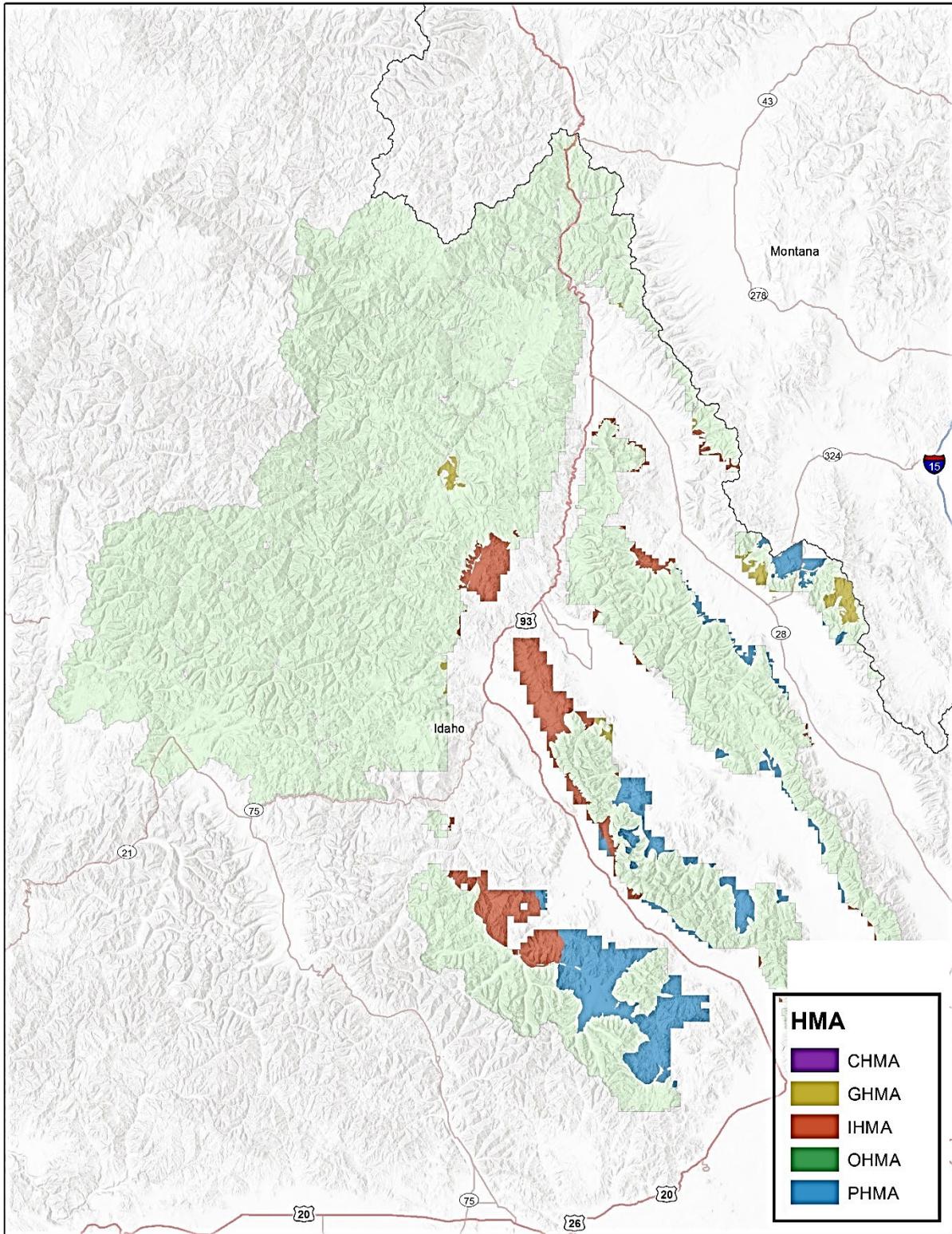
Map A-10. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Boise NF.



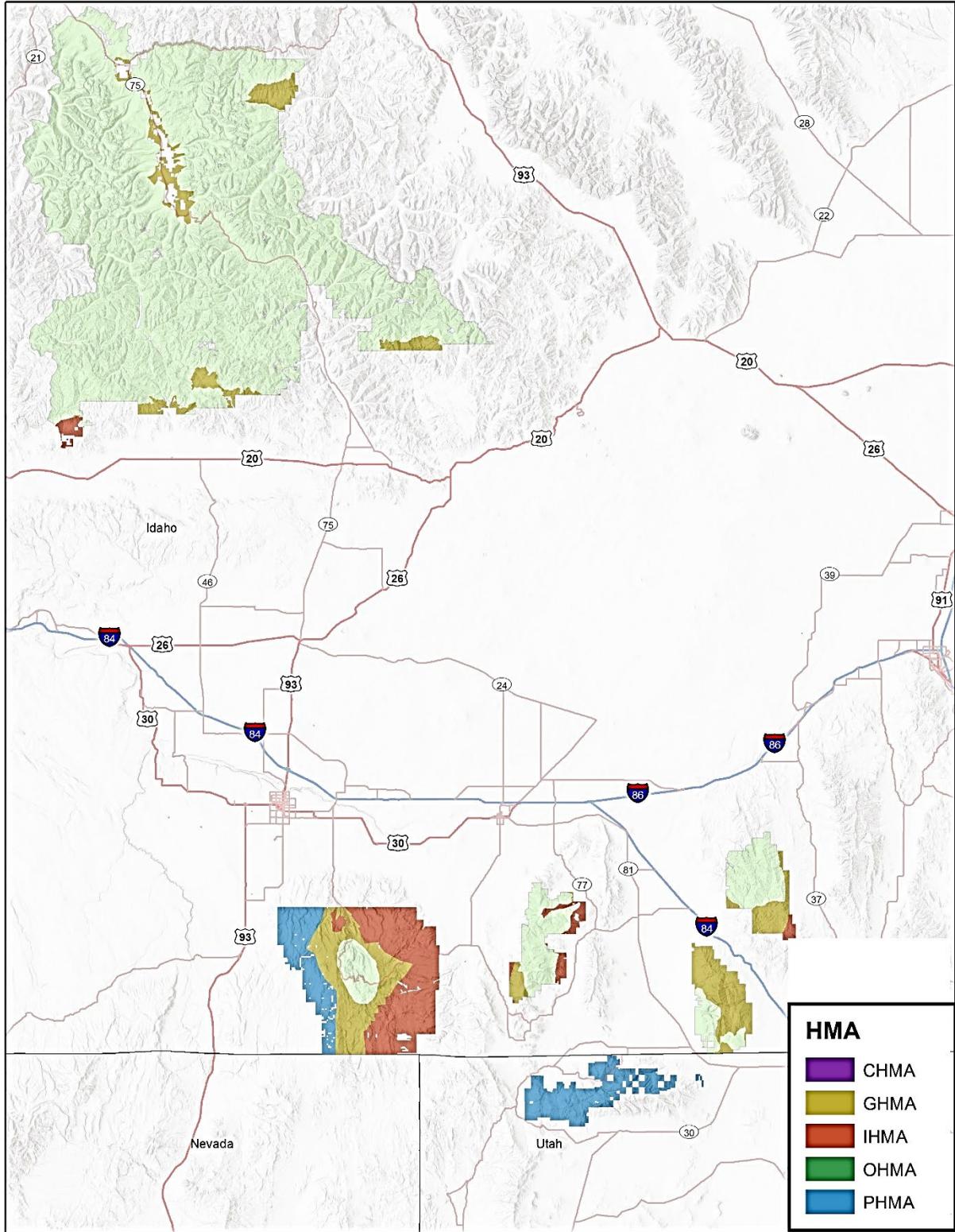
Map A-12. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Curlew National Grassland.



Map A-13. Alternative 2 - Proposed Action. GRSG Habitat Management Areas on the Salmon-Challis National Forest.

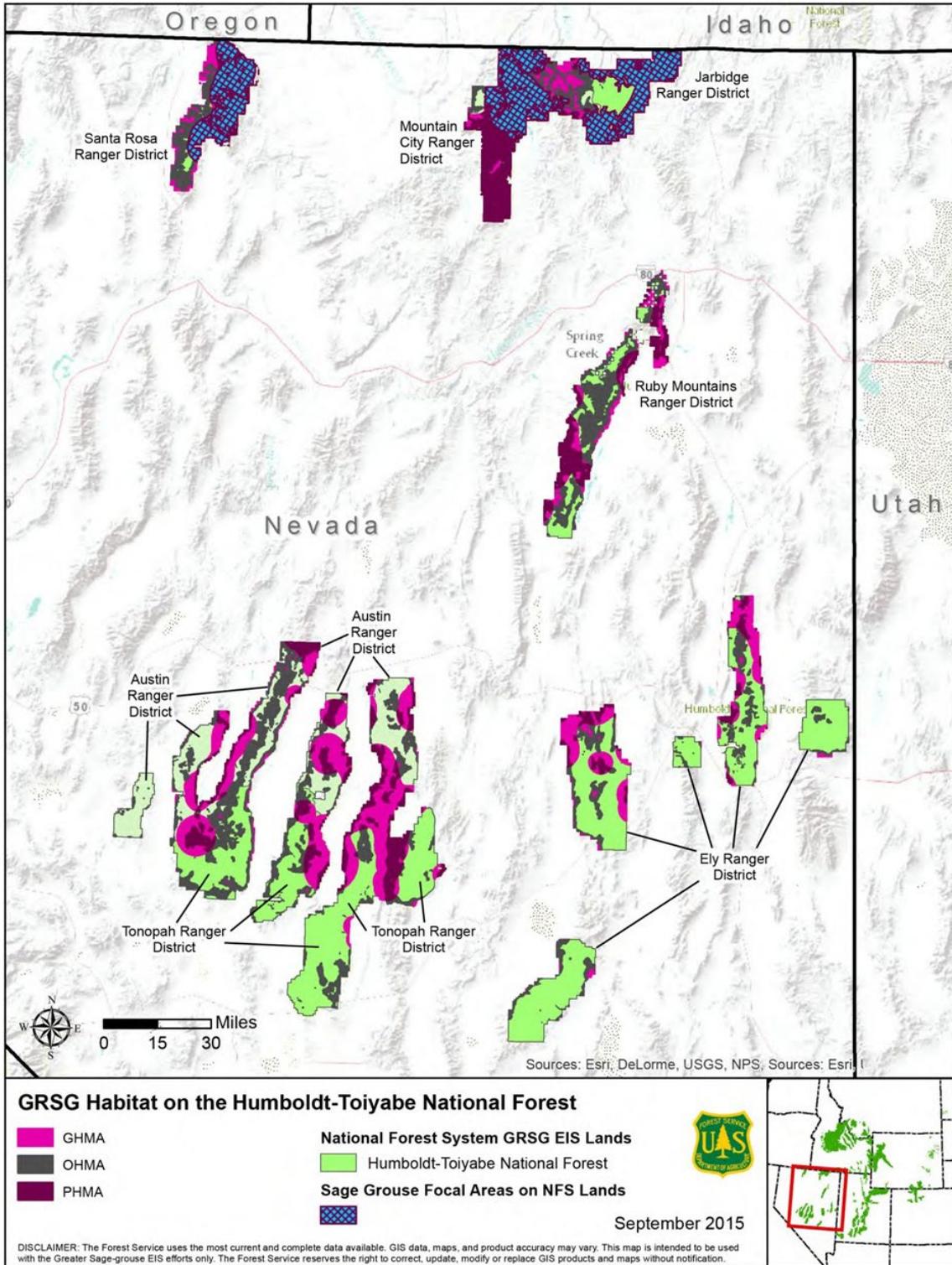


Map A-14. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Sawtooth National Forest.

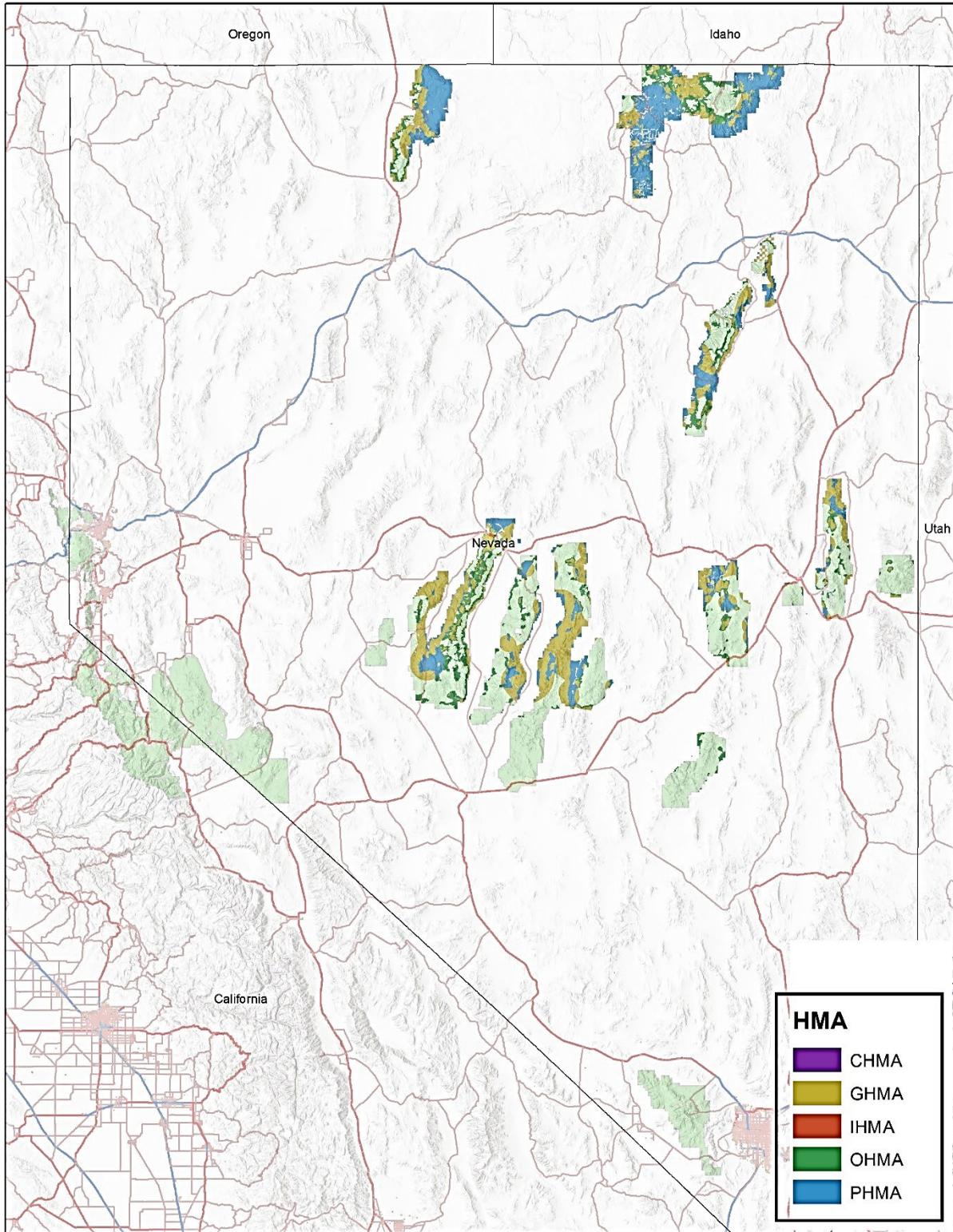


Nevada Maps

Map A-15. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Humboldt-Toiyabe National Forest, Nevada.

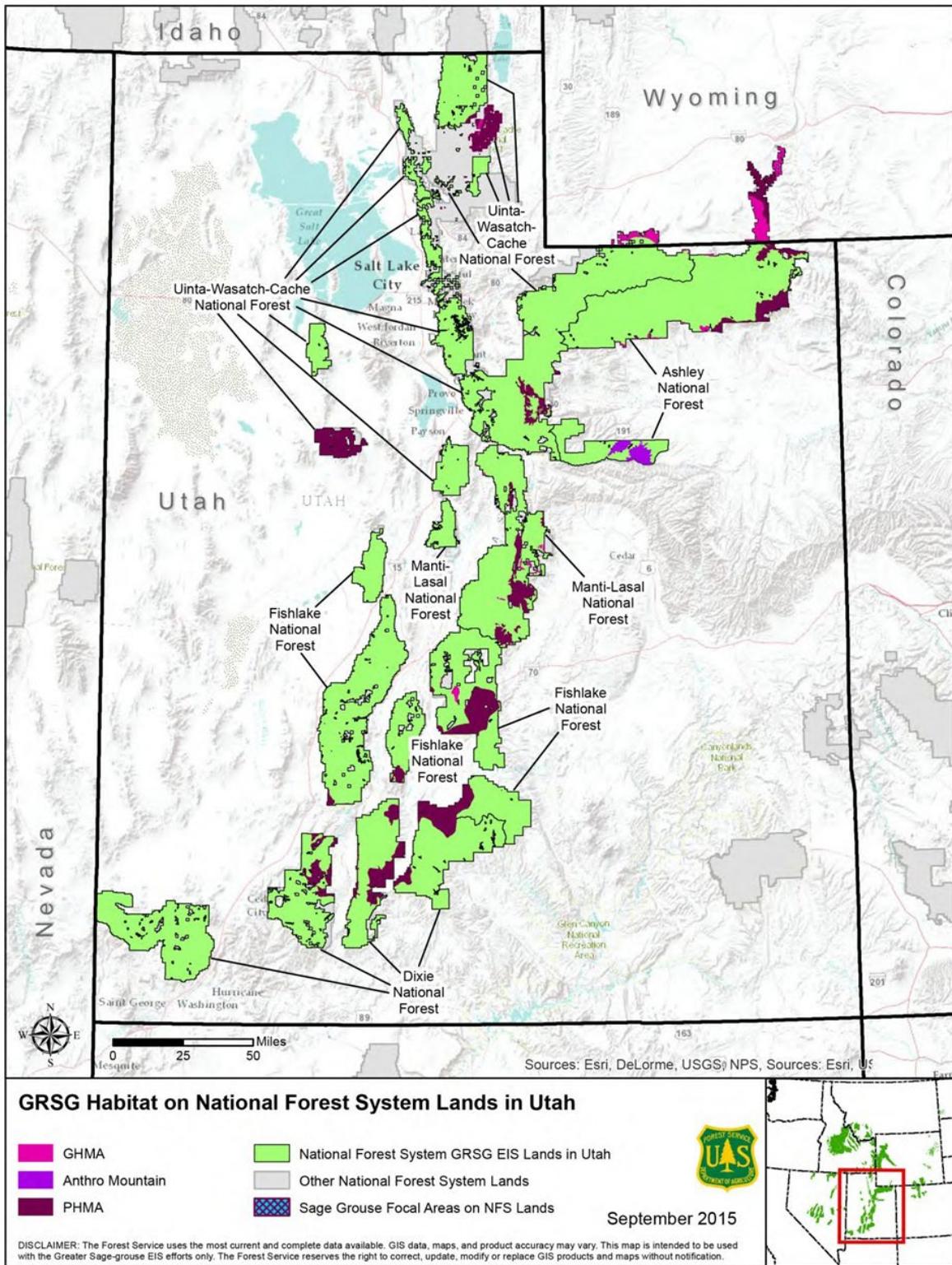


Map A-16. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Humboldt-Toiyabe National Forest, Nevada.

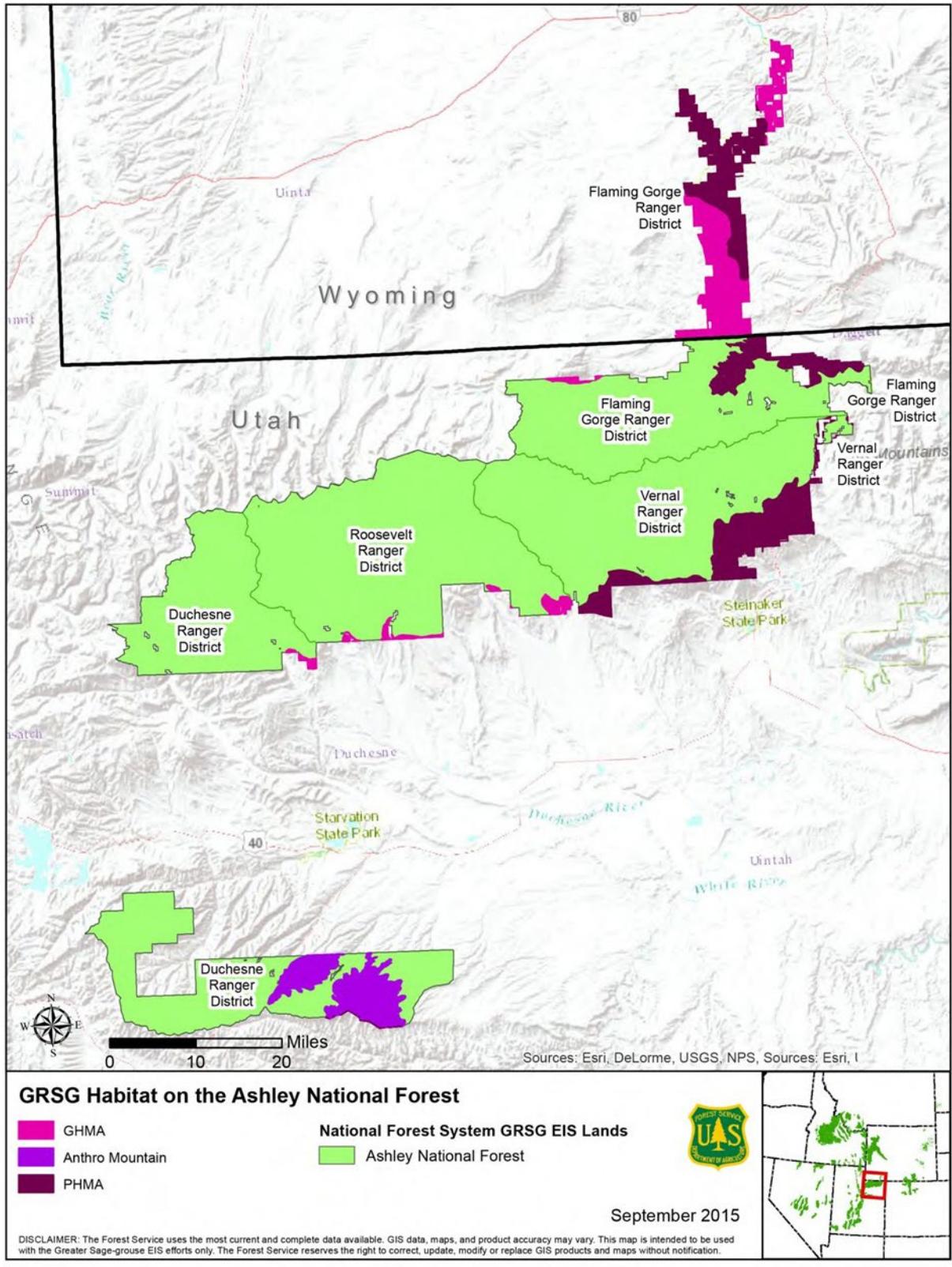


Utah Maps

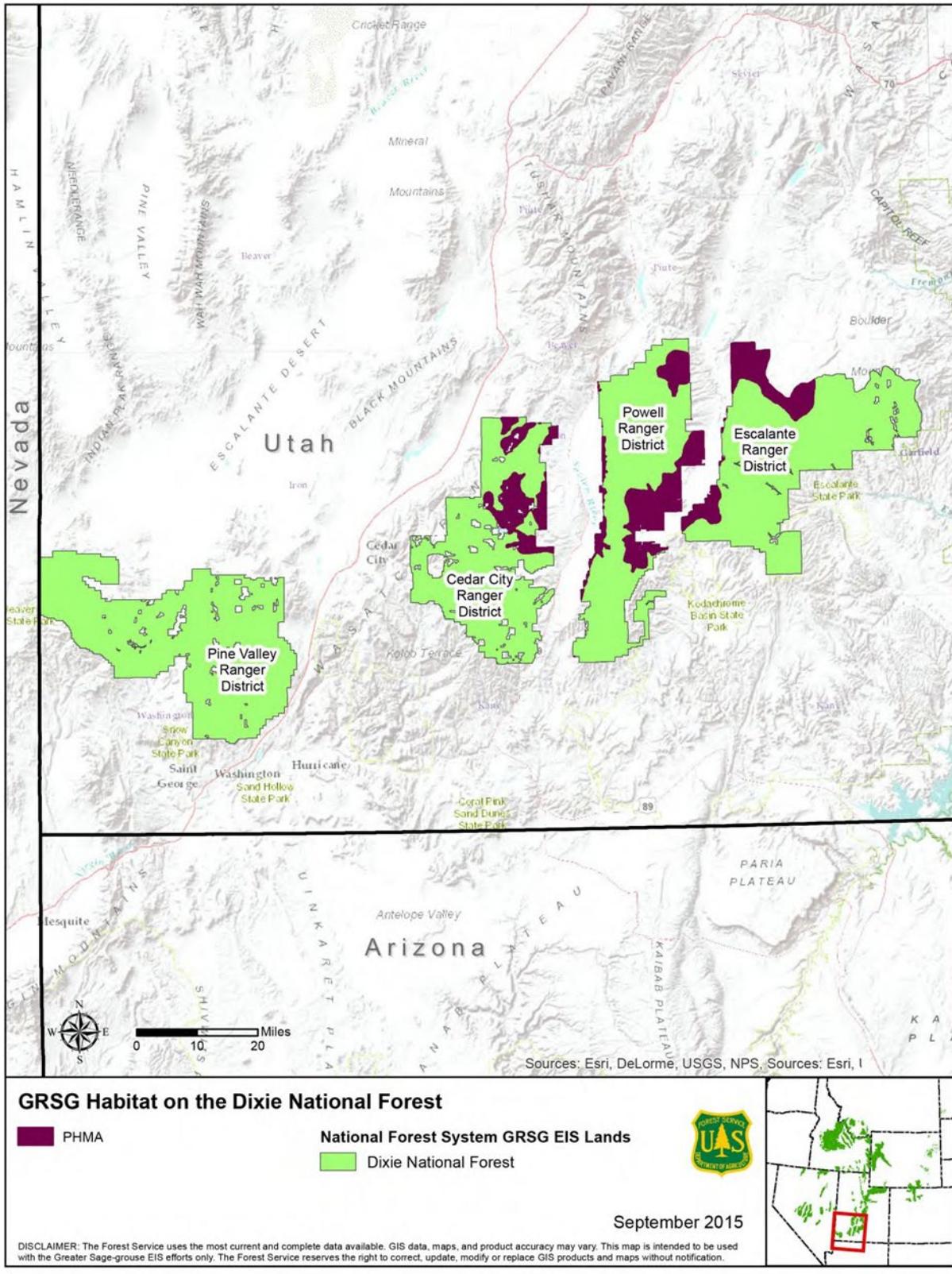
Map A-17. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas in Utah.



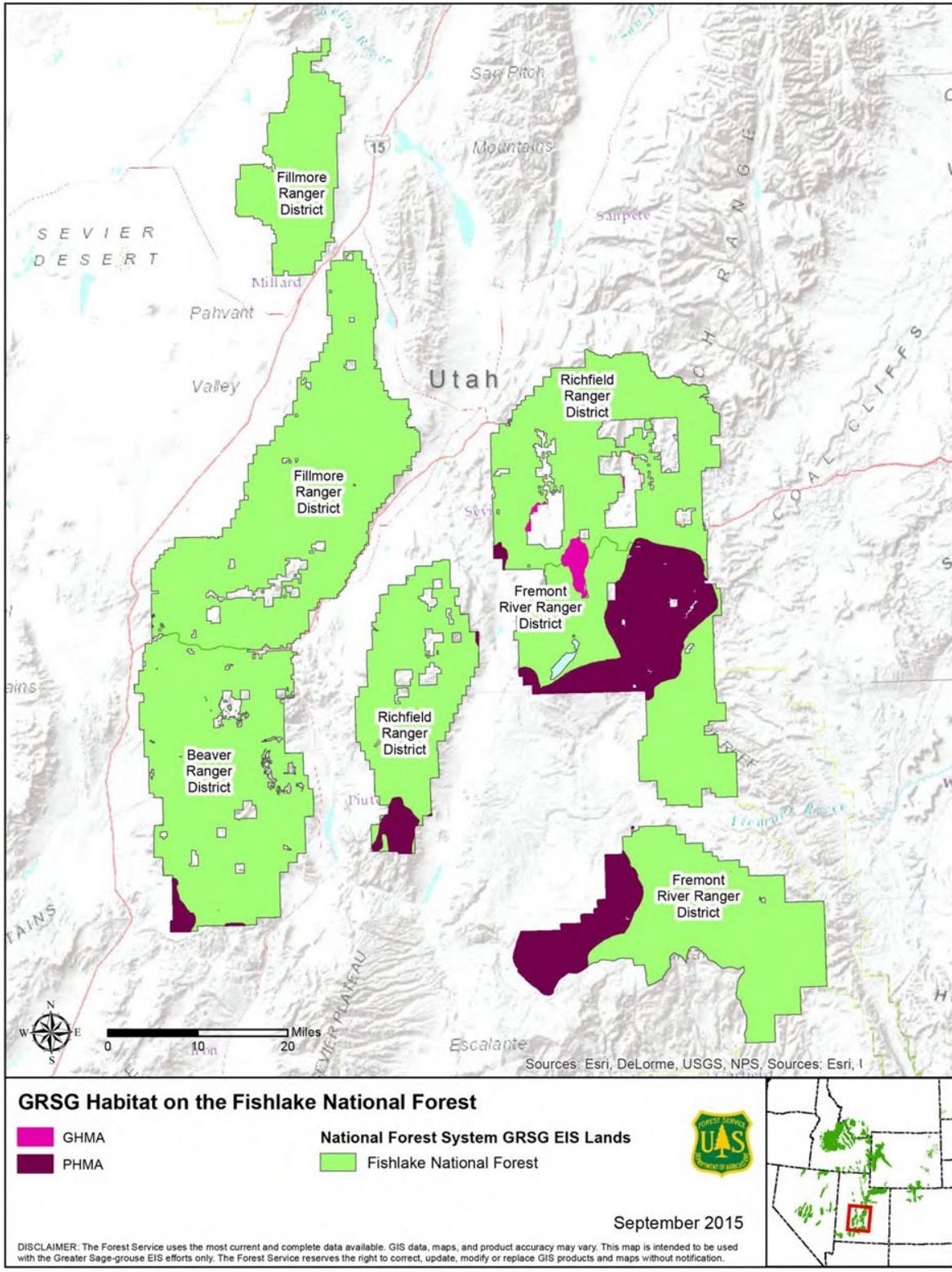
Map A-18. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Ashley NF.



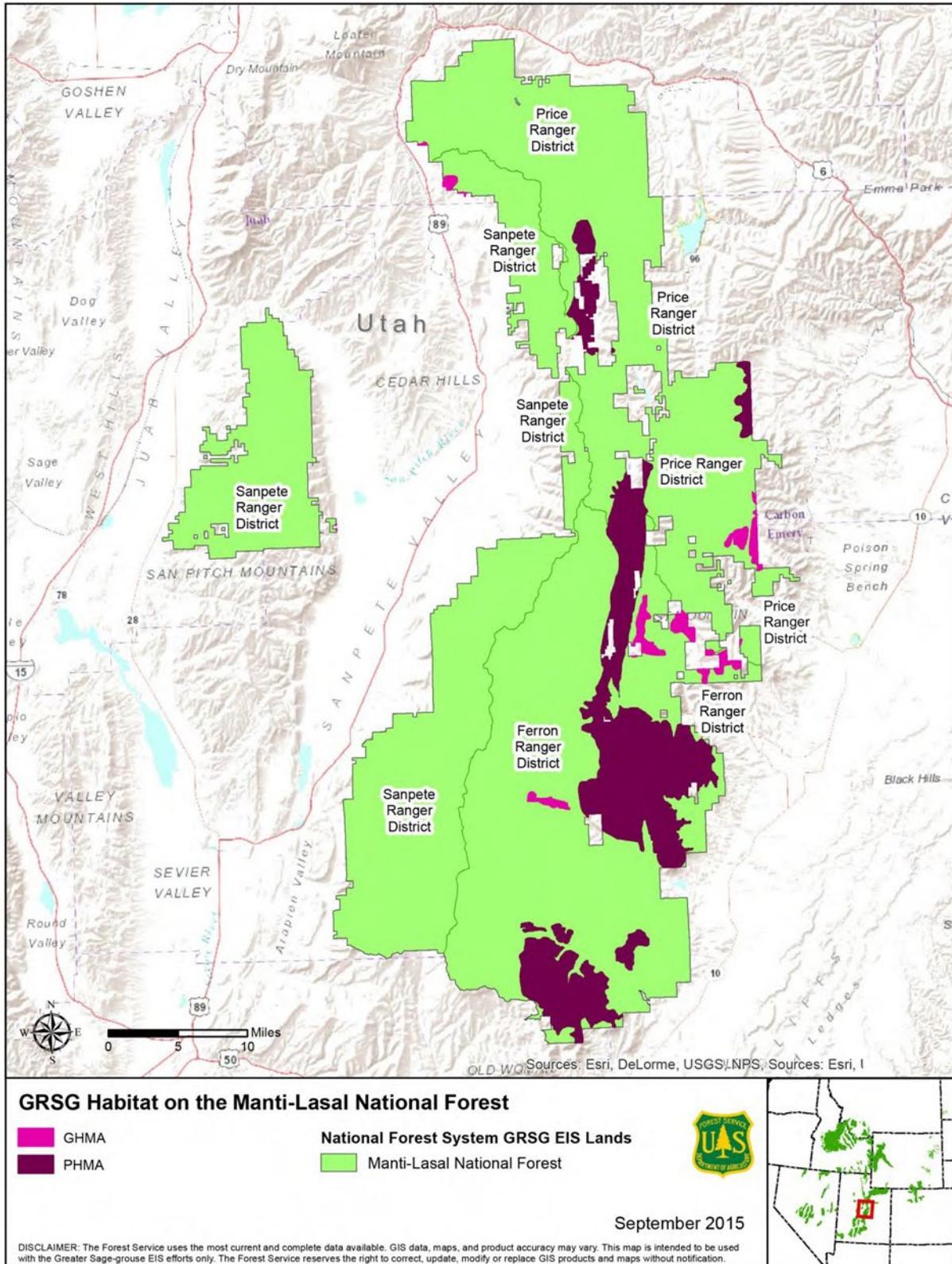
Map A-19. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Dixie NF.



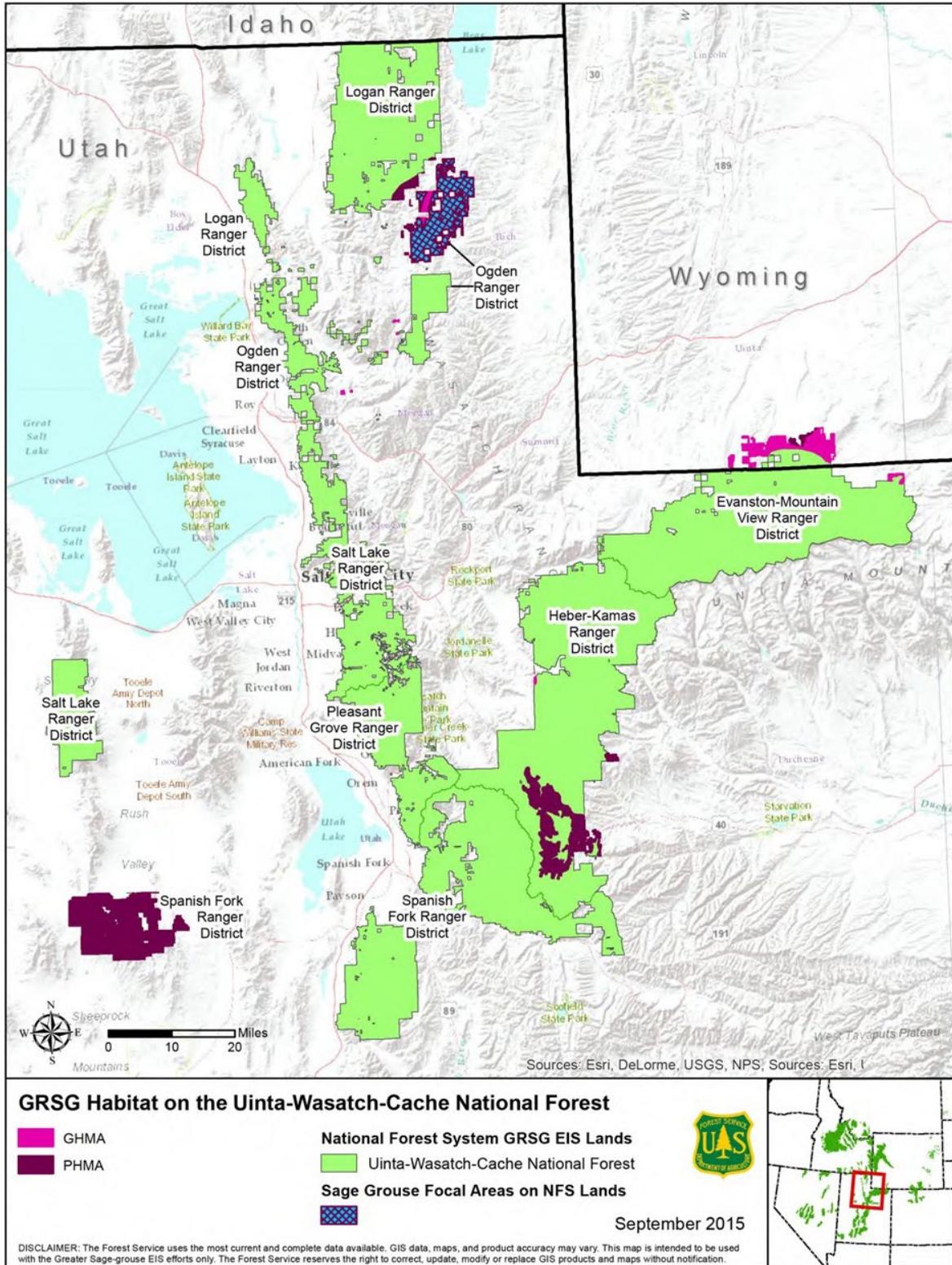
Map A-20. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Fishlake NF.



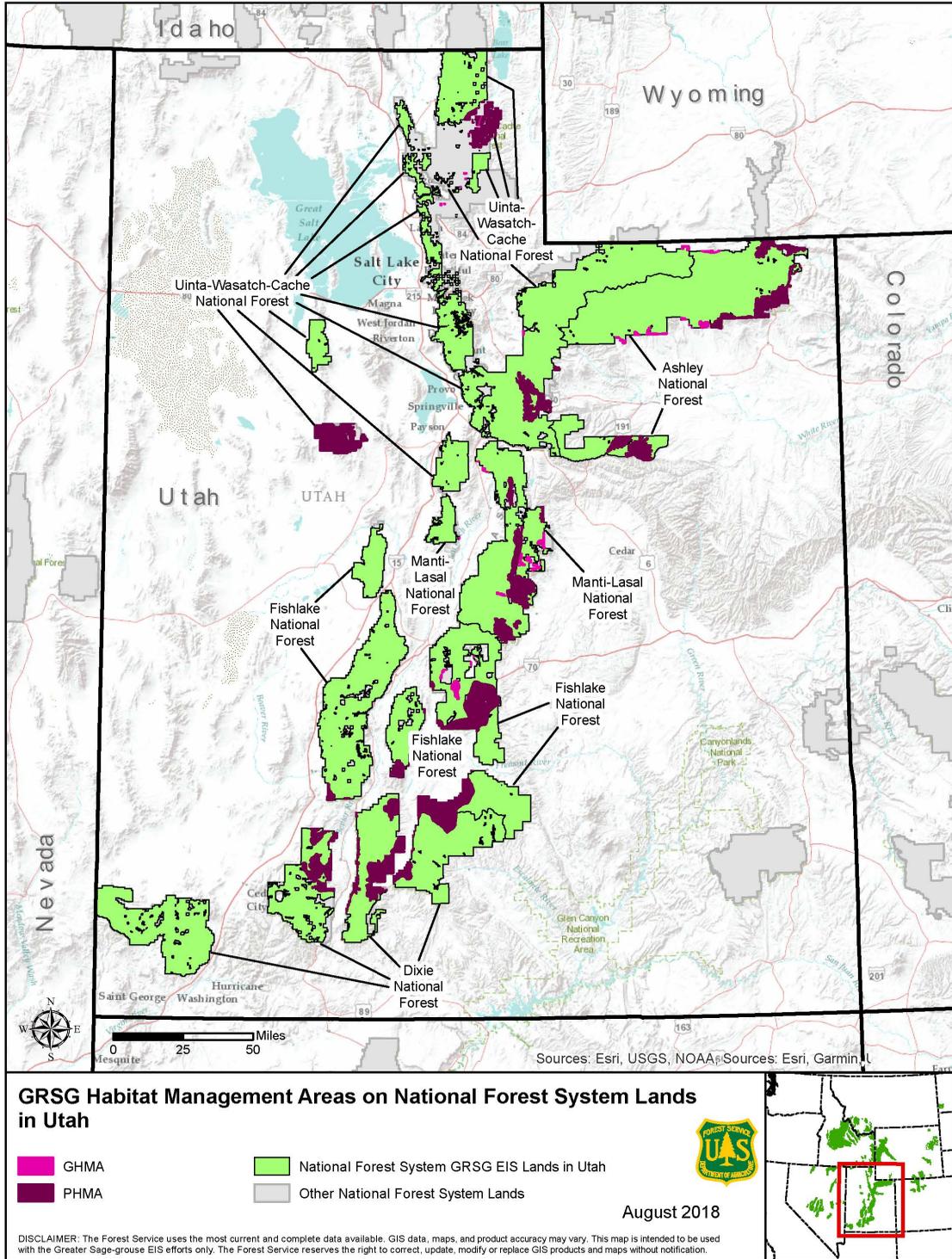
Map A-21. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Manti-La Sal NF.



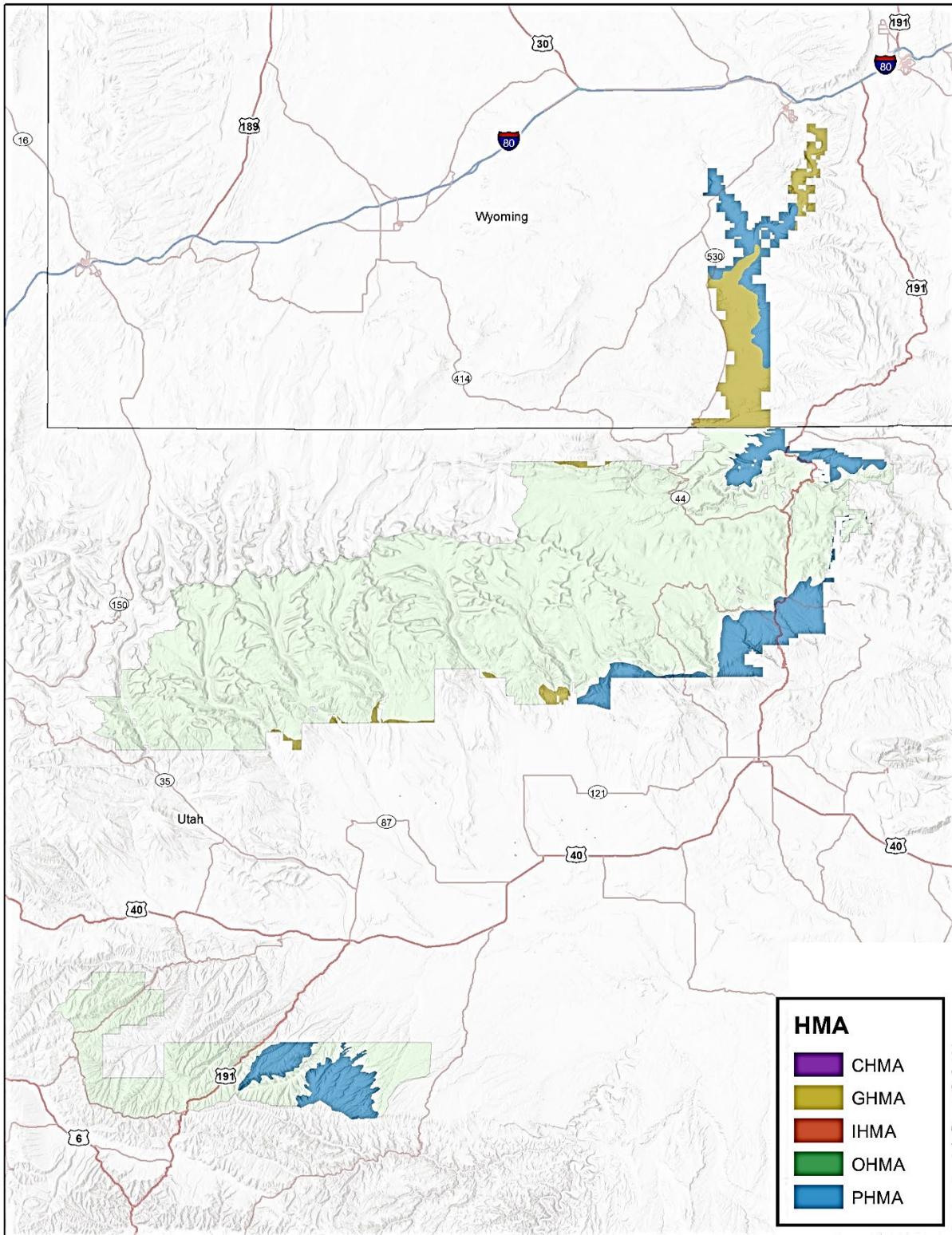
Map A-22. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Uinta-Wasatch-Cache NF.



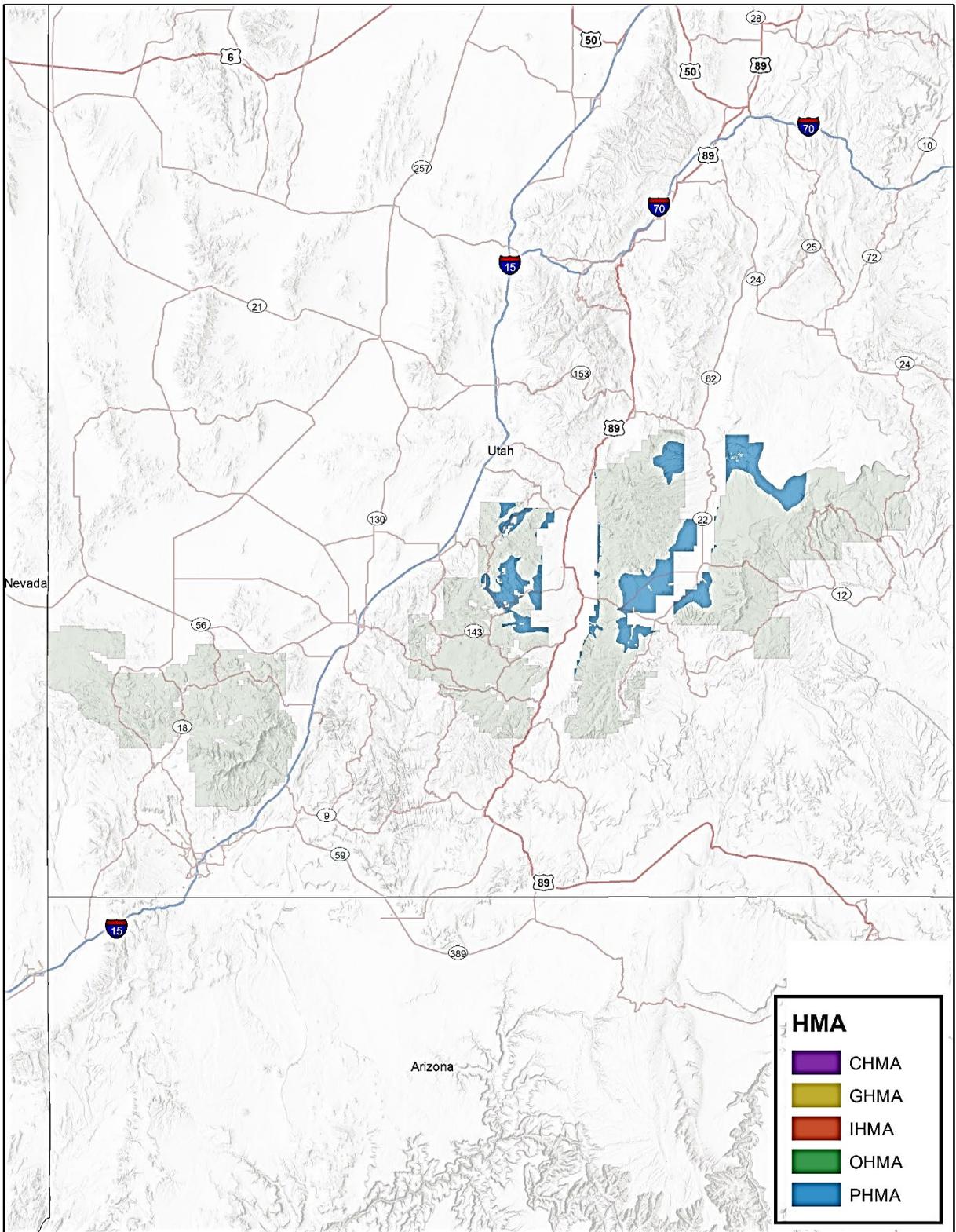
Map A-23. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas in Utah.



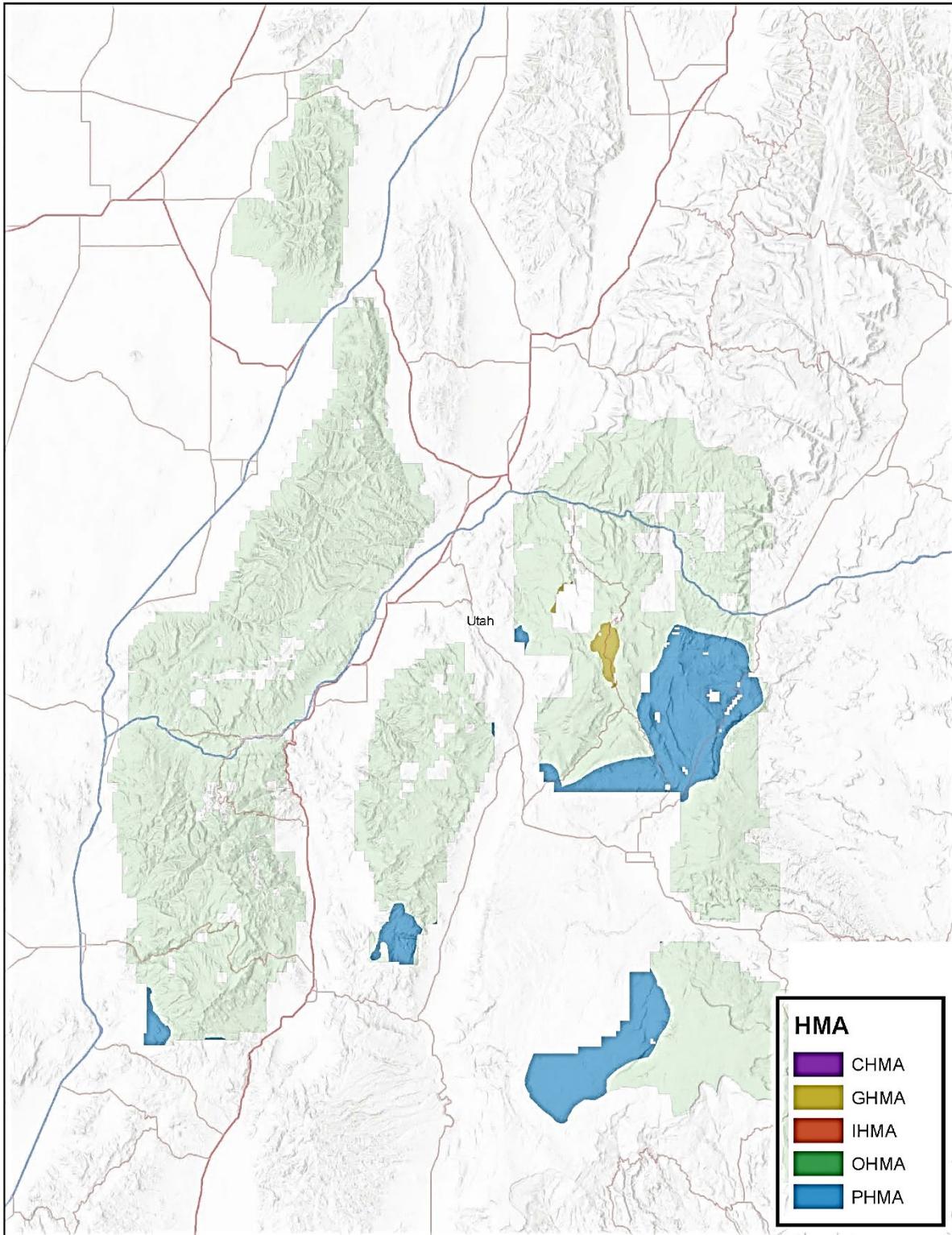
Map A-24. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Ashley NF.



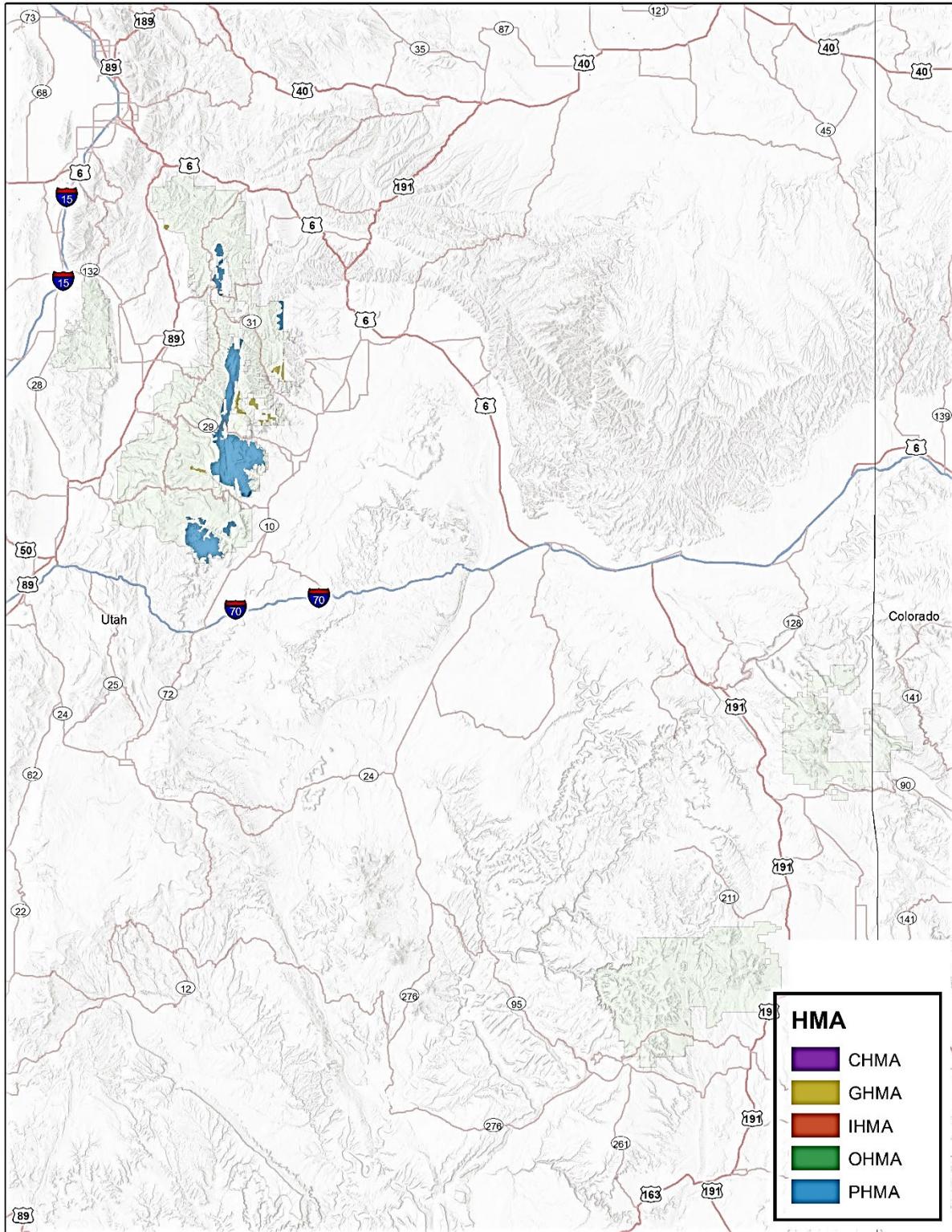
Map A-25. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Dixie NF.



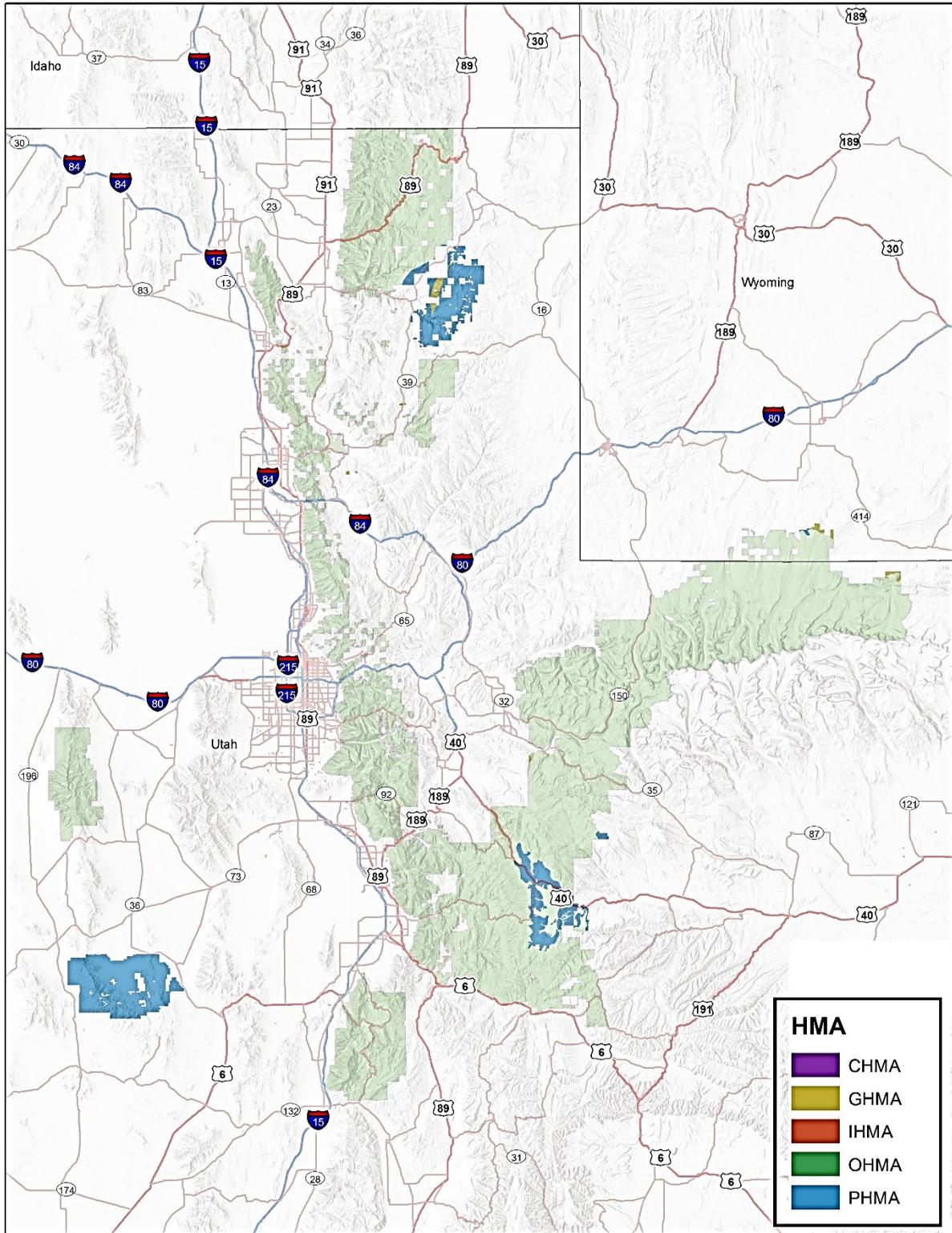
Map A-26. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Fishlake NF.



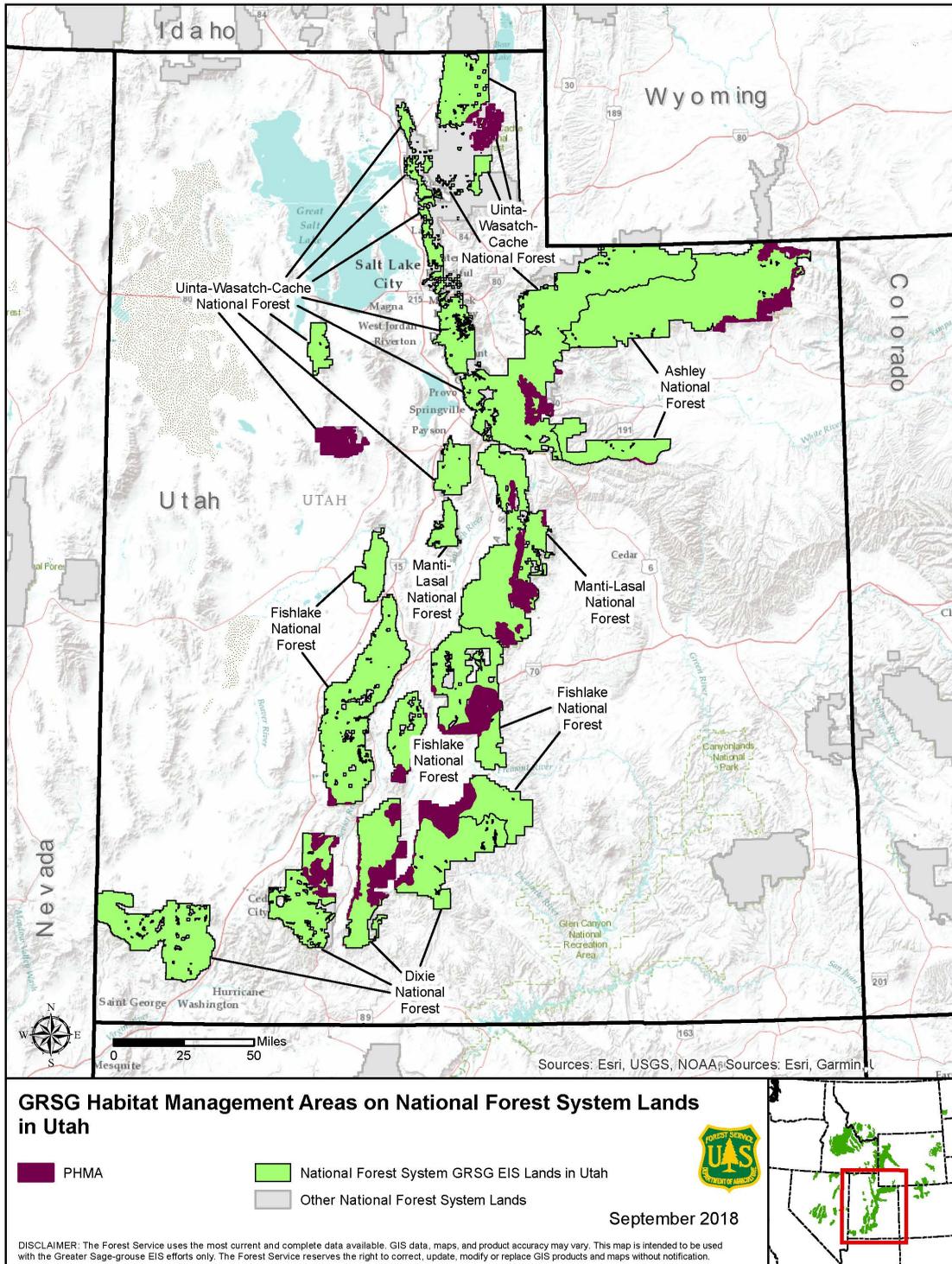
Map A-27. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Manti-La Sal NF.



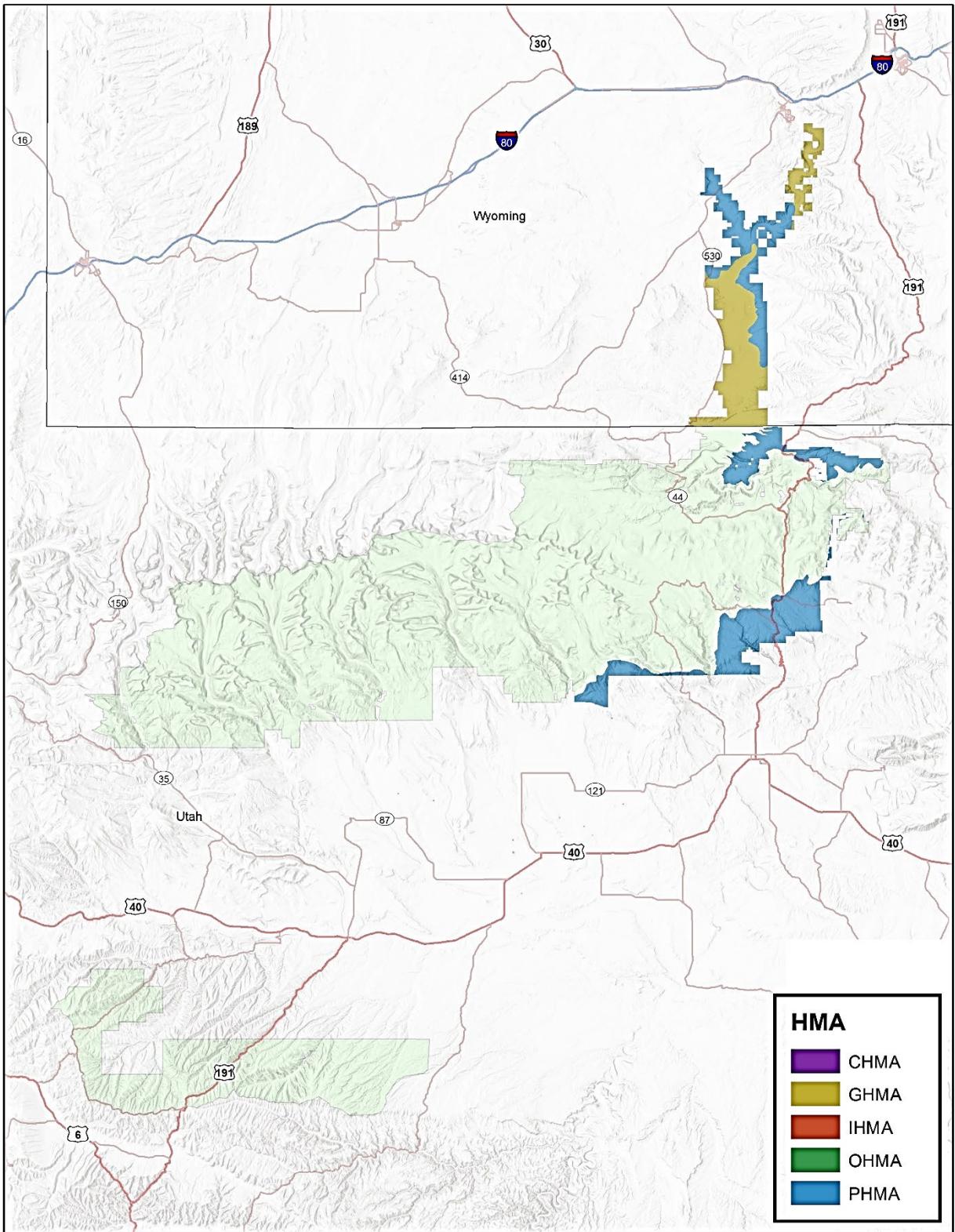
Map A-28. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Uinta-Wasatch-Cache NF.



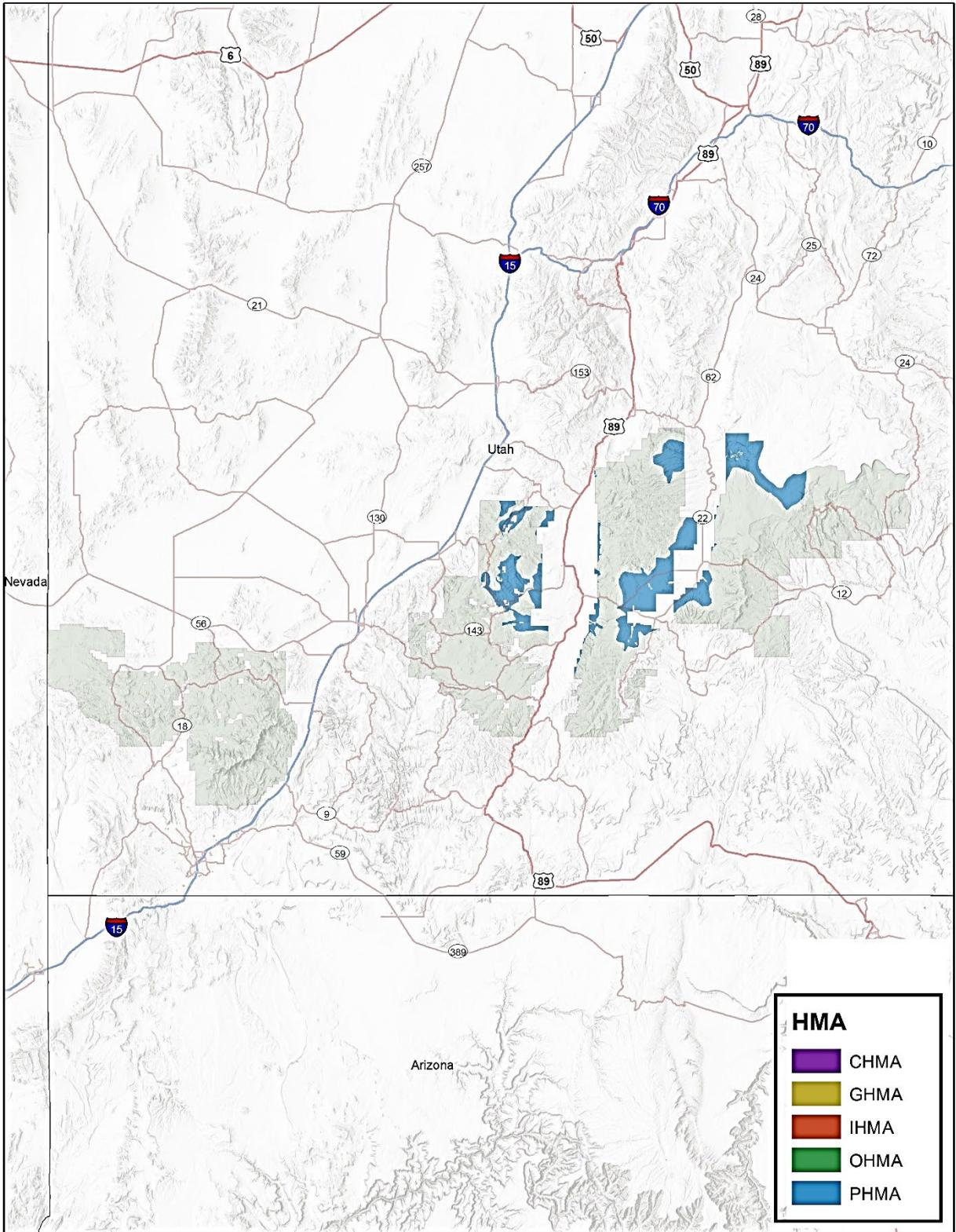
Map A-29. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas in Utah.



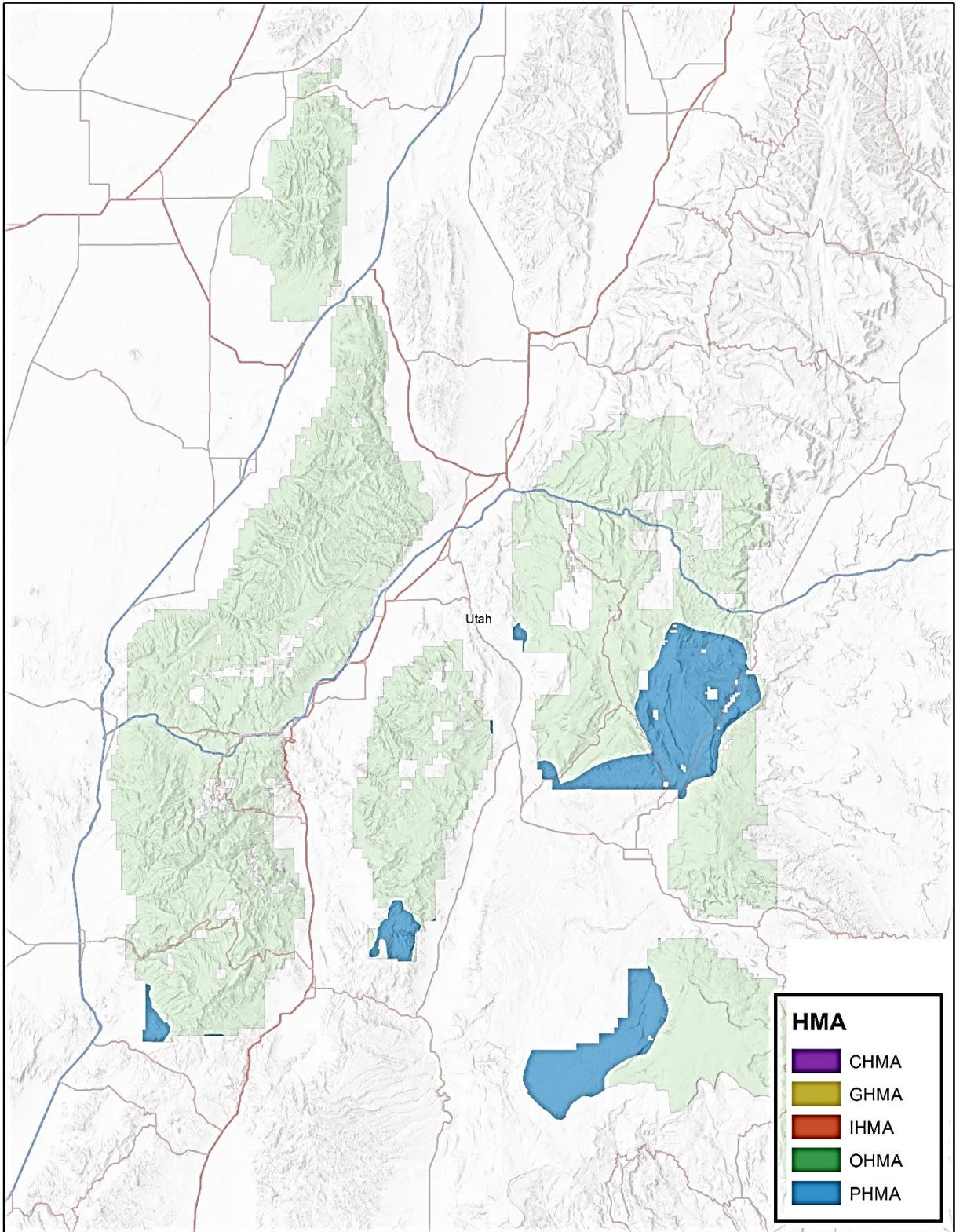
Map A-30. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas on the Ashley NF.



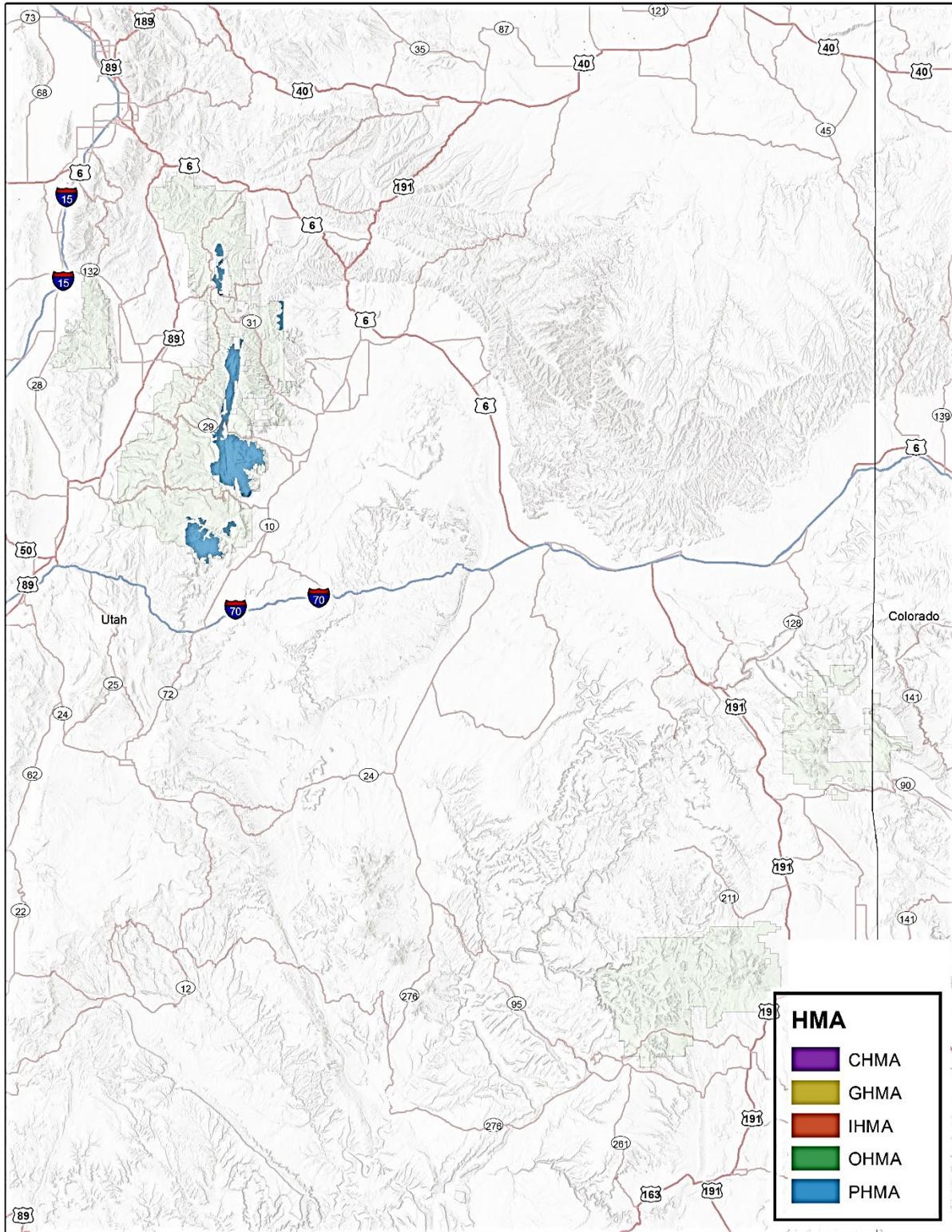
Map A-31. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas on the Dixie NF.



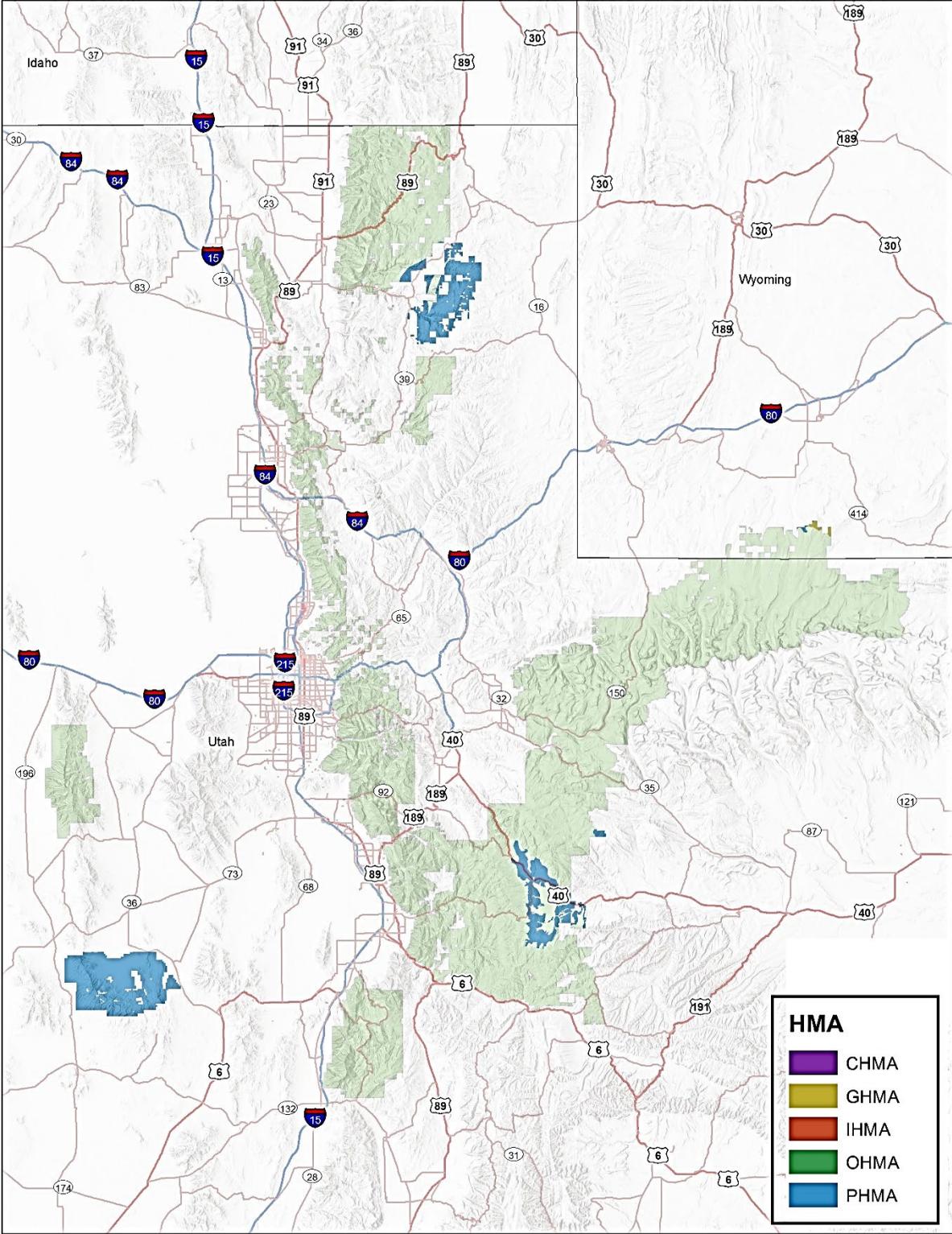
Map A-32. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas on the Fishlake NF.



Map A-33. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas on the Manti-La Sal NF.

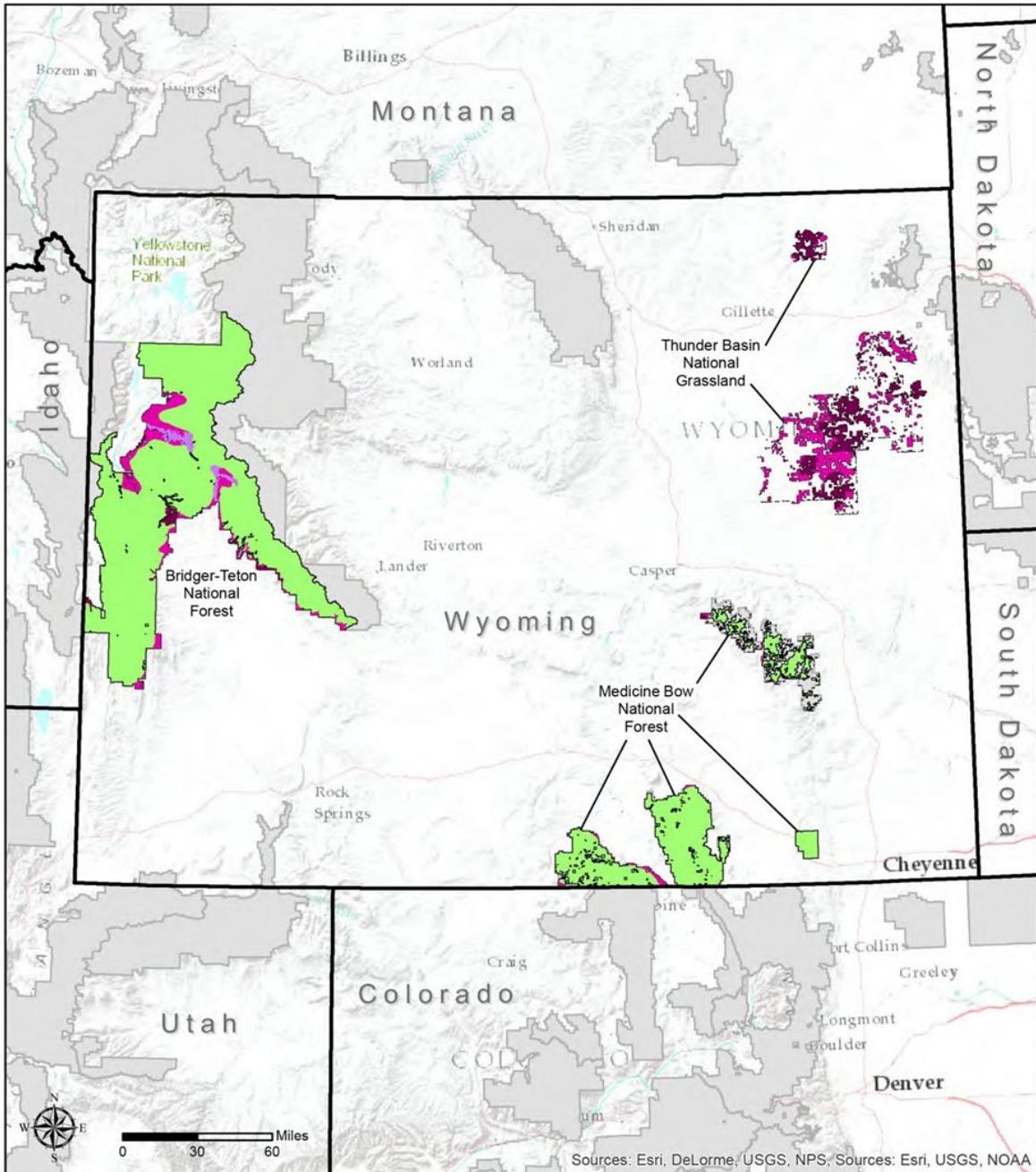


Map A-34. Alternative 3 – State of Utah Alternative. GRSG Habitat Management Areas on the Uinta-Wasatch-Cache NF.



Wyoming Maps

Map A-35. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas in Wyoming.



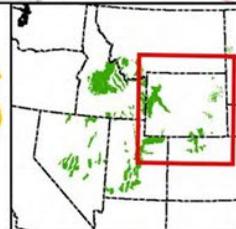
GRSG Habitat on National Forest System Lands in Wyoming

- GHMA
- National Forest System GRSG EIS Lands in Wyoming
- PHMA - Priority Core
- Other National Forest System Lands
- PHMA - Priority Connectivity
- Sage Grouse Focal Areas on NFS Lands

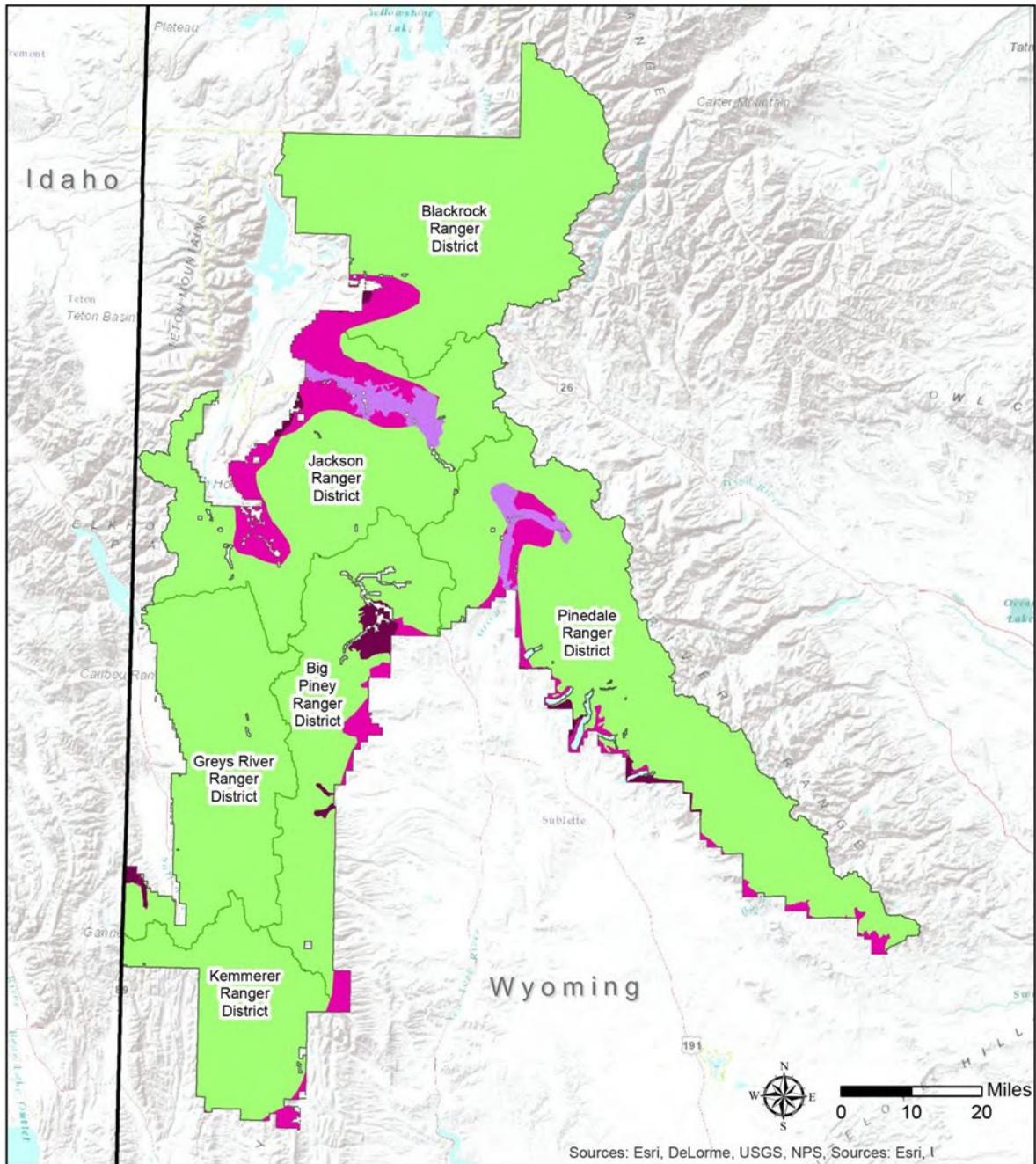


September 2015

DISCLAIMER: The Forest Service uses the most current and complete data available. GIS data, maps, and product accuracy may vary. This map is intended to be used with the Greater Sage-grouse EIS efforts only. The Forest Service reserves the right to correct, update, modify or replace GIS products and maps without notification.



Map A-36. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Bridger-Teton National Forest.



GRSG Habitat on the Bridger-Teton National Forest

- GHMA
- PHMA - Priority Core
- PHMA - Priority Connectivity

National Forest System GRSG EIS Lands

Bridger-Teton National Forest

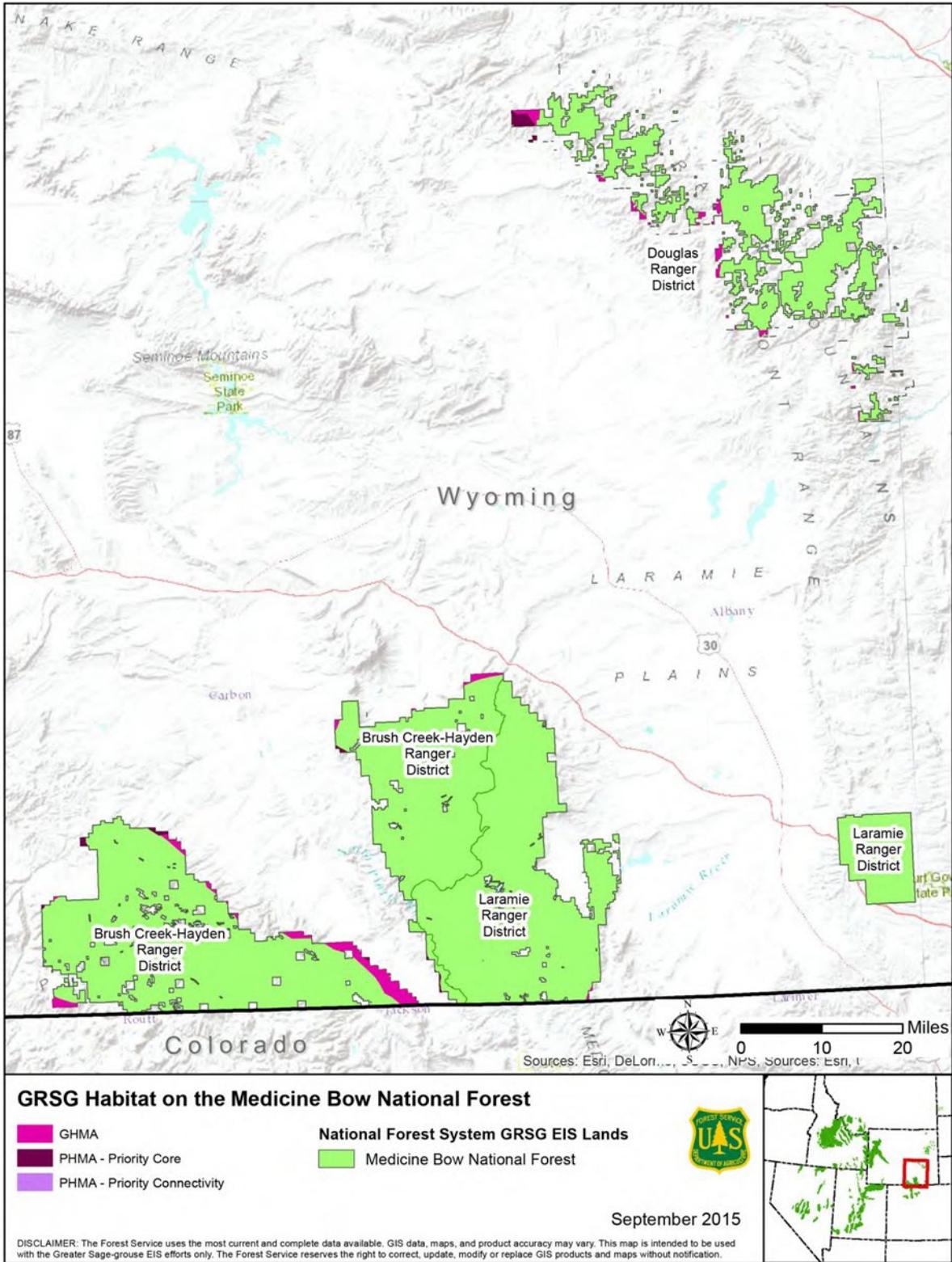
Sage Grouse Focal Areas on NFS Lands



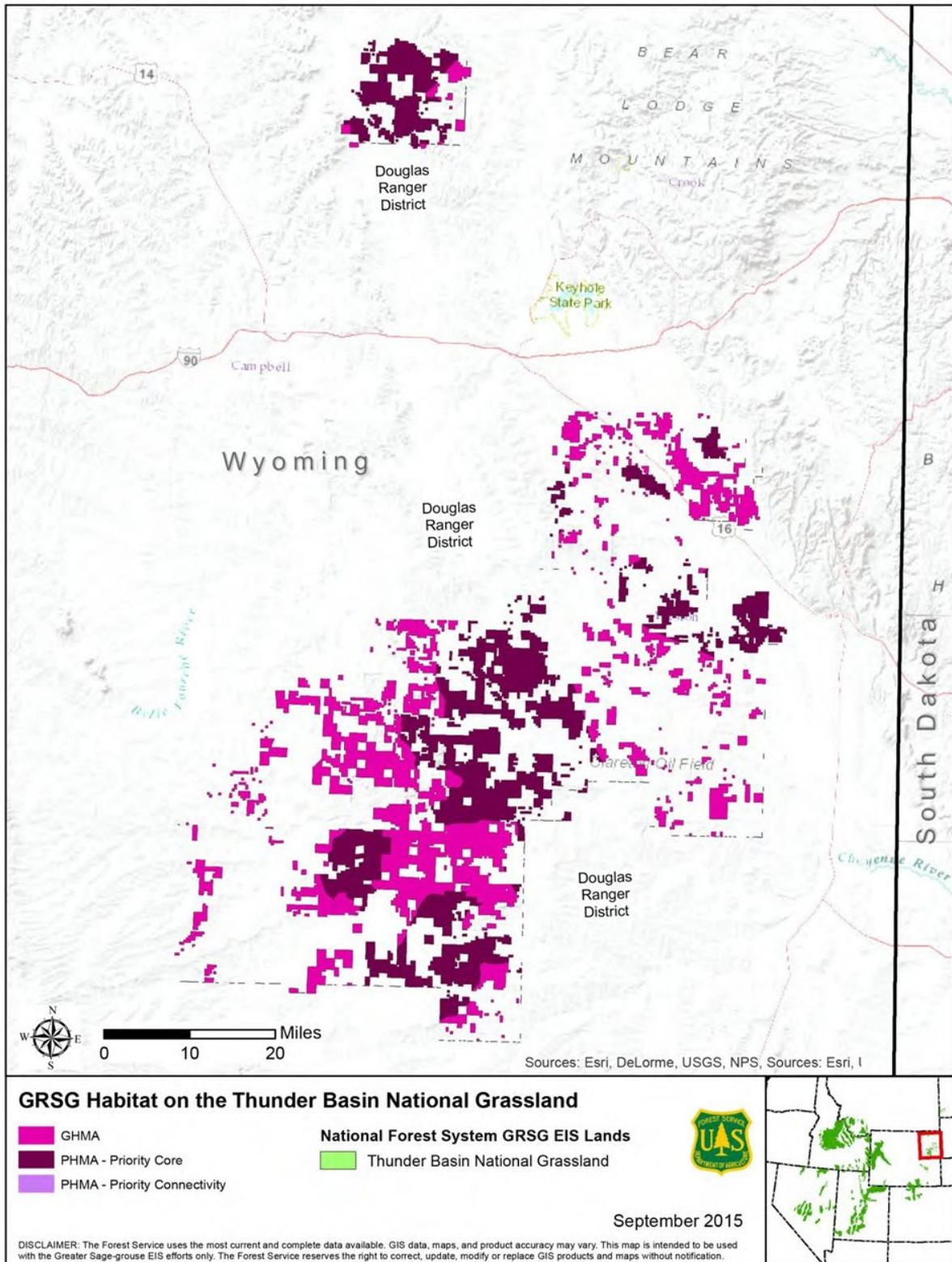
September 2015

DISCLAIMER: The Forest Service uses the most current and complete data available. GIS data, maps, and product accuracy may vary. This map is intended to be used with the Greater Sage-grouse EIS efforts only. The Forest Service reserves the right to correct, update, modify or replace GIS products and maps without notification.

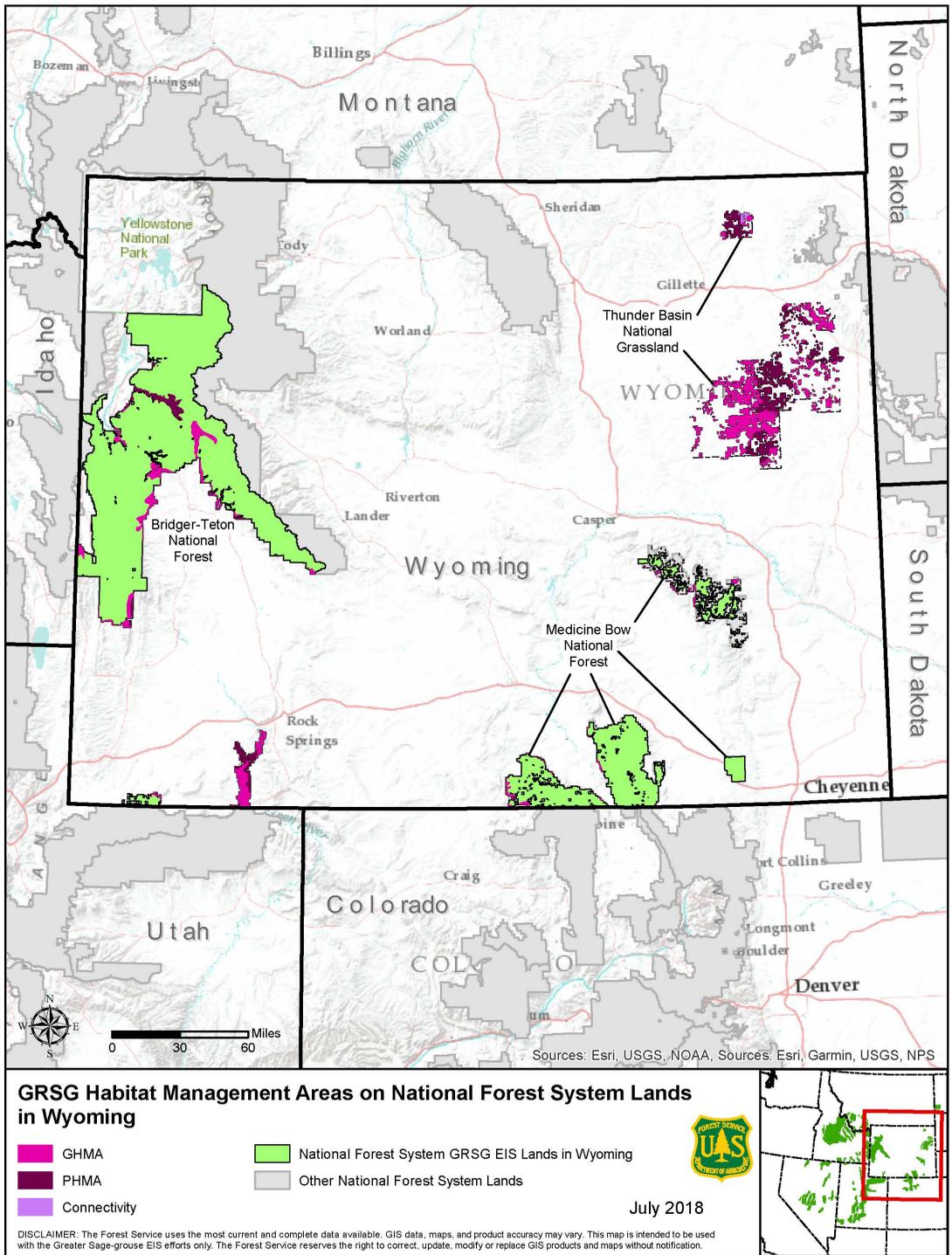
Map A-37. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Medicine Bow National Forest.



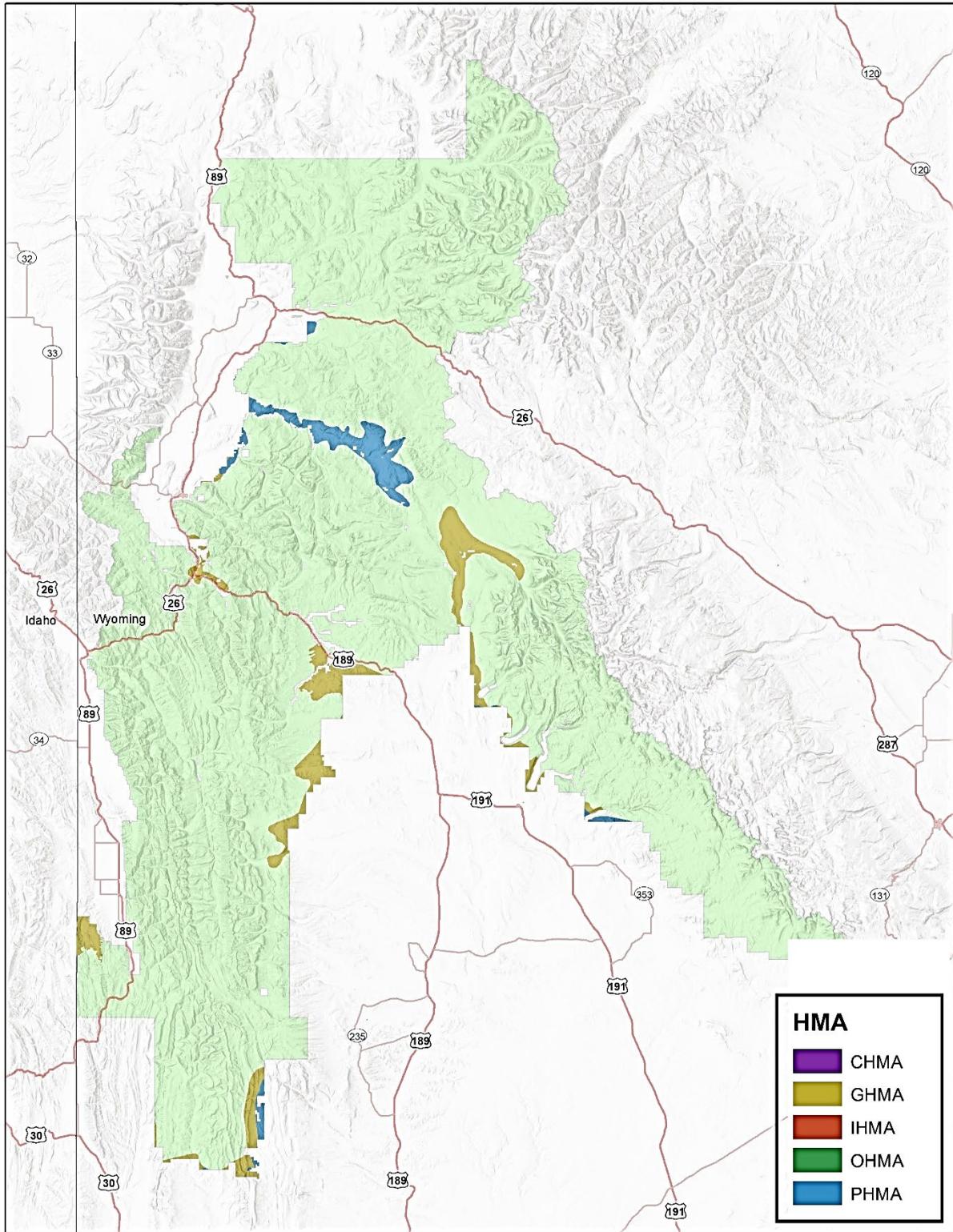
Map A-38. Alternative 1 - No Action Alternative. GRSG Habitat Management Areas on the Thunder Basin National Grassland.



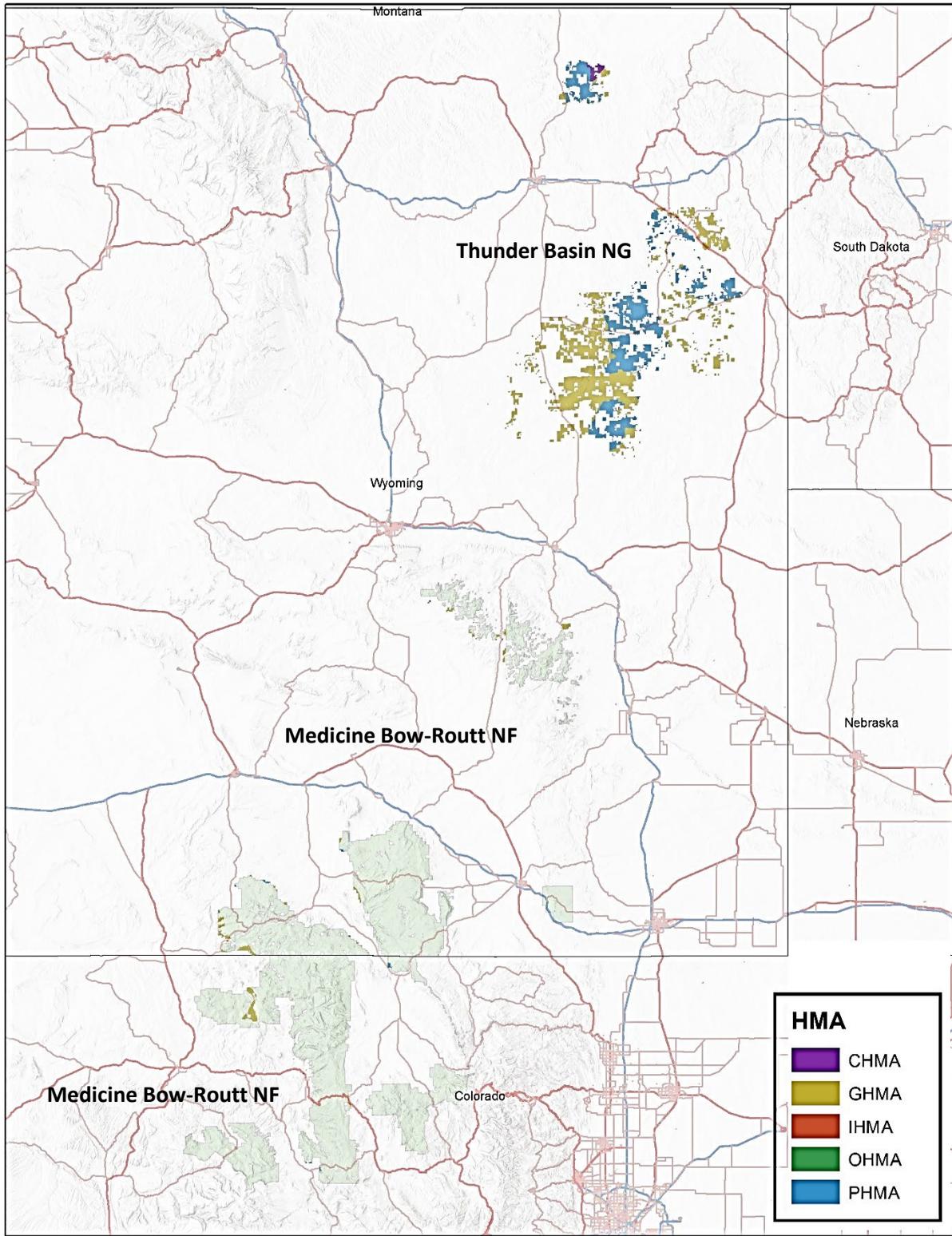
Map A-39. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas in Wyoming.



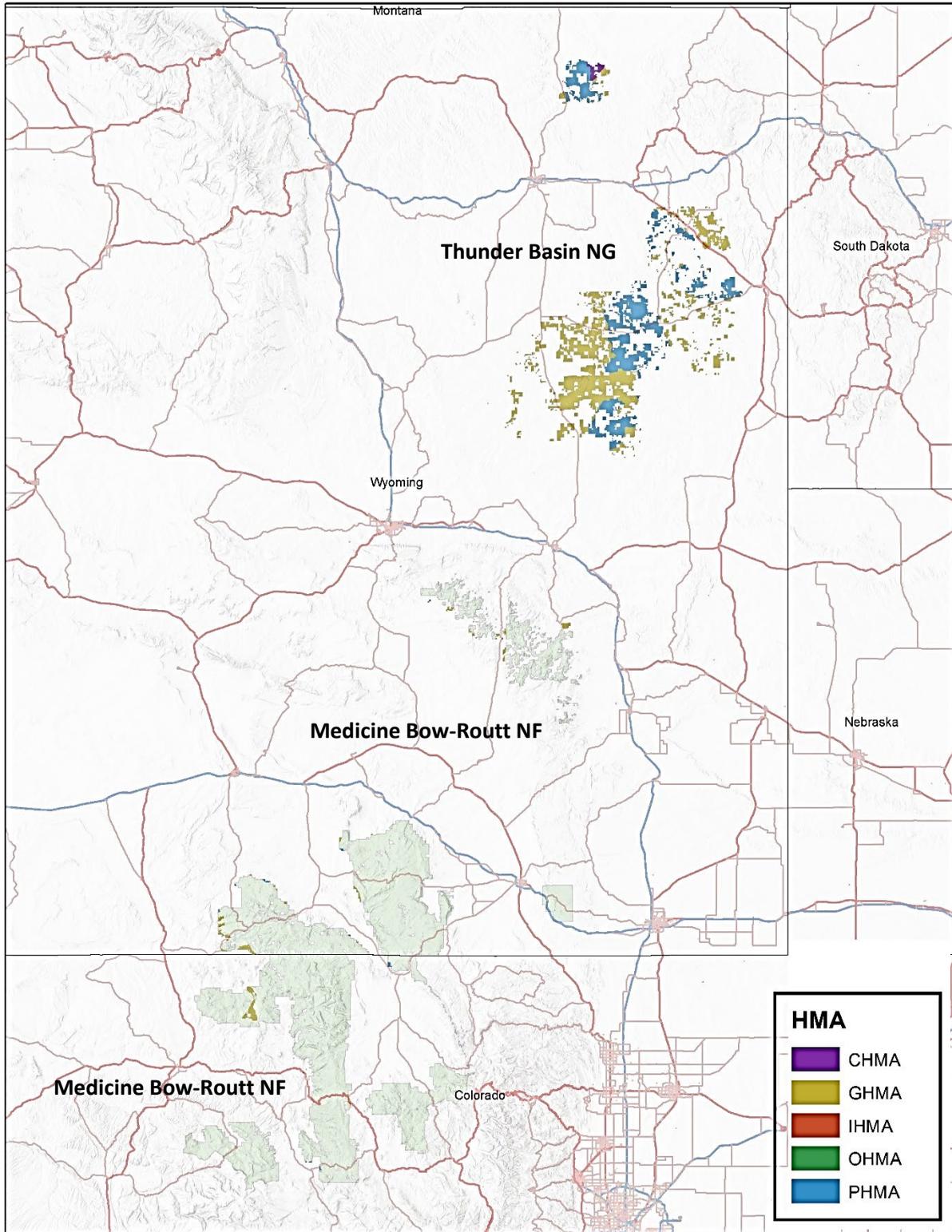
Map A-40. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Bridger-Teton National Forest.



Map A-41. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Medicine Bow National Forest.



Map A-42. Alternative 2 - Proposed Action Alternative. GRSG Habitat Management Areas on the Thunder Basin National Grassland.



**APPENDIX B -
NORTHWESTERN
COLORADO**

DESIRED CONDITIONS TABLE

Table B-1. Northwestern Colorado - Seasonal habitat desired conditions for the greater sage-grouse at the landscape scale.

ATTRIBUTE	INDICATORS	DESIRED CONDITION
BREEDING AND NESTING^{1,2,3} (Seasonal Use Period from March 1 to June 15) Apply 4 miles from active leks. ⁴		
Lek Security	Proximity of trees ⁵	Trees or other tall structures are absent 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 cover ^{6,7,8}	15 to 25%
	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 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
	Perennial forb canopy cover ^{6,7,8} Arid sites ⁹ Mesic sites ¹⁰	≥5% ^{6,7} ≥10% ^{6,7}
BROOD-REARING/SUMMER¹ (Seasonal Use Period from June 16 to October 31)		
Cover	Seasonal habitat extent ⁷ (Percent of seasonal habitat meeting desired conditions)	>40% of the brood-rearing/summer habitat
	Sagebrush canopy cover ^{6,7,8}	10 to 25%
	Sagebrush height ^{7,8}	16 to 32 inches
	Perennial grass and forb canopy cover ^{7,8}	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition ^{12, 15}
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present ¹³
	Sagebrush cover adjacent to riparian areas/mesic meadows ⁶	Within 328 feet
WINTER¹ (Seasonal Use Period from November 1 to 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 cover above snow ^{6,7,8}	>10%
	Sagebrush height above snow ^{6,7,8}	>10 inches ¹⁴

¹Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the local unit cannot shorten or lengthen the amount of days.

²Doherty 2008

³Holloran and Anderson 2005

⁴Buffer distance may be changed only if 3 out of 5 years of peer-reviewed and published telemetry studies indicate the 4 miles is not appropriate.

⁵Baruch-Mordo et al. 2013

⁶Stiver et al. 2015

⁷Connelly et al. 2000

⁸Connelly et al. 2003

⁹10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹⁰≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹¹Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (Stiver et al. 2015).

¹²Existing LMP desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements.

¹³Preferred forbs are listed in Stiver et al. 2015 (Table B-1). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

¹⁴The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy sagebrush stands.

¹⁵Prichard et al. 2003, Dickard et al. 2015

NORTHWEST COLORADO MITIGATION STRATEGY MANAGEMENT APPROACH

Introduction

The Forest Service may, in accordance with relevant plan components and in alignment with state-based compensatory mitigation efforts, require mitigation that provides no net loss to the greater sage-grouse when undertaking Forest Service management actions or authorizing third party actions that result in greater sage-grouse habitat loss and degradation, consistent with valid existing rights and applicable law.

The Forest Service will incorporate elements of The Planning Rule at 36 CFR 219.7(e)(1), which discusses required plan components, including: the intent of (iii) Standards “...to avoid or mitigate undesirable effects...” and (iv) Guidelines to “...to avoid or mitigate undesirable effects...” The greater sage-grouse is also a potential species of conservation concern, so the Forest Service will also follow the Forest Service Handbook FSH 1099.12, 23.13 (c) 5 (c) (2) and work “...towards an all-lands approach to species conservation with other land managers across the range of the species, including efforts to mitigate threats or stressors and to provide ecological conditions that would support the species.” Mitigation will follow the mitigation hierarchy from the White House Council on Environmental Quality’s (CEQ’s) NEPA regulations at 40 CFR 1508.20 which explain that mitigation first involves avoiding environmental impacts when possible, then minimizing impacts, and then compensating for residual impacts by applying beneficial mitigation actions.

If Forest Service management actions and authorized third party actions result in habitat loss and degradation that would otherwise not be allowed, even after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation may be used to provide no net habitat loss to the greater sage-grouse. Mitigation actions ought to account for any uncertainty associated with the effectiveness of such mitigation, be durable, timely, and in response to the residual impacts and in addition to other mitigation efforts.

The following steps identify the screening process by which the FS may review proposed activities or projects in PHMA and GHMA. This process provides a consistent approach and ensures that authorization of these projects, if granted, will appropriately mitigate impacts and be consistent with goals and objectives for greater sage-grouse conservation. The following steps provide for a sequential screening of proposals. However, Steps 2 through 6 can be done concurrently.

The screening process is meant to apply to externally generated projects that would cause discrete anthropogenic disturbances.

Screening Process

Step I - Determine Proposal Adequacy

This screening process is initiated upon formal submittal of a proposal for authorization for use of FS administered lands. The actual documentation of the proposal would include, at a minimum, a description of the location, scale of the project, and timing of the disturbance. The acceptance of the proposal(s) for review would be consistent with existing protocol and procedures for each type of use.

Upon a determination that the proposed project would affect greater sage-grouse or greater sage-grouse habitat within PHMA, the deciding official would use the following steps to assist in evaluating the proposal, along with any other necessary assessments.

Step 2 - Evaluate Proposal Consistency with LMP

The interdisciplinary team would evaluate whether the proposal would be allowed as prescribed, according to plan components in the LMP. If the proposal is for an activity that is specifically prohibited, the applicant should be informed that the application is being rejected since it would not be an allowable use, regardless of the design of the project.

Step 3 - Determine if Greater Sage-Grouse Habitat Can be Avoided

If the project can be relocated so that it would not have an impact on greater sage-grouse and greater sage-grouse habitat and still achieve objectives of the proposal, relocate the proposed activity and proceed with the appropriate process for review, decision, and implementation (NEPA and decision record).

Step 4 - Determine Proposal Consistency with Density and Disturbance Limitations

If the proposed activity is subject to the disturbance cap (see Disturbance Cap Guidance), the deciding official should evaluate whether the disturbance from the activity would exceed the cap (e.g. by coordinating with the Bureau of Land Management and using the Disturbance Analysis and Reclamation Tracking Tool (SDARTT) or a local disturbance database. If current disturbance within the activity area or the anticipated disturbance from the proposed activity exceeds this threshold, the project would be deferred until such time as the amount of disturbance within the area has been reduced below the threshold, redesigned so as to not result in any additional surface disturbance (collocation), or redesigned to move it outside of PHMA.

Disturbance Cap Guidance

The disturbance cap would apply to anthropogenic disturbances in PHMA on new leases and land use authorizations (such as ROWs). 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. The disturbance cap is limited to 3 percent and would be calculated for each Colorado greater sage-grouse Biologically Significant Unit. Only physical disturbance would be counted for the 3 percent disturbance cap. Disruptive impacts, such as wildfire, would be considered in the site-specific analysis when surface-disturbing proposals are being considered.

Step 5 - Determine Projected Sage-Grouse Population and Habitat Impacts

If it is determined that the proposed project may move forward, based on Steps 1 through 3, above, then the deciding official would analyze whether the project would have a direct or indirect impact on greater sage-grouse populations or habitat within PHMA or GHMA. The analysis would include an evaluation of all other plan components in the LMP.

Step 6 -Determine Minimization Measures

If impacts on greater sage-grouse or greater sage-grouse habitat cannot be avoided by relocating the project, then consider the tools above to apply appropriate minimization measures. Minimization measures could include timing limitations, noise restrictions, and design modifications.

Step 7 -Apply Compensatory Mitigation or Reject/Defer Proposal

If it is determined after screening of the proposal (Steps 1 through 6) that there are unacceptable residual impacts, the FS may approve of the project if CPW's recommendation for compensatory mitigation is followed, which achieves the following:

- Achieves measurable outcomes for habitat function that can be documented
- Results in conservation actions that remove or ameliorate a potential threat to greater sage-grouse, have a positive influence on and lead to improvement of habitat function and the overall conservation status of the species, are scientifically sound, and are conservation actions above what would have occurred absent the mitigation action
- Provides habitat/conservation values, services, and functions that are at least equal to the lost or degraded values, services, and functions caused by the impact
- Incorporates measures to account for a level of risk that a particular mitigation action may fail or not achieve its stated objectives, and uncertainty about the level and duration of the estimated impacts
- Provides benefits that are durable and in place for at least the duration of the residual impacts
- Encourages the application of offsets prior to the impact occurring to ensure no lag time occurs between impacts and offsets
- Offers transparency and certainty to developers and regulators

NORTHWEST COLORADO ADAPTIVE MANAGEMENT APPROACH

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.

Principles of adaptive management are incorporated into the conservation measures in the LMP 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 FS’s adaptive management approach for the Northwest Colorado greater sage-grouse.

Adaptive Management – Triggers

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 may not be specific to any particular project, but identify habitat and population thresholds. The FS, in cooperation with the BLM, USFWS and the State of Colorado, has 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 implementation level to address habitat or population losses.

Examples of soft triggers and responses are:

Soft trigger: Based on local knowledge, a population is determined to have limited brood-rearing habitat, which is resulting in low recruitment.

Response: Prioritize funding for habitat improvement projects in mesic areas designed to improve brood rearing.

Soft trigger: Monitoring crews find several Greater Sage-Grouse mortalities along fence line.

Response: Evaluate utility of existing fences, mark necessary fences, and prohibit new fences in the vicinity of leks. In the examples above, a soft trigger is tripped, and consequently the FS would change management to be more restrictive or identify habitat improvement projects identified to address a specific causal or limiting factor based on 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 LMP, population trends would be monitored by the Northwest Colorado Sage-Grouse Statewide Implementation Team, which would consist of technical experts including FS, BLM, CPW, Natural Resource Conservation Service, and USGS biologists. This group would meet annually and would evaluate the health of each population and make recommendations to the FS on any changes to fine site management. This statewide implementation team would also evaluate the effects to Greater Sage-Grouse habitat and populations due to FS and BLM-permitted activities throughout the previous year(s) and make recommendations for changes in management or locations that should be avoided, for example. The group would also work with existing local population Greater Sage-Grouse working groups (e.g., Northwest Colorado, Parachute-Piceance-Roan, Middle Park, and North Park) to gather local knowledge that could inform adaptive management. This group would also evaluate the effectiveness of mitigation and make recommendations on alternative mitigation strategies and locations, such as the Colorado Habitat Exchange.

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 greater sage-grouse 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 LMP.

The hard trigger is based on two metrics: Greater sage-grouse 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.

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 statewide implementation team as described in the Soft Trigger section, above, will review summary information, above.

Hard Trigger Response

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.

APPENDIX C - IDAHO

DESIRED CONDITIONS TABLE

The desired condition values identified in Table C-1 are initial references based on range-wide habitat selection by greater sage-grouse and should be refined collaboratively at a local level, if appropriate. Not all areas will be capable of achieving desired condition values due to factors such as variation of vegetation communities and ecological site potential.

Table C-1. Idaho - Seasonal habitat desired conditions for greater sage-grouse.

ATTRIBUTE	INDICATORS	DESIRED CONDITION
BREEDING AND NESTING^{1,2,3} (Seasonal Use Period March 1-June 15⁵)		
Apply 6.2 miles from active leks⁴		
Lek Security	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 cover ^{6,7,8}	15 to 25%
	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 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, 16}
	Perennial forb canopy 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 cover ^{6,7,8}	10 to 25%
	Sagebrush height ^{7,8}	16 to 32 inches
	Perennial grass and forb canopy cover ^{7,8}	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition ^{12, 17}
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present ¹³
	Sagebrush cover adjacent to riparian areas/mesic meadows ⁶	Within 328 feet (100 meters)
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 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 6.2 miles is not appropriate.

⁵ Idaho Sage-grouse Advisory Committee 2006.

⁶ Stiver et al. 2015

⁷ Connelly et al. 2000.

⁸ Connelly et al. 2003

⁹ 10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹⁰ \geq 12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹¹ Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (Stiver et al. 2015).

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 greater sage-grouse habitat requirements.

¹³ Preferred forbs are listed in Stiver et al. 2015 (Table B-1). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

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 Smith et al. 2017

¹⁷ Prichard et al. 2003, Dickard et al. 2015

Table C-2. Idaho - Treatment acres per decade.¹

FOREST/GRASSLAND	MECHANICAL²	ACRES PRESCRIBED FIRE³	GRASS RESTORATION⁴
Boise	1,000	2,000	0
Caribou-Targhee-Curlew	3,000	2,000	3,000
Salmon-Challis	5,000	1,000	0
Sawtooth	7,000	1,000	7,000

¹ These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of 10 years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the 10-year simulation using stochastic, not deterministic, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.

² Removal of conifers that have invaded sagebrush including phase-one juniper that is 10% or less and reducing sagebrush cover in areas over 30% canopy cover.

³ Acres are those that are greater than 30% sagebrush canopy cover and/or invaded by 10% or greater conifer.

⁴ Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation.

IDAHO MITIGATION STRATEGY MANAGEMENT APPROACH

General

The Forest Service may, in accordance with relevant plan components and in alignment with state-based compensatory mitigation efforts, require mitigation that provides no net loss to the greater sage-grouse when undertaking Forest Service management actions or authorizing third party actions that result in greater sage-grouse habitat loss and degradation, consistent with valid existing rights and applicable law.

The Forest Service will incorporate elements of The Planning Rule at 36 CFR 219.7(e)(1), which discusses required plan components, including: the intent of (iii) Standards “...to avoid or mitigate undesirable effects...” and (iv) Guidelines to “...to avoid or mitigate undesirable effects...” The greater sage-grouse is also a potential species of conservation concern, so the Forest Service will also follow the Forest Service Handbook FSH 1099.12, 23.13 (c) 5 (c) (2) and work “...towards an all-lands approach to species conservation with other land managers across the range of the species, including efforts to mitigate threats or stressors and to provide ecological conditions that would support the species.” Mitigation will follow the mitigation hierarchy from the White House Council on Environmental Quality’s (CEQ’s) NEPA regulations at 40 CFR 1508.20 which explain that mitigation first involves avoiding environmental impacts when possible, then minimizing impacts, and then compensating for residual impacts by applying beneficial mitigation actions.

If Forest Service management actions and authorized third party actions result in habitat loss and degradation that would otherwise not be allowed, even after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation may be used to provide no net habitat loss to the greater sage-grouse. Mitigation actions ought to account for any uncertainty associated with the effectiveness of such mitigation, be durable, timely, and in response to the residual impacts and in addition to other mitigation efforts.

In 2015, Governor Otter issued Executive Order 2015-04 directing all executive agencies to implement the Idaho Sage-Grouse Management Plan to the extent consistent with State law. The application of the foundational elements of Idaho’s Sage-Grouse Management Plan are consistent with the USFWS COT (Conservation Objectives Team) report and apply across all land ownerships in Idaho. This plan included compensatory mitigation for large-scale anthropogenic development within a set of project screening criteria, based on the three-tiered management approach if new, significant, and unavoidable impacts are demonstrated to be associated with the project. In the Governor’s plan, if unavoidable impacts are demonstrated to be associated with the project, a compensatory mitigation plan would be based on the guiding principles of Idaho’s Mitigation Framework, 2011. The Forest Service deciding official may emphasize use of Idaho’s Compensatory Mitigation Framework as a framework for identifying and ensuring adequate compensatory mitigation (if needed) when approving projects.

IDAHO ADAPTIVE MANAGEMENT PLAN

MANAGEMENT APPROACH

Introduction

Adaptive management is a decision process that promotes flexible resource-management decision-making that can be adjusted as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust 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.

The adaptive management strategy described in this appendix consists of the following elements:

1. Scale at which the Forest Service will monitor and apply adaptive management triggers in Idaho
2. Soft and hard triggers for habitat and population thresholds; and
3. Responses or actions to be taken if a trigger is met.

Adaptive management provides an additional framework for assessing the effectiveness of conservation measures. The conservation measures, along with adaptive management, are incorporated in the FEIS to ameliorate threats to greater sage-grouse, thereby increasing the likelihood that the conservation measures are effective in reducing threats to greater sage-grouse and its habitat.

The adaptive management strategy includes soft and hard triggers and responses. The triggers are not specific to any particular project, but identify habitat and population thresholds outside of natural fluctuations or variations. Triggers are based on the two key metrics that are being monitored; habitat loss and/or population declines. Adaptive management, with specific triggers, provide additional certainty that the regulatory mechanisms are robust and able to respond to a variety of conditions and circumstances quickly and effectively to conserve greater sage-grouse habitat. Tripping a soft or hard trigger will initiate a state-federal inter-agency dialogue to evaluate causal factors and recommend adjustments in management activities or additional potential implementation-level activities to reverse the trend. Any adjustment to management activities or new management activities proposed as a result of tripping a soft or hard trigger will be developed with the participation of agency leadership and science experts.

Adaptive Management Scale

A biologically significant unit (BSU) defines the geographic extent and scale in Idaho that will be considered when evaluating anthropogenic disturbance and the adaptive management habitat triggers. Disturbance and habitat triggers are calculated differently since anthropogenic disturbance and habitat loss affect greater sage-grouse differently. In Idaho, the BSU is the spatial extent of breeding and wintering habitat within priority habitat management areas (PHMA) and important habitat management areas (IHMA) within a Conservation Area in Idaho.

Triggers

Soft triggers are an intermediate threshold indicating that management changes are needed at the project/implementation level to address greater sage-grouse habitat and population losses. If a soft trigger is met, the Forest Service would apply additional mitigation measures to alleviate the known or probable causes in the decline of greater sage-grouse populations or its habitats with consideration of local knowledge and conditions. Soft triggers and responses, if the triggers are met, are described below.

Hard triggers are a threshold indicating that immediate action is necessary to stop a severe deviation from greater sage-grouse conservation goals and objectives, as set forth in the Forest Service plans. Hard triggers and responses, if the triggers are met, are described below.

Population Triggers

▪ ***Soft Population Triggers***

Adaptive Regulatory Criteria for Population Soft Triggers are defined as:

- A 10% decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below 1.0 within PHMA within a Conservation Area over the same 3-year period; or
- A 10% decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below 1.0 within IHMA within a Conservation Area over the same 3-year period.

▪ ***Hard Population Triggers***

Adaptive Regulatory Criteria for Population Hard Triggers are defined as:

- A 20% decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within PHMA within a Conservation Area over the same 3-year period; or
- A 20% decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within IHMA within a Conservation Area over the same 3-year period.
- Significance is defined by the 90% confidence interval around the current 3-year finite rate of change. If the 90% confidence interval is less than, and does not include 1.0, then the finite rate of change considered significant. The finite rate of change and variance will be calculated following Garton et al. (2011).

Habitat Triggers

For purposes of evaluating the adaptive management triggers, effective habitat in Idaho is tracked using the Key Habitat Map, which is updated annually by BLM in coordination with Idaho Department of Fish and Game, the Forest Service, the USFWS, and local working groups, tracks the areas of generally intact

sagebrush providing greater sage-grouse habitat during some portion of the year. Effective habitat equates to areas described as Key Habitat on the Key Habitat Map.

- ***Soft Habitat Triggers***

Criteria for Habitat Soft Triggers are defined as:

- A 10% loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline; or
- A 10% loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.

- ***Hard Habitat Triggers***

Criteria for Habitat Hard Triggers are defined as:

- A 20% loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline, inclusive of all land ownerships or
- A 20% loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.

The following state and federal agencies are expected to collaborate to implement Greater Sage-Grouse conservation in Idaho: Bureau of Land Management (BLM), Fish and Wildlife Service (USFWS), US Forest Service (USFS), Idaho Governor's Office of Species Conservation (OSC), Idaho Department of Fish and Game (IDFG), Idaho State Department of Agriculture (ISDA), Idaho Department of Lands (IDL), United States Geologic Survey (USGS), and Natural Resource Conservation Service (NRCS).

Idaho Technical Team: Technical experts from the above mentioned state and federal agencies comprise this team. This team's primary responsibilities are review triggers and causal factors.

Response to Triggers

- ***Soft Trigger Responses***

An interagency technical team would use monitoring information to assess when triggers have been met. When information indicates that the soft habitat or population trigger may have been met, an interagency technical team would assess the factor(s) leading to the decline and identify potential management actions. The Sage-Grouse Implementation Task Force may consider and recommend to the Forest Service and the BLM possible changes in management in the PHMA. In IHMA, the Sage-Grouse Implementation Task Force may review the causes for decline and identify potential management changes only to the extent those factors significantly impair the State's ability to meet the overall management objective. It is anticipated that Idaho Department of Fish and Game will collect data annually and will make recommendations to the Implementation Team by August 31st for population triggers and January 15th for habitat triggers.

Only where monitoring information indicates that the cause(s) of the decline is not a primary threat would the Sage-Grouse Implementation Task Force analyze the secondary threats to the species and determine whether further management actions are needed.

When any of the adaptive regulatory criteria for soft triggers have been met would the Sage-grouse Implementation Task Force evaluate causal factors and recommend potential implementation-level activities to the appropriate agency line officer.

- ***Hard Trigger Responses***

When any of the adaptive regulatory criteria for hard triggers have been met, all PHMA management direction would be applied to IHMA within that Conservation Area and the Sage- grouse Implementation Task Force would evaluate causal factors and recommend additional potential implementation-level activities to the appropriate agency line officer.

IDAHO ANTHROPOGENIC DISTURBANCE CAPS MANAGEMENT APPROACH

Anthropogenic disturbance will be tracked within the Biologically Significant Units by the Idaho BLM State Office. Prior to authorizing new infrastructure that would count against the disturbance cap within a BSU, Idaho State BLM should be consulted to determine the amount of existing disturbance in the BSU and what if any the proposed/authorized project would contribute to the disturbance cap.

If the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) in Greater Sage-Grouse PHMA (or IHMA in Idaho) in any given BSU, no further discrete anthropogenic disturbances (subject to applicable laws, such as the Mining Law of 1872, as amended, regulations, and valid existing rights) will be permitted by the FS within greater sage-grouse PHMA and IHMA within the BSU. This would be in effect until the disturbance has been reduced to less than the cap. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management and includes the following developments:

- Oil and gas wells and development facilities
- Coal mines
- Wind towers
- Solar fields
- Geothermal development facilities
- Mining (active locatable, nonenergy leasable and salable developments)
- Roads
- Railroads
- Power lines
- Communication towers
- Other vertical structures
- Coal bed methane ponds
- Meteorological towers (e.g., wind energy testing)
- Nuclear energy facilities
- Airport facilities and infrastructure
- Military range facilities and infrastructure
- Hydroelectric plants
- Recreation areas facilities and infrastructure

IDAHO TECHNICAL AND POLICY TEAMS MANAGEMENT APPROACH

Idaho proposed using a two-team approach to ensure collaborative implementation efforts regarding Greater Sage-Grouse conservation in Idaho.

The following state and federal agencies are expected to collaborate to implement greater sage-grouse conservation in Idaho: BLM, US Fish and Wildlife Service (USFWS), Forest Service, Idaho Governor's Office of Species Conservation (OSC), Idaho Department of Fish and Game (IDFG), Idaho State Department of Agriculture (ISDA), Idaho Department of Lands (IDL), United States Geologic Survey (USGS), and Natural Resource Conservation Service (NRCS).

Idaho technical team: Technical experts from the above-mentioned state and federal agencies comprise the Technical team. This team's primary responsibilities are to review and analyze data and proposals related to infrastructure development and conservation actions in greater sage-grouse habitat and to make recommendations to the policy team.

Specifically, the responsibilities of the Technical Team are as follows:

- Compile and analyze adaptive management population and habitat trigger data and
- recommend conservation actions based on the results of their analysis
- Perform causal factor analysis when a soft or hard trigger is tripped; population data are
- collected under the direction of IDFG, and habitat data on public lands are collected
- Review proposals for large-scale development projects, such as new transmission lines,
- highways, power plants, and wind or solar farms, to assess anthropogenic screening and development criteria submit their findings and recommendations to the policy team for review and decisions
- Review applications for exceptions of the NSO policy in PHMA and IHMA and make
- recommendations to the policy team
- Review applications for exceptions to allow a new free use mineral material pit in PHMA
- Review proposals to modify Greater Sage-Grouse habitat designations and make
- recommendations to the policy team
- Review proposals to modify the adaptive management trigger system described in the
- ARMPA and make recommendations to the policy team
- Review BSU scale disturbance cap annual report from the BLM National Operations
- Center
- Perform other duties as the policy team may direct

Idaho policy team: Decision-makers from the above-mentioned state and federal agencies comprise this team. This team has the following responsibilities:

- Review and discuss recommendations from the technical team
- Strive for consensus among the team and provide recommendations to the deciding official
- Recommend, if necessary, changes to the adaptive management program
- Review and refine the vision for greater sage-grouse management in Idaho
- Recommend changes to the duties of the technical team by consensus of the policy team

This collaborative two-team approach provides the foundation for flexibility and cooperation in greater sage-grouse habitat management in Idaho. The interagency group technical experts in the technical team will review and summarize technical data and provide summaries and recommendations to the interagency group on the policy team. The policy team may include the deciding official for whatever proposals come to that team. The remainder of the team will act as policy advisors to aid the deciding official in considering the recommendations of the technical team. This process will ensure that both the technical- and the policy-related issues for each agency are considered as part of greater sage-grouse management in Idaho. Meetings/coordination of the policy team will be led by the deciding official of the proposal being discussed. Only proposals for large-scale anthropogenic disturbances within PHMA and IHMA need to be submitted.

MONITORING MANAGEMENT APPROACH

Actions and authorizations and progress toward completing and implementing activity-level plans, ought to be monitored consistently across all planning units and will be reported to Forest Service headquarters annually, with a summary report every 5 years, for the planning area.

The report ought to be based on current databases and information available at the time of writing, and some figures may be revised in later years as more complete information is compiled.

Major items for monitoring during the implementation of the Amendment

A. Implementation (Decision) Monitoring.

Measure: Number of authorizations (NEPA decisions) and associated conditions or restrictions (e.g., efforts to avoid, minimize, or compensatory mitigation) in PHMA and GHMA.

B. Habitat Monitoring.

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Energy and Mining Density (facilities and locations per unit area)

C. Population (Demographics) Monitoring.

D. Effectiveness Monitoring

Effectiveness Monitoring identifies various land agency contributions to habitat loss and calculates the trend of the above metrics over time by posing a series of additional questions:

1. Sagebrush Availability and Condition:

- a. Measure: Amount of sagebrush availability (existing vegetation) and the change in the amount and condition of sagebrush
- b. Measure: Existing amount of sagebrush on the landscape and the change in the amount relative to the pre-Euro American historical, and potential, distribution of sagebrush (Biophysical potential).
- c. Measure: Trend and condition of the indicators describing sagebrush characteristics important to sage-grouse

2. Habitat Degradation and Intensity of Activities:

- a. Measure: Amount of habitat degradation and the change in that amount
- b. Measure: The intensity of activities and the change in the intensity
- c. Measure: the amount of reclaimed energy-related degradation and the change in the amount

3. Measure: the population estimation of sage-grouse and the change in the population estimation?
4. Measure: Forest Service contributions to changes in the amount of sagebrush
5. Measure: Forest Service contributions to habitat disturbance
6. Is the Amendment effective?
 - a. Measure: movement toward, away, or neutral to sage-grouse desired conditions
 - b. Measure: Disturbances within sage-grouse areas relative to objectives (e.g., caps)
 - c. Measure: Are sage-grouse populations within the plan boundary increasing, stable, or declining?

To satisfy these monitoring requirements, Region 4, in collaboration with Regions 2 and 1, ought to collect required information from various sources, with particularly close cooperation with the BLM and state wildlife agencies.

APPENDIX D - NEVADA

DESIRED CONDITION TABLES

Table D-1. Nevada - Seasonal use periods for greater sage-grouse, for use with specific plan components.

Seasonal Use Period*	Dates
Breeding and Nesting	March 1 – June 30
<ul style="list-style-type: none"> • Lekking 	<ul style="list-style-type: none"> • March 1 – May 15
<ul style="list-style-type: none"> • Nesting 	<ul style="list-style-type: none"> • April 1 – June 30
Brood-Rearing/Summer	May 15 – September 15
Fall	September 16 – October 31
Winter	November 1 – February 28

* Seasonal dates may be adjusted (i.e., start and end dates may be shifted earlier or later), but the amount of days cannot be shortened by the local unit.

Table D-2. Nevada - Treatment acres per decade.¹
(GRSG-GRSGH-O-026-Objective)

Forest	Vegetation Treatments ²	Annual Invasive Grass Treatment ³
Humboldt-Toiyabe NF Total	202,000 Acres	43,000 Acres

¹These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of 10 years.

²Prioritize the removal of conifers in Phase I and early Phase II pinyon and/or juniper stands in areas with a sagebrush component (see GRSG-GRSGH-GL-033-Guideline). Also includes reducing sagebrush cover in areas over 30% canopy cover.

³Acres presently invaded by and/or dominated by annual invasive grasses (see GRSG-GRSGH-GL-034-Guideline) that could be improved with methods such as herbicide application, mechanical removal, biological agents, and seeding of native vegetation.

NEVADA – SEASONAL HABITAT PREFERENCES

Tables D-3 and D-4 present sage-grouse local seasonal habitat preferences in Nevada. Because habitat preferences vary, for example among ecological sites and along latitudinal, topographic, or precipitation gradients, two tables are presented with values most closely associated with local conditions. The values for greater sage-grouse seasonal habitat preferences are initial references based on range-wide habitat selection by greater sage-grouse. These initial references should be refined collaboratively to fit local habitats used by greater sage-grouse, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the seasonal habitat preference values, due to inherent variation in vegetation communities and ecological site potential. Tables and values should be used as a basis for comparison when completing seasonal habitat assessments, as described in Stiver et al. 2015. Tables may be added and updated with administrative changes based on the best available scientific information.

Table D-3. Seasonal habitat preferences for greater sage-grouse.

(Generally applies in Ecoregion 342¹, although may be applied outside of Ecoregion 342¹ based on local ecological site conditions.)

ATTRIBUTE	INDICATORS	DESIRED VALUES
BREEDING AND NESTING ^{2,3,4} (Seasonal Use Period March 1 to June 30) (Within the Breeding and Nesting Period - Lekking Period: March 1 to May 15; Nesting Period: April 1 to June 30) Apply 4.0 miles from active leks. ⁵		
Lek Security	Proximity of trees ⁶	Trees or other tall structures are absent to uncommon within 3 miles (5 km) leks ^{7,8,16}
	Proximity of sagebrush to leks ⁷	Adjacent protective sagebrush cover within 328 feet of lek ⁷
	Seasonal habitat extent ⁸ (Percent of seasonal habitat meeting desired conditions.)	>80% of the breeding and nesting habitat
	Sagebrush canopy cover ^{7,8,9}	>15%
	Sagebrush height ⁸ Arid sites ^{7,8,10} Mesic sites ^{7,8,11}	>12 inches >16 inches
	Predominant sagebrush shape ⁷	>50% in spreading ¹²
	Perennial grass cover ^{7,8} Arid sites ^{8,10} Mesic sites ^{8,11}	>10% >15%
	Perennial grass height ^{7,8,9}	Provide overhead and lateral concealment from predators ^{8,16}
	Perennial forb canopy cover ^{7,8,9} Arid sites ¹⁰ Mesic sites ¹¹	>5% ^{7,8} >10% ^{7,8}

ATTRIBUTE	INDICATORS	DESIRED VALUES
BROOD-REARING/SUMMER² (Seasonal Use Period May 15 to September 15)		
Cover	Seasonal habitat extent ⁸ (Percent of seasonal habitat meeting desired conditions.)	>40% of the brood-rearing/summer habitat
	Sagebrush canopy cover ^{7,8,9}	10 to 25%
	Sagebrush height ^{8,9}	>16 inches
	Perennial grass and forb canopy cover ^{7,8}	>15%
	Riparian areas/mesic meadows	Proper Functioning Condition ^{13, 17}
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present ¹⁴
	Sagebrush cover adjacent to riparian areas/mesic meadows ⁷	Within 328 feet (100 meters)
Security	Riparian Area/Meadow Interspersion with adjacent sagebrush	Has adjacent sagebrush cover ^{6,7}
FALL/WINTER² (Seasonal Use Period September 16 to February 28) (Fall: September 16 to October 31; Winter: November 1 to February 28)		
Cover and Food	Seasonal habitat extent ^{7,8,9} (Percent of seasonal habitat meeting desired conditions.)	>80% of the winter habitat
	Sagebrush canopy cover above snow ^{7,8,9}	>10%
	Sagebrush height above snow ^{7,8,9}	>10 inches ¹⁵

¹Bailey et al. 1994.

²Seasonal 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 by the local unit. Seasonal dates are based on dates used by Nevada Department of Wildlife (NDOW) to designate sage-grouse seasonal use. These dates overlap to allow for localized variation across the state.

³Doherty 2008.

⁴Holloran and Anderson 2005.

⁵Buffer distance may be changed only if 3 out of 5 years of peer reviewed and published telemetry studies indicate the 4 miles is not appropriate.

⁶Baruch-Mordo et al. 2013

⁷Stiver et al. 2015

⁸Connelly et al. 2000.

⁹Connelly et al. 2003.

¹⁰10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (HAF 2014).

¹¹>12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (HAF 2014).

¹²Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (HAF 2014).

¹³Existing LMP desired conditions for riparian areas/mesic meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements.

¹⁴Preferred forbs are listed in Stiver et al. 2015 (Table B-1). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

¹⁵The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy, sagebrush stands.

¹⁶Coates et al. 2013

¹⁷Prichard et al. 2003, Dickard et al. 2015

Table D-4. Seasonal habitat preferences for greater sage-grouse.
(Generally applies in Ecoregion 341¹, although may be applied outside of Ecoregion 341 based on local ecological site conditions.)

	INDICATOR	DESIRED VALUES
GENERAL/LANDSCAPE-LEVEL		
Cover (Nesting)	Seasonal Habitat Needed	>65% of the landscape in sagebrush cover ²
	Annual Grasses	<5% ³
Security (Nesting)	Conifer encroachment	<3% phase I (>0% to <25% cover) No phase II (25 – 50% cover) No phase III (>50% cover)
Cover and Food (Winter)	Conifer encroachment	<5% phase I (>0% to <25% cover) No phase II (25 – 50% cover) No phase III (>50% cover)
	Sagebrush extent	>85% sagebrush land cover
BREEDING AND NESTING (Seasonal Use Period March 1-June 30) ⁴ (Within the Breeding and Nesting Period - Lekking Period: March 1 to May 15; Nesting Period: April 1 to June 30) Apply 4.0 miles from pending and active leks. ¹⁹		
Security ⁶	Tree cover	<3% landscape canopy cover within 1 km of leks ⁵
	Proximity of tall structures (1 meter above shrub canopy, excluding fences)	None within 3 miles (5 kilometers) ¹⁸
	Availability of sagebrush cover	Has adjacent sagebrush cover ^{9,17}
	Sagebrush canopy cover	>20% ^{13,14}
	Residual and live perennial grass cover	>10% if shrub cover <25% ^{5,7,8}
	Annual grass cover ⁷	<5% ¹⁵
	Perennial grass height	Provide overhead and lateral concealment from predators ^{9,20}
	Total shrub cover	>30% ^{7,13}

	INDICATOR	DESIRED VALUES
BROOD-REARING/SUMMER (Seasonal Use Period May 15 to September 15) ⁴		
Cover	Sagebrush canopy cover	10%-25% ⁹
	Perennial grass canopy cover and forbs	>15% combined perennial grass and forb canopy cover ⁹
	Perennial Grass Height	Provide overhead and lateral concealment from predators ^{9,20}
Cover and Food	Perennial forb canopy cover	>5% arid (<10 inches precipitation) >15% mesic (> 10 inches precipitation or within meadow system) ⁶
Food	Riparian Areas/Meadows	Proper Functioning Condition ¹⁷
	Understory species richness (in the vicinity of riparian areas/meadows)	>5 preferred forb species present ^{5,6}
Security	Riparian Area/Meadow Interspersion with adjacent sagebrush	Has adjacent sagebrush cover ^{9,17}
FALL/WINTER (Seasonal Use Period September 16 to February 28) ⁴ (Fall: September 16 to October 31; Winter: November 1 to February 28)		
Cover and Food	Sagebrush canopy cover	>10% above snow depth ⁹
	Sagebrush height	>10 inches (25 centimeters) above snow depth ⁹

¹ Bailey et al. 1994

² Aldridge and Boyce 2007.

³ Blomberg et al. 2012

⁴ 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. Seasonal dates are based on dates used by Nevada Department of Wildlife (NDOW) to designate sage-grouse seasonal use. These dates overlap to allow for localized variation across the state.

⁵ Baruch-Mordo et al. 2013

⁶ Casazza et al. 2011

⁷ Coates and Delehanty. 2010

⁸ Coates et al. 2013.

⁹ Connelly et al. 2000.

¹⁰ Connelly et al. 200

¹¹Doherty et al. 2008

¹²Hagen et al. 2007

¹³Kolada et al. 2009a.

¹⁴Kolada et al. 2009b.

¹⁵Lockyer et al. 2015

¹⁶Nevada Governor's Sage-grouse Conservation Team 2010

¹⁷Stiver et al. 2015.

¹⁸Gibson et al. 2013

¹⁹ Buffer distance may be changed only if 3 out of 5 years of telemetry studies indicate the 4 miles is not appropriate.

²⁰ Projects will be designed to provide overhead and lateral concealment of nests on a site specific basis

NEVADA MITIGATION STRATEGY MANAGEMENT APPROACH

GENERAL

The Forest Service may, in accordance with relevant plan components and in alignment with state-based compensatory mitigation efforts, require mitigation for the greater sage-grouse when undertaking Forest Service management actions or authorizing third party actions that result in greater sage-grouse habitat loss and degradation, consistent with valid existing rights and applicable law.

The Forest Service will incorporate elements of The Planning Rule at 36 CFR 219.7(e)(1), which discusses required plan components, including: the intent of (iii) Standards “...to avoid or mitigate undesirable effects...” and (iv) Guidelines to “...to avoid or mitigate undesirable effects...” The greater sage-grouse is also a potential species of conservation concern, so the Forest Service will also follow the Forest Service Handbook FSH 1099.12, 23.13 (c) 5 (c) (2) and work “...towards an all-lands approach to species conservation with other land managers across the range of the species, including efforts to mitigate threats or stressors and to provide ecological conditions that would support the species.” The Forest Service incorporates mitigation as an important element of this Greater Sage-grouse Land Management Plan (LMP) Amendment. The approach follows the regulations from the White House Council on Environmental Quality (CEQ) (40 CFR 1508.20) and the steps of avoid, minimize, and compensate, known as the mitigation hierarchy. When authorizing discretionary, third-party actions within greater sage-grouse priority and general habitat management areas (PHMA and GHMA respectively) that would result in direct, indirect, or cumulative impacts on greater sage-grouse or their habitat in Nevada, the Forest Service would require and ensure mitigation, subject to valid existing rights and federal regulations governing the authorization, that provides a net conservation gain (net benefit) to the species.

As defined in the Glossary, the Forest Service applies mitigation in a hierarchical manner: first seeking to avoid, then minimize, then use compensatory mitigation, if any is necessary, to address residual impacts from anthropogenic disturbances. Application of the mitigation hierarchy and the development of compensatory mitigation would be done in close coordination with the project proponent, cooperating agencies (e.g., Nevada Department of Wildlife (NDOW), State of Nevada Sagebrush Ecosystem Technical Team (SETT), and local governments) and interested stakeholders in a transparent manner, based on the best available science and standardized metrics.

It is noted that the State of Nevada, in response to the Nevada Executive Order (NV EO) 2018-32, is in the process of developing regulations that would require mitigation of certain anthropogenic disturbances in PHMA, GHMA, and other habitat management areas (OHMA). The regulations would address mitigation of residual direct or indirect impacts when the anthropogenic disturbance is subject to state or federal review, approval, or authorization, as ordered by NV EO 2018-32.

The strategy contained in this appendix is considered other plan content and may be changed with administrative changes (36 CFR 219.13(c)).

MITIGATION PRINCIPLES AND GUIDANCE

The Forest Service would apply the following mitigation principles using the mitigation hierarchy when evaluating third-party actions that result in residual impacts on greater sage-grouse or their habitat within PHMA and GHMA. Efforts to avoid and minimize should be documented before moving forward with compensatory mitigation.

Avoidance

- Eliminate conflicts by relocating disturbances outside of greater sage-grouse habitat. Avoidance of greater sage-grouse habitat when initiating an activity that will cause disturbance is the preferred option. If impacts are not avoided in PHMA and GHMA, the adverse effects would need to be both minimized and compensated for with compensatory mitigation.

Minimization

- Impacts should be minimized by modifying proposed actions or incorporating measures that lessen the adverse effects on greater sage-grouse and its habitat.
 - Minimization would be accomplished through project-level, site-specific application of actions (e.g., design features and best management practices), such as reducing the disturbance footprint, seasonal use limitations, and co-location of structures.
 - Minimization would not preclude the need for compensatory mitigation, but could effectively reduce the severity of impacts and the degree to which compensatory mitigation was needed to offset those impacts.

Compensation (also referred to as compensatory mitigation)

- When impacts on greater sage-grouse and its habitat remain in PHMA or GHMA after avoidance and minimization, compensatory mitigation would be considered with the applicant subject to the federal regulations governing the authorization and valid existing rights.
- Compensatory mitigation actions would be developed and implemented commensurate with the impacts of the proposed project such that net conservation gain is achieved through replacement or enhancement of greater sage-grouse habitat quality and quantity, as measured using consistent metrics for impacts and mitigation actions, such as those described in the State of Nevada's Habitat Quantification Tool (HQT). Any compensatory mitigation would be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.

Impact and Compensatory Mitigation Project Valuation Guidance

- A common, standardized method, such as the HQT would be used for quantifying the impacts of a proposed project and any pursuant compensatory mitigation projects (see GRSG-GEN-MA-008-Management Approach).

Compensatory Mitigation Options

- Options for implementing compensatory mitigation may include:
 - Using the State of Nevada Conservation Credit System (CCS) or an established mitigation/conservation bank.
 - Contributing to an established mitigation/conservation fund that can demonstrate how funds would be used to achieve net conservation gain.
 - Authorized user- (proponent-) conducted mitigation projects that demonstrate net conservation gain.
- For any compensatory mitigation project, the investment must be additional (i.e., additionality means the conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project).

ADAPTIVE MANAGEMENT PLAN FOR NEVADA

MANAGEMENT APPROACH

INTRODUCTION

Adaptive management is a process that promotes flexible resource-management decision-making that can be adjusted as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust resource management direction as part of an iterative learning process. Adaptive management 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. Inclusion of an adaptive management plan to complement the desired conditions, objectives, standards, guidelines, and management approaches in the proposed action is intended to increase the likelihood that conservation measures are effective in reducing threats to greater sage-grouse and its habitat and to lead to more effective decisions and enhanced benefits.

This adaptive management strategy consists of the following elements (Figure D-1):

1. Scale at which the Forest Service and partners will monitor and apply adaptive management in Nevada;
2. Population and habitat analyses with warnings, soft triggers, and hard triggers that represent thresholds for habitat and population decline; and
3. A process for interpreting, responding to, and monitoring population and habitat triggers.

This adaptive management strategy calls for a collaborative effort that would result in individual plans for the recovery of declining greater sage-grouse populations. The adaptive management habitat analysis will be led by a statewide technical team of specialists representing federal, state, and local agencies. This team would recommend specific habitat restoration efforts targeted at multiple spatial scales. These plans would be focused based on discussion of how threats impact greater sage-grouse and its habitat, and the relative importance of various conservation measures. The outcomes would be used to assist local efforts in identifying and prioritizing areas to enable efficiencies and pool resources. This would increase the likelihood that greater sage-grouse population and habitat declines can be addressed effectively through collaboration, stewardship, and conservation. The principles of adaptive management would be incorporated into the conservation measures that lessen threats to greater sage-grouse and its habitat. This strategy is considered other plan content and may be changed with administrative changes (36 CFR 219.13(c)).

ADAPTIVE MANAGEMENT ANALYSIS SCALES

The scales used to analyze population triggers and apply management responses are at the individual lek, lek cluster, and biologically significant units (BSU) as defined below (Figure D-2). Adaptive management responses would only apply to habitat management areas (HMAs), which includes Priority, General and Other HMAs within these scales. Habitat adaptive management warnings and triggers would be analyzed only at the lek cluster scale. The boundaries of the BSU and lek clusters may be adjusted over time, based on the understanding of local greater sage-grouse population interactions, genetic sampling and climate variation. Population and habitat analysis used to identify warnings and triggers may be updated based on new science and advances in technology (e.g., integrated population

models).

The hierarchy of greater sage-grouse population and habitat scales is as follows:

- Lek—Individual breeding display site where male and female greater sage-grouse congregate, with males performing courtship displays to gain mating opportunities with females. The Nevada Department of Wildlife (NDOW) maintains the official Nevada lek database.
- Lek cluster— A group of leks in the same vicinity, among which greater sage-grouse may interchange over time and representing a group of closely related individuals. A lek cluster boundary is defined by minimal greater sage-grouse movement between clusters, so demographic rates are influenced by birth/death rates rather than immigration/emigration. Lek clusters are defined by the USGS (Coates et al. 2017).
- BSU—Represents nested lek clusters with similar climate and vegetation conditions. A BSU boundary is defined by similar environmental conditions where greater sage-grouse population dynamics are likely driven by larger scale variations (e.g., climate). BSUs are defined by the USGS (Coates et al. 2017) and are also used for anthropogenic disturbance calculations.

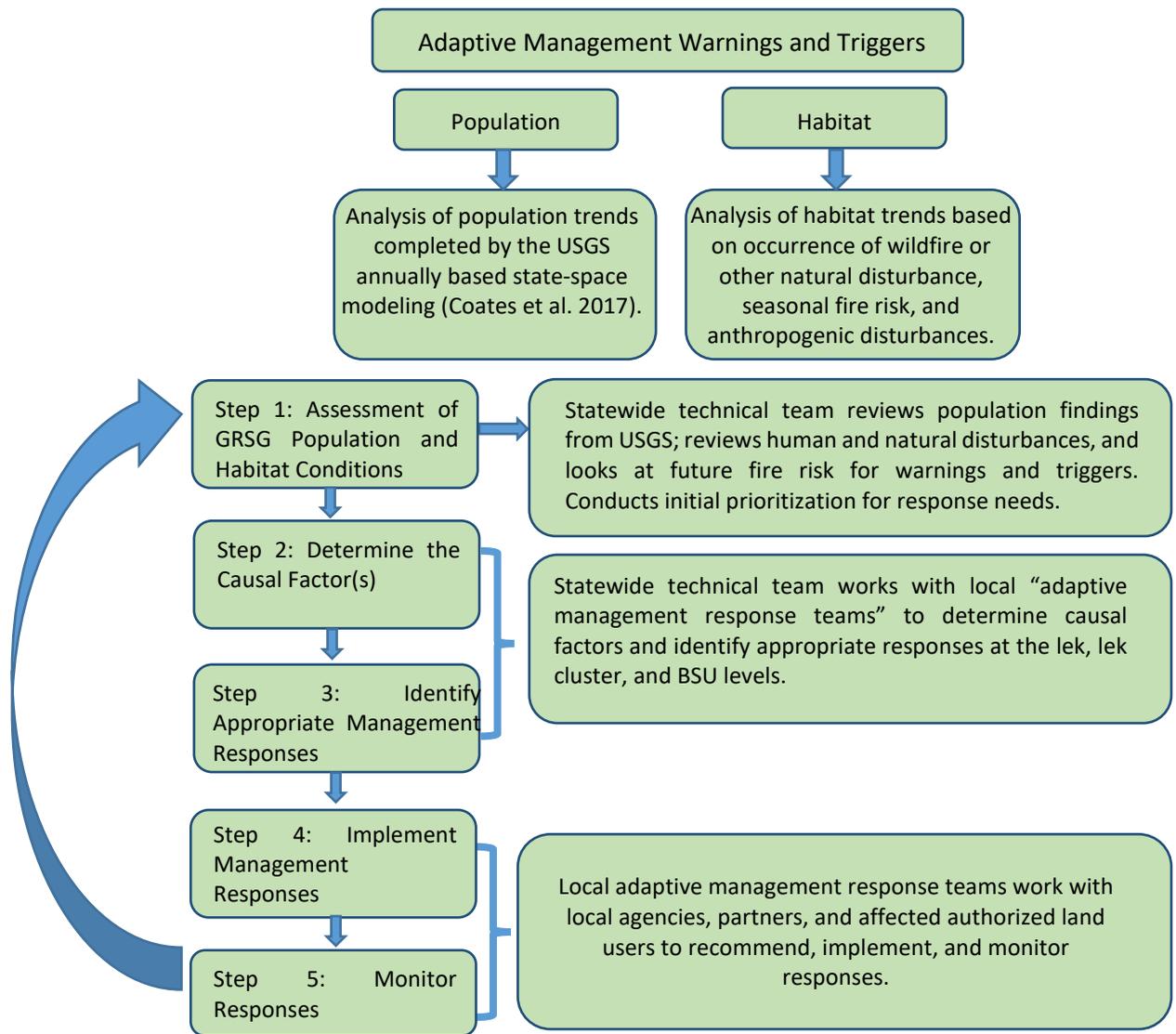


Figure D-1. Flowchart of the adaptive management process for Nevada.

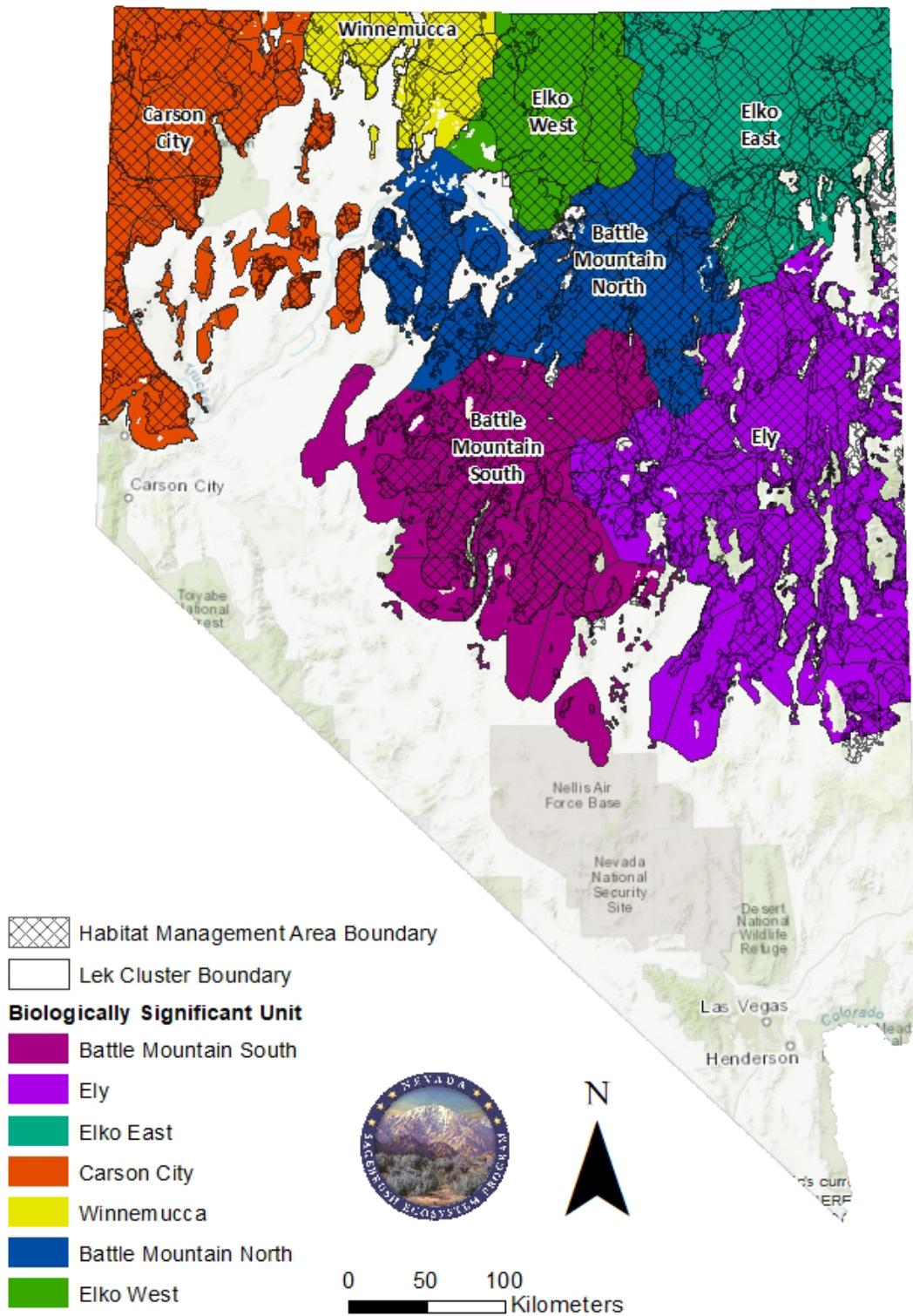


Figure D-2. Biologically significant units and lek clusters for greater sage-grouse in Nevada.

ADAPTIVE MANAGEMENT POPULATION ANALYSIS

Each year, the USGS greater sage-grouse State-Space model (Coates et al. 2017⁴) will be used to estimate the rate of greater sage-grouse population change (λ) at the individual lek, lek cluster, and BSU scales. The USGS State-Space model uses lek count data provided by NDOW to inform annual trends, accounts for potential variability in observations during lek counts and for natural variations in populations, and integrates information from the three scales to discern if population performance is likely due to localized events or connected to larger scale environmental or climatic conditions. A trigger is less likely to be reached at smaller spatial scales (e.g., lek, lek cluster) if regional environmental (e.g., BSU) conditions are influencing population decline (Figure D-3).

The rate at which a population trend destabilizes (population decline) and decouples from the trend at the associated higher-order scale will dictate whether or not a soft or hard trigger is reached. USGS will provide notice to the statewide technical team of any population warnings, soft triggers, or hard triggers that are reached on an annual basis.

Population Warnings

Population warnings⁵ represent precursors to triggers that are the result of cumulative factors that negatively affect population growth rate. A warning could be seen when population rate of change (λ) within any of the three analyzed spatial scales is below an established threshold as defined in Coates et al. (2017). A population that is destabilized and decoupled is also considered a warning at that spatial scale. Multiple annual warnings are required to reach a soft or hard population trigger.

Population Soft Triggers

Soft triggers represent a threshold of population decline that indicates that management actions should be considered at the project or implementation level to address greater sage-grouse population declines. Specific thresholds for λ values are included in Coates et al. 2017.

Population Hard Triggers

Hard triggers represent a threshold of population decline that indicates that immediate action needs to be considered to address significant deviation from greater sage-grouse population declines. Specific thresholds for λ values are included in Coates et al. 2017.

⁴ The methods to determine population triggers and the specific quantitative soft and hard triggers for the lek, lek cluster, and BSU spatial scales are identified in the USGS State-Space model *Hierarchical population monitoring of greater sage-grouse (Centrocercus urophasianus) in Nevada and California—Identifying populations for management at the appropriate spatial scale*: U.S. Geological Survey Open-File Report 2017-1089.

⁵ The USGS analysis uses the term “signals” which is synonymous with “triggers.”

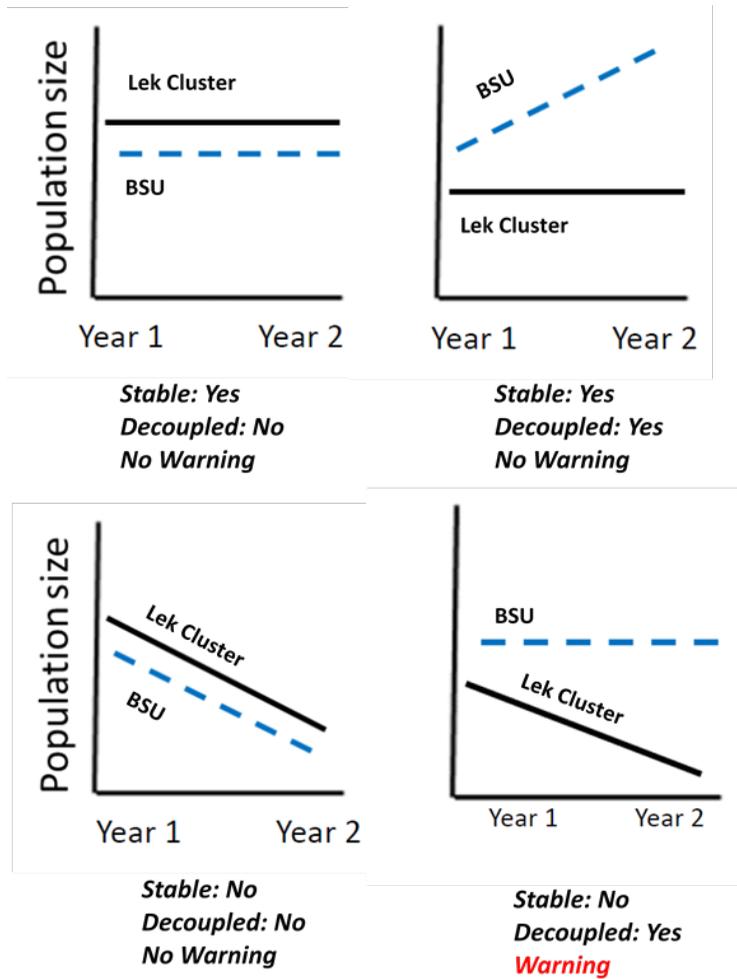


Figure D-3. Scenarios depicting population stability (trend) and decoupling from the higher-order spatial scales (Coates et al. 2017).

ADAPTIVE MANAGEMENT HABITAT ANALYSIS

The adaptive management habitat analysis will be led by a statewide technical team of specialists representing federal, state, and local agencies. This team will convene annually following completion of the population analysis, and may meet more frequently if needed.

Habitat Warnings

Habitat warnings include fire risk, the occurrence of wildfires larger than 1,000 acres, other natural disturbances, and new anthropogenic disturbance that results in direct and indirect effects as determined using the State of Nevada’s Habitat Quantification Tool (HQT). These warnings will be evaluated within HMAs at the scale of the lek cluster. Fire risk will be analyzed using various applicable data sources and support tools including but not limited to current vegetation composition and biomass, precipitation, fire regime condition class, fire risk or predictive models, and other applicable resources to identify areas that have the potential for high fine or woody fuel loads or have a high probability for re-burning. Natural disturbances evaluated as warnings will focus on wildfires and other natural disturbances that affect 1,000 acres or more in Nevada. The statewide technical team will generate the full list of habitat warnings

for the year, complete a preliminary assessment of ecological impact and magnitude, and draft a priority list of warnings that may warrant a management response. Generally, a management response will be warranted if an action could be taken that could effectively improve conditions for greater sage-grouse.

Habitat Triggers

Within a lek cluster, habitat warnings that warrant a significant greater sage-grouse focused management response will be considered triggers and prioritized based on best available science, site-specific conditions (context), and ecological criteria (e.g., ecological site description, current state, resistance and resilience, state and transition models, disturbance response group, cheatgrass dominance, etc.).

CAUSAL FACTOR ANALYSIS AND MANAGEMENT RESPONSE PROCESS

Step 1-Assessment of Greater Sage-grouse Population and Habitat Conditions: The statewide technical team will meet semi-annually to evaluate population data using the results of the USGS greater sage-grouse State-Space model (Coates et al. 2017), habitat disturbance data from the land and resource management agencies, and fire risk data to identify warnings and triggers.

Step 2-Determine the Causal Factor(s): Following Step 1, the statewide technical team will work with other local agency representatives to form an adaptive management response team. This team will determine causal factors related to population and habitat triggers at each analysis scale:

- Lek (population only): Causal factors will be considered within greater sage-grouse seasonal habitats associated with the lek. At a minimum, seasonal habitats within four miles of the lek will be considered.
- Lek cluster: Causal factors will be considered within greater sage-grouse seasonal habitats associated with the lek cluster.
- BSU (population only): Causal factors will be considered within greater sage-grouse seasonal habitats associated with the BSU.

Causal factors may include natural or human caused disturbances, changes in human or animal use patterns, and climatic influences, among many other possibilities. Adaptive management response teams would consider all available information to examine potential causal factor(s) and will ask questions such as: What natural and human-caused events have occurred within the causal factor analysis area? What additional greater sage-grouse threats exist in the area? Did factors and events outside the triggered scale contribute to the population or habitat decline? Did the event or outcome arise from the interaction of more than one potential causal factor(s)? Adaptive management response teams will document their findings in a report to the statewide technical team.

Step 3-Identify Appropriate Management Responses: The adaptive management response teams will identify appropriate management responses for each trigger and will document them in a report provided to the statewide technical team. Both proactive and reactive management responses may be included to address existing or anticipated threats in areas where warnings or triggers have been reached. The adaptive management response teams may also identify an emergency/contingency plan that would outline immediate management actions that would take place, in the event the trigger is exacerbated. Such a plan should include goals, objectives, management actions and monitoring requirements developed specifically for the appropriate geographic area and/or population being affected.

In the case of proactive responses to fire risk, short term management may include season-specific fuels reduction, and long-term management may include prioritizing areas for fuel breaks and vegetation treatments. Reactive management responses may include emergency closures, re-prioritizing vegetation treatments for implementation, or repositioning fire resources. Many potential management responses may already be included as plan components in the proposed action and could be investigated to ensure they are being implemented or are working properly. Some potential management responses may be available for implementation immediately where National Environmental Policy Act (NEPA) analysis and decision-making are already complete. In many cases, a NEPA analysis will need to be initiated and completed before the action would occur.

Step 4-Implement Management Responses: Decision-makers from the appropriate land management agency may decide to implement the recommended management responses in coordination with the adaptive management response team within the affected response area or at the scale in which the trigger was reached. If a population hard trigger or a habitat trigger is reached, a much more aggressive management response may be anticipated. The federal land management agency local offices may implement the site specific actions outlined in the emergency/contingency response plan.

Step 5-Monitor Responses: The appropriate land management agency in coordination with the adaptive management response teams may continue to monitor the lek(s), lek cluster(s) and/or BSU(s) or affected area in which a recommended management response is being applied to determine if the responses are adequately addressing the reason for the population and/or habitat decline. This information would be used in Step 1 above, “Assessment of Greater Sage-grouse Population and Habitat Conditions” the following year.

MONITORING MANAGEMENT RESPONSES

The appropriate land management agency will work with the statewide technical team to develop criteria that will be used to evaluate whether a lek (populations only), lek cluster, and/or BSU (populations only) that reached a trigger has recovered sufficiently or is trending in a positive direction. Longevity of a management response should be appropriate and apply to the type of management action being implemented.

The process for evaluating population and habitat management responses may include, but is not limited to: identification of upward population trends, based on an annual analysis of the greater sage-grouse State-Space model; response of vegetation community and habitat following fire or other disturbance (including habitat trending towards desired conditions); and evaluation of habitat or population response based on an adaptive management process to determine what management actions are successful, what actions are unlikely to be successful and should be discontinued, what objectives should be modified to better reflect an achievable goal, and what actions should be changed to achieve the desired outcome. Habitat triggers that had insufficient funds and resources available to implement projects will remain on the habitat trigger list and could be re-prioritized in the next annual evaluation by the statewide technical team. The team will also review the trigger list annually and determine whether a habitat trigger remains on the list or should be removed; if inadequate funding or other resources are continually not available to implement appropriate management responses for habitat triggers, the State of Nevada’s Sagebrush Ecosystem Council will support efforts to request additional resources.

DISTURBANCE CAP GUIDANCE MANAGEMENT APPROACH

This Land Management Plan (LMP) Amendment incorporates a 3% cap for anthropogenic disturbances in priority habitat management areas (PHMA). The disturbance cap applies to discretionary activities that result in anthropogenic disturbance in PHMA at the Biologically Significant Unit (BSU) (Figure D-2) and the project area scale. It must be determined whether proposed discretionary activities will exceed the cap on anthropogenic disturbances before a new project can be authorized. Discretionary activities would normally not be permitted if the 3% cap has been exceeded, unless a net conservation gain can be demonstrated.

For the BSUs, west-wide habitat degradation (disturbance) data layers will be used at a minimum to calculate the amount of disturbance and to determine if the disturbance cap has been exceeded. Locally collected disturbance data may be used to determine if the disturbance cap has been exceeded for project authorizations, and they may also be used to calculate the amount of disturbance in the BSUs. For actions that are non-discretionary, there is no requirement to calculate the project area scale disturbance. The project footprint would, however, be counted within the project area scale analysis of a discretionary disturbance in the same location proposed at a later date.

This disturbance cap guidance is considered other plan content and may be changed with administrative changes (36 CFR 219.13(c)).

Formulas for calculations of the amount of disturbance in the PHMA in a BSU and or in a proposed project area are as follows:

For the BSUs: Anthropogenic disturbances at the BSU scale are: *Oil/Gas Wells and Development Facilities, Coal Mines, Wind Towers, Solar Fields, Geothermal Development Facilities, Mining, Roads, Railroads, Power lines, Communication Towers, Other Vertical Structures, and Other Developed Rights of Ways.*

% Disturbance = (combined acres of the 12 disturbance types (above)) ÷ (acres of all lands within the PHMAs in a BSU) x 100.

For the Project Area Scale: Additional disturbances that are also considered at the project area scale are: *Coal Bed Methane Ponds, Meteorological Towers, Nuclear Energy Facilities, Airport Facilities, Military Range Facilities, Hydroelectric Plants, and Recreation Areas and Facilities (> 0.25 acres).*

% Disturbance = (combined acres of the 12 disturbance types plus the 7 project area scale disturbance types (above)) ÷ (acres of all lands within the PHMA in the project area) x 100.

The denominator in the disturbance calculation formula consists of all acres of lands classified as PHMA within the analysis area (BSU or project area). Areas that are non-habitat, or are not currently supporting sagebrush cover (e.g., due to wildfire), are not excluded from the acres of PHMA in the denominator of the formula. Information regarding sage-grouse seasonal habitats, sagebrush availability, and areas with the potential to support sage-grouse populations will be considered along with other local conditions that may affect sage-grouse during the analysis of the proposed project area.

Project Analysis Area Method for Calculating Anthropogenic Disturbance Activities at the Project Area Scale

1. Create a 4 mile buffer around the digitized proposed project footprint if it falls in or partially in PHMA (see Table D-5, for buffer sizes).
2. Identify any active or pending leks that fall within the 4 mile project buffer.
3. Create a 4 mile buffer around each active or pending lek that falls within the project buffer. If there are no leks within the project buffer, the analysis area is the spatial intersection of the proposed project buffer and PHMA.
4. Merge the intersection of the project buffer, lek buffers, and mapped PHMA. The intersection of the layers is the Anthropogenic Disturbance Project Area for calculating the percent of area disturbed by Anthropogenic Disturbances.
5. In the Anthropogenic Disturbance Project Area, check for accuracy of disturbance layers using site visit and/or imagery. Correct or add anthropogenic disturbance footprints (using imagery or other appropriate data sources) as needed. Consider, at a minimum, the direct area of influence buffers identified in Table D-5 when digitizing. Digitize all existing anthropogenic disturbances that are considered threats to greater sage-grouse. Using one-meter resolution NAIP imagery is recommended. Use existing local data if available.
6. The disturbance cap calculation will be used to inform a decision regarding the proposed project. When a project scale analysis extends into BLM lands, the state BLM office will be contacted to ensure that there is continuity in mapping and disturbance calculations.

Table D-5. Anthropogenic disturbance types for disturbance calculations.

Disturbance Type	Specific Activity	Feature Buffer Radius
Oil and Gas		
	Wells	263 feet (5.0 ac buffer)
	Power Plants	263 feet (5.0 ac buffer)
Coal		
	Mines	Digitized Polygon Area
	Power Plants	Digitized Polygon Area
	Coal Bed Methane Ponds	Digitized Polygon Area
Wind		
	Wind Turbines	204 feet (3.0 ac buffer)
	Power plants	204 feet (3.0 ac buffer)
Solar		
	Fields/Power Plants	316 feet (7.2 ac buffer)
Geothermal		
	Wells	204 feet (3.0 ac buffer)
	Power plants	Digitized Polygon Area
Mining		
	Locatable Developments	Digitized Polygon Area
Roads		
	Surface Streets*	40.7 feet
	Major Roads	84.0 feet
	Interstate Highways	240.2 feet
Railroads		
	Active Lines	30.8 feet
Powerlines		
	1-199 kV	100 feet
	200-399 kV	150 feet
	400-699 kV	200 feet
	700+ kV	250 feet
Communication		
	Towers	186 feet (2.5 ac buffer)
	Meteorological towers	186 feet (2.5 ac buffer)
Facilities		
	Nuclear Energy Facilities	Digitized Polygon Area
	Airport Facilities	Digitized Polygon Area
	Military Range Facilities	Digitized Polygon Area
	Hydroelectric Plants	Digitized Polygon Area
	Recreation Areas and Facilities (>0.25 acres)	Digitized Polygon Area

*Includes graded gravel roads and those more improved, not dirt and two-track roads or trails

MONITORING STRATEGY MANAGEMENT APPROACH

Actions, authorizations, and implementation of projects in compliance with this Land Management Plan (LMP) Amendment will be monitored consistently across all planning units and will be reported to the Forest Service Region 4 Office annually, with a summary report every five years, for the planning area.

The report will be based on current databases and information available at the time of writing, and some figures may be revised in later years as more complete information is compiled.

Major items for monitoring during the implementation of the LMP Amendment

A. Implementation (Decision) Monitoring.

Measure: Number of authorizations (NEPA decisions) and associated conditions or restrictions (e.g., efforts to avoid, minimize, or implement compensatory mitigation) in priority and general habitat management areas.

B. Habitat Monitoring.

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Energy and Mining Density (facilities and locations per unit area)

C. Population (Demographics) Monitoring.

D. Effectiveness Monitoring

Effectiveness Monitoring identifies various land agency contributions to habitat loss and calculates the trend of the above metrics over time by posing a series of additional questions:

1. Sagebrush Availability and Condition:

- a) Measure: Amount of sagebrush availability (existing vegetation) and the change in the amount and condition of sagebrush
- b) Measure: Existing amount of sagebrush on the landscape and the change in the amount relative to the pre-Euro-American historical, and potential, distribution of sagebrush (Biophysical potential).
- c) Measure: Trend and condition of the indicators describing sagebrush characteristics important to sage-grouse

2. Habitat Degradation and Intensity of Activities:

- a) Measure: Amount of habitat degradation and the change in that amount
- b) Measure: The intensity of activities and the change in the intensity
- c) Measure: the amount of reclaimed energy-related degradation and the change in the amount

3. Measure: the population estimation of sage-grouse and the change in the population estimation?

4. Measure: Forest Service contributions to changes in the amount of sagebrush
5. Measure: Forest Service contributions to habitat disturbance
6. Is the Amendment effective?
 - a) Measure: movement toward, away, or neutral to sage-grouse desired conditions
 - b) Measure: Disturbances within sage-grouse areas relative to objectives (e.g., caps)
 - c) Measure: Are sage-grouse populations within the plan boundary increasing, stable, or declining?

To satisfy these monitoring requirements, Region 4, in collaboration with Regions 2 and 1, will collect required information from various sources, with particularly close cooperation with the BLM and state wildlife agencies.

APPENDIX E - UTAH

DESIRED CONDITION TABLES

Table E-1. Utah - Seasonal habitat desired conditions for greater sage-grouse at the landscape scale.

ATTRIBUTE	INDICATORS	DESIRED CONDITION
Breeding and Nesting^{1,2,3,4,5} (March 1 to June 15) Apply 3 miles from active leks¹⁴		
Lek Security	Proximity to conifers	Conifers are absent or uncommon on shrub/grassland ecological sites within 1.8 miles (approx. 3 kilometers) of occupied leks. ^{6,7,8}
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover within 328 feet of a lek. ⁶
Cover	% of seasonal habitat meeting desired conditions ⁸	>80% of the mapped breeding and nesting habitat meets the recommended vegetation characteristics.
	Sagebrush canopy cover ^{6,8,9}	High elevation: ≥ 17% Low elevation: ≥ 7% Parker: ≥ 18%
	Total shrub cover ^{6,7,8,9}	High Elevation: ≥ 19% Low elevation: ≥ 17% Parker: ≥ 22%
	Sagebrush Composition ⁹	High elevation: ≥ 83% Low elevation: ≥ 36% Parker: ≥ 71%
	Shrub height ^{6,8,9}	High elevation: ≥ 23 cm Low elevation: ≥ 30 cm Parker: ≥ 15 cm
	Predominant sagebrush shape ⁶	>50% in spreading ¹¹
	Perennial grass canopy cover ^{6,8,9,10}	High elevation: ≥ 8% Low elevation: ≥ 5% Parker: ≥ 4%
	Perennial grass height ^{6,7,8}	Provide overhead and lateral concealment from predators ^{8,13} Defer to local data whenever possible to help determine proper height.
Perennial forb canopy cover ^{6,8,9,12}	High elevation: ≥ 4% Low elevation: ≥ 2% Parker: ≥ 1%	
Brood-Rearing/Summer (June 16 to October 31)¹		
Cover	% of Seasonal habitat meeting desired condition	>40% of the mapped brood-rearing/summer habitat meets recommended habitat characteristics where appropriate. (Relative to site potential, etc.). ⁸
	Sagebrush canopy cover ^{6,8,9}	High elevation: ≥ 17% Low elevation: ≥ 4% Parker: ≥ 16%
	Total shrub cover ^{6,8,9}	High elevation: ≥ 17% Low elevation: ≥ 10% Parker: ≥ 19%
	Sagebrush Composition ⁹	High elevation: ≥ 77% Low elevation: ≥ 28% Parker: ≥ 77%

	Shrub height ^{6,8,9}	High elevation: ≥ 20 cm Low elevation: ≥ 26 cm Parker: ≥ 11 cm
	Perennial grass cover ⁹	High elevation: ≥ 8% Low elevation: ≥ 5% Parker: ≥ 6%
	Perennial forb cover ⁹	High elevation: ≥ 6% Low elevation: ≥ 2% Parker: ≥ 2%
	Riparian areas/mesic meadows	Proper Functioning Condition ^{12, 15}
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present ^{6, 12}
Winter (November 1 to February 28)¹		
Cover and Food	% of seasonal habitat meeting desired conditions	>80% of the mapped wintering habitat meets winter habitat characteristics where appropriate (relative to site potential, etc.). ^{6,8,9}
	Sagebrush canopy cover above snow ^{6,8,14}	>10%
	Sagebrush height above snow ^{6, 7,8,13}	High elevation: ≥ 23 cm Low elevation: ≥ 14 cm Parker: NA

Table E-1. Footnotes

¹ Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the local unit cannot lengthen or shorten the number of days.

² Utah Greater Sage-Grouse Working Group 2013

³ Doherty 2008

⁴ Doherty et al. 2010

⁵ Holloran and Anderson. 2005

⁶ Stiver et al. 2015

⁷ Baruch-Mordo et al. 2013.

⁸ Connelly et al. 2000

⁹ Dahlgren et al. (In Review)

¹⁰ Smith et al. 2018

¹¹ Stiver et al. 2015

¹² Preferred forbs are listed in Stiver et al. 2015 (Table B-1). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

¹³ The height of sagebrush remaining above the snow depends upon snow depth in a particular year. Intent is to manage for tall, healthy sagebrush stand.

¹⁴ Manier et al. 2014

¹⁵ Prichard et al. 2003, Dickard et al. 2015

Table E-2. Utah - Treatment acres per decade.¹

FOREST	MECHANICAL²	ACRES PRESCRIBED FIRE³	GRASS RESTORATION⁴
Ashley	10,000	0	2,000
Dixie	13,000	1,000	7,000
Fishlake	7,000	0	1,000
Manti-La Sal	3,000	0	4,000
Uinta-Wasatch-Cache	9,000	0	0

¹These are estimates of treatments required to achieve and/or maintain desired habitat conditions over a period of 10 years. There are many dynamic and highly variable disturbances that may happen over that period of time that could have a significant effect on the amount, type, and timing of treatment needed. Those disturbances are factored into the 10-year simulation using stochastic, not deterministic, techniques. Probabilities of events such as large wildfires are used in the model to make the simulation as realistic as possible, given empirical data about such events in the past, but the results of the simulation cannot be used to predict the future occurrence of such events, including their timing, size, or location, which are essentially random.

²Removal of conifers that have invaded sagebrush including phase 1 juniper that is 10% or less and reducing sagebrush cover in areas over 30% canopy cover

³Acres are those that are greater than 30% sagebrush canopy cover and/or invaded by 10% or greater conifer.

⁴Acres presently dominated by annual grasses that could be improved by herbicide application and seeding of perennial vegetation

UTAH MITIGATION STRATEGY MANAGEMENT APPROACH

General

The Forest Service may, in accordance with relevant plan components and in alignment with state-based compensatory mitigation efforts, require mitigation that provides no net loss to the greater sage-grouse when undertaking Forest Service management actions or authorizing third party actions that result in greater sage-grouse habitat loss and degradation, consistent with valid existing rights and applicable law.

The Forest Service will incorporate elements of The Planning Rule at 36 CFR 219.7(e)(1), which discusses required plan components, including: the intent of (iii) Standards “...to avoid or mitigate undesirable effects...” and (iv) Guidelines to “...to avoid or mitigate undesirable effects...” The greater sage-grouse is also a potential species of conservation concern, so the Forest Service will also follow the Forest Service Handbook FSH 1099.12, 23.13 (c) 5 (c) (2) and work “...towards an all-lands approach to species conservation with other land managers across the range of the species, including efforts to mitigate threats or stressors and to provide ecological conditions that would support the species.” Mitigation will follow the *mitigation hierarchy* from the White House Council on Environmental Quality’s (CEQ’s) NEPA regulations at 40 CFR 1508.20 which explain that mitigation first involves avoiding environmental impacts when possible, then minimizing impacts, and then compensating for residual impacts by applying beneficial mitigation actions.

If Forest Service management actions and authorized third party actions result in habitat loss and degradation that would otherwise not be allowed, even after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation may be used to provide no net habitat loss to the greater sage-grouse. Mitigation actions ought to account for any uncertainty associated with the effectiveness of such mitigation, be durable, timely, and in response to the residual impacts and in addition to other mitigation efforts.

Process and Coordination

Before authorizing third-party actions that result in habitat loss and degradation in accordance with applicable standards and guidelines, the deciding official may consider the following steps:

- 1) Notify the appropriate State of Utah agency to determine if the State of Utah requires or recommends any additional mitigation – including compensatory mitigation – under State regulations, policies, or programs related to the conservation of greater sage-grouse;
- 2) Recommend to the project proponent that it coordinate with the appropriate State of Utah agency to ensure it considers and complies with all applicable State requirements or recommendations relating to its proposal;
- 3) Consider the State’s recommendations and incorporate that mitigation into the NEPA and decision-making process;

4) Ensure mitigation outcomes are consistent with the State of Utah’s mitigation strategy and principles outlined in the State’s Conservation Plan for Greater Sage-Grouse, including, but not limited to:

- a) Create, restoring and/or protecting functional habitat or habitat corridors to offset the impacts of unavoidable disturbance to greater sage-grouse habitat (i.e., incorporating the concept of additivity in mitigation),
- b) In most cases, compensatory mitigation projects ought to be completed before the project triggering mitigation occurs,
- c) Compensatory mitigation projects may account for the risk that the mitigation may fail or not persist for the full duration of the project it is intended to offset,
- d) Compensatory mitigation projects ought to provide habitat that is in place for at least the duration of the project it is intended to offset.

Project-specific analysis will be necessary to determine how a compensatory mitigation proposal addresses impacts from a proposed action. The FS may cooperate with the State to determine appropriate project design and alignment with State policies and requirements, including those regarding compensatory mitigation.

UTAH ADAPTIVE MANAGEMENT MANAGEMENT APPROACH

Adaptive management is a decision process that promotes flexible resource management decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps with adjusting resource management directions as part of an iterative management process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a “trial and error” process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits.

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

Because the greater sage-grouse remains a state-managed species, biological information that informs adaptive management is collected and analyzed by the state of Utah. Responses by the state, BLM, and Forest Service are dependent up on state-based monitoring information and interagency cooperation.

SPATIAL SCALE

Greater sage-grouse biologists within a multi-agency adaptive management working group (e.g., from the BLM, FS, and the state), will assess population and habitat adaptive management triggers at project and Biologically Significant Unit (BSU) scales. A BSU is a geographical/spatial area that contains the relevant habitats that are used by greater sage-grouse. In Utah, the FS is applying adaptive management monitoring and management to the total PHMA area associated with a greater sage-grouse population are but FS decisions, per FS authority, only apply on FS system lands and not BLM or state lands. These areas generally align with habitat areas within the State of Utah’s Sage-Grouse Management Areas (SGMAs). The following areas will be monitored and evaluated for population and habitat adaptive management triggers: Box Elder, Rich, Uinta, Strawberry, Carbon, Emery, Parker, Panguitch, Bald Hills, Hamlin, Sheeprocks, and Ibapah. These areas generally represent population use areas within the sub-region.

ADAPTIVE MANAGEMENT TRIGGERS

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

Soft triggers represent an intermediate threshold indicating that management changes are needed to address habitat or population losses before they become severe. Hard triggers represent a threshold indicating that more direct and refined actions are quickly needed to stop a severe deviation from Greater sage-grouse conservation objectives.

Population Triggers

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

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

Trend leks are either leks that have been surveyed consistently in the last 20 years or leks that provide spatial representation within PHMA. Twenty years was chosen as the appropriate time period to identify trend leks with consideration of the cyclic nature of greater sage-grouse populations, and to capture monitoring results during the period of time when lek counts were conducted more consistently, and when lek count protocol was more standardized. The Utah Greater Sage-Grouse lek counts appear to have been in a low oscillation in the mid-1990s and again in the last few years (2011). During this same time period, standard lek count protocol use was increasing. Criteria for the trend leks are below:

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

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

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

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

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

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

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

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

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

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

Population Soft Triggers

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

- 1a) 4 consecutive years of 10 percent or greater annual decline in average males per lek in each year, based on “trend leks”; OR
- 1b) 6 consecutive years of declining average males per lek in each year, based on “trend leks”; OR
- 1c) 40 percent or greater decline in average males per lek in any single year, based on “trend leks”; OR
- 1d) 50 percent or greater decline in average males per lek in a 4 consecutive year period, based on “trend leks”; AND
- 2) λ of less than 1 in 4 consecutive years, based on all leks in the PHMA. Using criteria 1c, the 40 percent decline in a single year may occur at any point of the four year λ monitoring window (year one, two, three or four).

Population Hard Triggers

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

Short-term Decline

- a) 4 consecutive years of 20 percent or greater annual decline in average males per lek in each year, based on “trend leks”; OR
- b) average males per lek, based on trend leks, drops 75 percent below the 10-year rolling average males per lek in any single year (not a 75 percent decrease, but a decline under 75 percent of the 10-year rolling average); OR

Long-term Decline

- c) λ of less than 1 in 6 consecutive years, based on all leks within the PHMA; OR
- d) λ of less than 1 in 8 years of a 10-year window, based on all leks within the PHMA.

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

Habitat Triggers

The adaptive management approach also includes triggers based on greater sage-grouse habitat. Habitat quality is addressed by adherence to the objectives contained in the plan amendment. The adaptive

management triggers for habitat is based on the availability of habitat within PHMA, measured using a percent of habitat loss from a baseline of available greater sage-grouse habitat at the signing of the final plan amendments.

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

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

Habitat Soft Triggers

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

- a) 10 percent loss of total greater sage-grouse habitat in PHMA; OR
- b) 10 percent loss of habitat within nesting areas in PHMA; OR
- c) 5 percent loss of habitat within UDWR mapped wintering areas in PHMA; OR
- d) any one fire that burns 5 percent of total greater sage-grouse habitat in PHMA.

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

Habitat Hard Triggers

- a) 20 percent loss of total greater sage-grouse habitat in PHMA; OR
- b) 20 percent loss of habitat within nesting areas in PHMA; OR
- c) 20 percent loss of habitat within UDWR mapped wintering areas in PHMA.

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

MANAGEMENT RESPONSE

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

observed change in resource condition, to the extent it can be determined. A causal factor may be associated with one of the threats the USFWS identified in its 2010 listing determination, though additional monitoring information and research may also identify other causes that could result in reaching population or habitat triggers. It is also important to note that while one or more factors may be associated with a habitat or population decline, directly attributing a change to a specific cause or causes may not be possible. If direct cause or causes cannot be identified, the change in management may need to address multiple threats that were identified in the area where the trigger was been met in order to alter a negative trend. Absence of a clear cause may not be justification to not take some action to reverse a trend.

Management Response to Meeting Soft Triggers

Upon an annual review of monitoring data, if it is apparent that soft trigger criteria have been met, the FS, in collaboration with the state and BLM, would determine if there is a specific cause or causes that are contributing to the decline.

If it is determined that the decline is related to a natural population variation, no specific management actions would be recommended. However, if FS management actions are determined to cause or contribute to the decline, the FS intends to work with the appropriate State of Utah agency and public land users to identify and apply management to slow down or stop the population decline.

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

- Extending seasonal restrictions for seasonal surface disturbing activities (in accordance with existing rights and sage-grouse plan content);
- Temporary area closures related to travel management;
- Applying additional restrictions on discretionary activities or reject the authorization if mitigation criteria cannot be met;

Management Response to Meeting Hard Triggers

Hard triggers represent a threshold indicating that more direct and refined actions are quickly needed to stop a severe deviation from greater sage-grouse conservation objectives. Upon documenting that a hard trigger has been met the FS intends to review available and pertinent data, in coordination with greater sage-grouse biologists from multiple agencies including BLM, UDWR, USFWS, and/or NRCS, to determine the causal factor(s) for the declines for the area where the trigger has been met.

Adaptive Management Responses

- If a hard trigger is tripped, areas within and adjacent to PHMA within a Population Area (BSU) would be the top priority for regional mitigation habitat restoration and fuels reduction treatments.
- If a soft trigger is tripped within PHMA within a Population Area (also referred to as a biologically significant unit (BSU)), the top priority for habitat improvement and restoration projects and for fuels reduction treatments.

DISTURBANCE CAP GUIDANCE MANAGEMENT APPROACH

DISTURBANCE CAP

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

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

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

The denominator in the disturbance calculation formula consists of all acres of lands classified as PHMA within the analysis area (BSU or project scale). Areas that are not GRSG seasonal habitats, or are not currently supporting sagebrush cover (e.g., due to wildfire), are not excluded from the acres of PHMA in the denominator of the formula. Information regarding GRSG seasonal habitats, sagebrush availability, and areas with the potential to support GRSG populations will be considered along with other local conditions that may affect GRSG during the analysis of the proposed project area.

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

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

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

DISTURBANCE FORMULAS

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

- For PHMA within a Population Area (BSUs):

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

- For the Project Analysis Area:

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

DENSITY CAP

This land use plan has also incorporated a cap on the density of energy and mining facilities at an average of 1 facility per 640 acres in PHMA in a project authorization area. If the disturbance density from energy or mining facilities in PHMA in a proposed project area is on average less than 1 facility per 640 acres, the analysis will proceed through the NEPA process incorporating mitigation measures into an alternative. If the disturbance density from energy or mining facilities is greater than an average of 1 facility per 640 acres, the proposed project will either be deferred (1) until the density of energy and mining facilities is less than the cap, or (2) the energy or mining facility is co-located into existing disturbed area (subject to applicable laws and regulations, such as the Mining Law of 1872, as amended, valid existing rights, etc.). However, the density cap may be exceeded if a project is located in non-habitat or otherwise excepted according to applicable standards and guidelines.

Table E-3. Facilities affected by the density calculation

Degradation Type	Specific Activity	Feature Buffer Radius
Oil and Gas		
	Wells	263 feet (5.0 ac buffer)
	Power Plants	263 feet (5.0 ac buffer)
Coal		
	Mines	Digitized Polygon Area
	Power Plants	Digitized Polygon Area
	Coal Bed Methane Ponds	Digitized Polygon Area
Wind		
	Wind Turbines	204 feet (3.0 ac buffer)
	Power plants	204 feet (3.0 ac buffer)
Solar		

Degradation Type	Specific Activity	Feature Buffer Radius
	Fields/Power Plants	316 (7.2 ac buffer)
Geothermal		
	Wells	204 feet (3.0 ac buffer)
	Power plants	Digitized Polygon Area
Mining		
	Locatable Developments	Digitized Polygon Area
Roads		
	Surface Streets*	40.7 ft
	Major Roads	84.0 ft
	Interstate Highways	240.2 ft
Railroads		
	Active Lines	30.8 ft
Powerlines		
	1-199 kV	100 ft
	200-399 kV	150 ft
	400-699 kV	200 ft
	700+ kV	250 ft
Communication		
	Towers	186 feet (2.5 ac buffer)
	Meteorological towers	186 feet (2.5 ac buffer)
Facilities		
	Nuclear Energy Facilities	Digitized Polygon Area
	Airport Facilities	Digitized Polygon Area
	Military Range Facilities	Digitized Polygon Area
	Hydroelectric Plants	Digitized Polygon Area
	Recreation Areas and Facilities (>0.25 acres)	Digitized Polygon Area

*Includes graded gravel roads and those more improved, not dirt and two-track roads or trails

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

1. Coalbed Methane Ponds
2. Meteorological Towers
3. Nuclear Energy Facilities
4. Airport Facilities and Infrastructure
5. Military Range Facilities & Infrastructure
6. Hydroelectric Plants
7. Recreation Areas Facilities and Infrastructure

Definitions:

1. Coalbed Methane and other Energy-related Retention Ponds – The footprint boundary will follow the fenceline and includes the area within the fenceline surrounding the impoundment. If the pond is not fenced, the impoundment itself is the footprint. Other infrastructure associated with the containment ponds (roads, well pads, etc.) will be captured in other disturbance categories.
2. Meteorological Towers – This feature includes long-term weather monitoring and temporary meteorological towers associated with short-term wind testing. The footprint boundary includes the area underneath the guy wires.

3. Nuclear Energy Facilities – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.
4. Airport Facilities and Infrastructure (public and private) – The footprint boundary will follow the boundary of the airport or heliport and includes mowed areas, parking lots, hangars, taxiways, driveways, terminals, maintenance facilities, beacons and related features. Indicators of the boundary, such as distinct land cover changes, fences and perimeter roads, will be used to encompass the entire airport or heliport.
5. Military Range Facilities & Infrastructure – The footprint boundary will follow the outer edge of the disturbed areas around buildings and includes undisturbed areas within the facility’s perimeter.
6. Hydroelectric Plants – The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility’s perimeter.
7. Recreation Areas & Facilities – This feature includes all sites/facilities larger than 0.25 acres in size. The footprint boundary will include any undisturbed areas within the site/facility.

PROJECT ANALYSIS AREA METHOD FOR PERMITTING SURFACE DISTURBANCE ACTIVITIES

1. Identify the portions of the proposed area of physical disturbance within PHMA. In other words, in GIS, “clip” the proposed project to PHMA.
2. Determine potentially affected occupied leks by placing a biologically appropriate buffer distance, given the disturbance type (i.e., using table E3 and/or other scientific information), around the proposed area of physical disturbance related to the project. All occupied leks located within the boundary and within PHMA will be considered affected by the project.
3. Next, place a biologically appropriate buffer distance, based on the disturbance type, around each of the affected occupied leks.
4. PHMA within the project buffer and lek buffer creates the project analysis area for each individual project. If there are no occupied leks within the project buffer, the project analysis area will be that portion of the project buffer within PHMA.
5. Map disturbances or use locally available data. Use of NAIP imagery is recommended.
6. Calculate percent existing disturbance using the formula above. If existing disturbance is less than 3 percent, proceed to next step. If existing disturbance is greater than 3 percent, consider if the proposal can incorporate avoidance, minimizing, and compensatory mitigation that reduces the project level disturbance below 3 percent.
7. Add proposed project disturbance footprint area and recalculate the percent disturbance. If disturbance is less than 3 percent, proceed to next step. If resulting disturbance is greater than 3 percent, consider if the proposal can incorporate avoidance, minimizing, and compensatory mitigation that reduces the project level disturbance below 3 percent.
8. For disturbance from proposed energy or mining facilities, calculate the disturbance density (listed below under *Density Cap*). If the disturbance density is less than 1 facility per 640 acres, averaged across the project analysis area, proceed to the NEPA analysis incorporating mitigation measures into an

alternative. If the disturbance density is greater than 1 facility per 640 acres, averaged across the project analysis area, either defer the proposed energy or mining project or co-locate it into existing disturbed area. Discrete disturbances should be consolidated and localized as much as possible; this could result in small areas where density exceeds 1 facility per 640 acres, but average density in the project analysis area remains beneath the cap.

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

MONITORING MANAGEMENT APPROACH

Actions and authorizations and progress toward completing and implementing activity-level plans, ought to be monitored consistently across all planning units and will be reported to Forest Service headquarters annually, with a summary report every 5 years, for the planning area.

The report ought to be based on current databases and information available at the time of writing, and some figures may be revised in later years as more complete information is compiled. Because some information is collected by the BLM and some by the state, a collaborative approach with other agencies may be useful for reporting.

Major items for monitoring during the implementation of the Amendment

A. Implementation (Decision) Monitoring.

Measure: Number of authorizations (NEPA decisions) and associated conditions or restrictions (e.g., efforts to avoid, minimize, or compensatory mitigation) in PHMA and GHMA.

B. Habitat Monitoring.

- Measure 1: Sagebrush Availability (percent of sagebrush per unit area)
- Measure 2: Habitat Degradation (percent of human activity per unit area)
- Measure 3: Energy and Mining Density (facilities and locations per unit area)

C. Population (Demographics) Monitoring.

D. Effectiveness Monitoring

Effectiveness Monitoring identifies various land agency contributions to habitat loss and calculates the trend of the above metrics over time by posing a series of additional questions:

1. Sagebrush Availability and Condition:

- d. Measure: Amount of sagebrush availability (existing vegetation) and the change in the amount and condition of sagebrush
- e. Measure: Existing amount of sagebrush on the landscape and the change in the amount relative to the pre-EuroAmerican historical, and potential, distribution of sagebrush (Biophysical potential).
- f. Measure: Trend and condition of the indicators describing sagebrush characteristics important to sage-grouse

2. Habitat Degradation and Intensity of Activities:

- a. Measure: Amount of habitat degradation and the change in that amount
- b. Measure: The intensity of activities and the change in the intensity

- c. Measure: the amount of reclaimed energy-related degradation and the change in the amount
- 3. Measure: the population estimation of sage-grouse and the change in the population estimation?
- 4. Measure: Forest Service contributions to changes in the amount of sagebrush
- 5. Measure: Forest Service contributions to habitat disturbance
- 6. Is the Amendment effective?
 - a. Measure: movement toward, away, or neutral to sage-grouse desired conditions
 - b. Measure: Disturbances within sage-grouse areas relative to objectives (e.g., caps)
 - c. Measure: Are sage-grouse populations within the plan boundary increasing, stable, or declining?

To satisfy these monitoring requirements, Region 4, in collaboration with Regions 2 and 1, ought to collect required information from various sources, with particularly close cooperation with the BLM and state wildlife agencies.

APPENDIX F - WYOMING

DESIRED CONDITION TABLES

Table F-1. Seasonal habitat desired conditions for greater sage-grouse.

ATTRIBUTE	INDICATORS	DESIRED CONDITION
AREAS MANAGED FOR BREEDING AND NESTING^{1,2,3} (Seasonal Use Period from March 15 to June 30) Apply 5.3 miles from occupied leks.⁴		
Lek Security	Proximity of trees ⁵	Trees or other tall structures are absent to uncommon
	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 cover ^{6,7,8}	5 to 25%
	Sagebrush height ⁷ Arid sites ^{7,9} Mesic sites ^{7,10}	4 to 32 inches in black sage and 12 to 32 inches in all other areas All Wyoming National Forests and National Grasslands: 16 to 32 inches
	Predominant sagebrush shape ⁶	>50% in spreading ¹¹
	Perennial grass canopy cover ^{6, 7} Arid sites ^{6,7,9} Mesic sites ^{6,7,10}	≥10% ≥15%
	Perennial grass height ^{6,7,8}	Provide overhead and lateral concealment from predators ^{6,15}
	Perennial forb canopy cover ^{6,7,8} Arid sites ⁹ Mesic sites ¹⁰	≥5% ^{6,7} ≥10% ^{6,7}
	AREAS MANAGED FOR BROOD-REARING/SUMMER¹ (Seasonal Use Period from July 1-to November 30)	
Cover	Seasonal habitat extent ⁷ (Percent of seasonal habitat meeting desired conditions)	>40% of the brood-rearing/summer habitat
	Sagebrush canopy cover ^{6,7,8}	10 to 25%
	Sagebrush height ^{7,8}	4 to 32 inches in black sage and 12 to 32 inches in all other areas
	Perennial grass canopy cover and forbs ^{7,8}	>15%
	Riparian areas/mesic meadows	Proper functioning condition ^{12, 16}
	Upland and riparian perennial forb availability ^{6,7}	Preferred forbs are common with several preferred species present ¹³

ATTRIBUTE	INDICATORS	DESIRED CONDITION
	Sagebrush cover adjacent to riparian areas/mesic meadows ⁶	Within 328 feet
WINTER¹ (Seasonal Use Period from December 1 to March 14)		
Cover and Food	Seasonal habitat extent ^{6,7,8} (Percent of seasonal habitat meeting desired conditions)	>80% of the winter habitat
	Sagebrush canopy cover above snow ^{6,7,8}	>10%
	Sagebrush height above snow ^{6,7,8}	>10 inches ¹⁴

¹Seasonal dates can be adjusted; that is, start and end dates may be shifted either earlier or later, but the local unit cannot shorten or lengthen the amount of days.

² Doherty 2008

³ Holloran and Anderson 2005

⁴ Buffer distance may be changed only if 3 out of 5 years if peer-reviewed and published telemetry studies indicate the 5.3 miles is not appropriate.

⁵ Baruch-Mordo et al. 2013

⁶ Stiver et al. 2015

⁷ Connelly et al. 2000

⁸ Connelly et al. 2003

⁹ 10–12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹⁰ \geq 12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).

¹¹ Sagebrush plants with a spreading shape provide more protective cover than sagebrush plants that are more tree- or columnar shaped (Stiver et al. 2015).

¹² Existing LMP desired conditions for riparian areas/wet meadows (spring seeps) may be used in place of properly functioning conditions, if appropriate for meeting greater sage-grouse habitat requirements.

¹³ Preferred forbs are listed in Stiver et al. 2015 (Table B-1). Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.

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 Coates et al. 2013

¹⁶ Prichard et al. 2003, Dickard et al. 2015

WYOMING MITIGATION STRATEGY MANAGEMENT APPROACH

The Forest Service may, in accordance with relevant plan components and in alignment with state-based compensatory mitigation efforts, require mitigation that provides no net loss to the greater sage-grouse when undertaking Forest Service management actions or authorizing third party actions that result in greater sage-grouse habitat loss and degradation, consistent with valid existing rights and applicable law.

The Forest Service will incorporate elements of The Planning Rule at 36 CFR 219.7(e)(1), which discusses required plan components, including: the intent of (iii) Standards “...to avoid or mitigate undesirable effects...” and (iv) Guidelines to “...to avoid or mitigate undesirable effects...” The greater sage-grouse is also a potential species of conservation concern, so the Forest Service will also follow the Forest Service Handbook FSH 1099.12, 23.13 (c) 5 (c) (2) and work “...towards an all-lands approach to species conservation with other land managers across the range of the species, including efforts to mitigate threats or stressors and to provide ecological conditions that would support the species.” Mitigation will follow the mitigation hierarchy from the White House Council on Environmental Quality’s (CEQ’s) NEPA regulations at 40 CFR 1508.20 which explain that mitigation first involves avoiding environmental impacts when possible, then minimizing impacts, and then compensating for residual impacts by applying beneficial mitigation actions.

If Forest Service management actions and authorized third party actions result in habitat loss and degradation that would otherwise not be allowed, even after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation may be used to provide no net habitat loss to the greater sage-grouse. Mitigation actions ought to account for any uncertainty associated with the effectiveness of such mitigation, be durable, timely, and in response to the residual impacts and in addition to other mitigation efforts.

The following steps identify the screening process when applying compensatory mitigation for activities that exceed timing, density, disturbance, distance or noise guidelines. The Forest Service may emphasize use of the State of Wyoming’s Greater Sage-Grouse Compensatory Mitigation Framework to the extent consistent with federal law, regulations, and policy.

The deciding official may:

1. Work jointly with the WGFD to evaluate projects and recommend mitigation in the form of avoidance and minimization.

- 1b. The WGFD will determine if the State requires or recommends any additional mitigation – including compensatory mitigation – under State regulations, policies, or programs related to the conservation of Greater Sage-Grouse.

2. Consider incorporating state required or recommended mitigation into the NEPA decision-making process.

3. Analyze whether the compensatory mitigation (using the appropriate State authority to quantify habitat offsets, durability, and other aspects used to determine the recommended compensatory mitigation action):

3a. achieves measurable outcomes for Greater Sage-Grouse habitat function on a landscape scale as determined by WGFD that are at least equal to the lost or degraded values in accordance with the Governor of Wyoming's Executive Order (latest version).

3b. provides benefits that are in place for at least the duration of the impacts.

3c. accounts for a level of risk that the mitigation action may fail or not persist for the full duration of the impact.

4. Ensure mitigation outcomes are consistent with the State of Wyoming's mitigation strategy and principles (in alignment with the Governor of Wyoming's Executive Order- latest version).

WYOMING ADAPTIVE MANAGEMENT STRATEGY MANAGEMENT APPROACH

GRSG-GEN-MA-004, GRSG-GEN-ST-005-Standard, and GRSG-GEN-MA-006-Management Approach provide a means of addressing and responding to unintended negative impacts on greater sage-grouse and its habitat to be addressed before consequences become severe or irreversible. Deciding officials may develop adaptive management strategies for projects requiring an EIS, in support of the population management objectives for Greater Sage-Grouse set by the State of Wyoming.

Adaptive management triggers are essential for identifying when potential management changes are needed in order to continue meeting Greater Sage-Grouse conservation objectives. With respect to Greater Sage-Grouse, all regulatory entities in Wyoming, including the BLM, use soft and hard triggers. Soft and hard triggers are focused on three metrics: 1) number of active leks, 2) acres of available habitat, and 3) population trends based on annual lek counts. The FS may coordinate with other agencies to create a unified, landscape approach to an adaptive management strategy.

In accordance with applicable MOUs with the State, the Deciding Official may seek recommendations from an Adaptive Management Working Group (AMWG) to determine if triggers are tripped. The AMWG may also convene to develop an interim response strategy and initiate an assessment to determine the causal factors. The AMWG would define a process to review and reverse adaptive management actions once the identified causal factor is resolved (e.g., returning to previous management once objectives of interim management strategy have been met).

MONITORING MANAGEMENT APPROACH

Actions and authorizations and progress toward completing and implementing activity-level plans, ought to be monitored consistently across all planning units and will be reported to Forest Service headquarters annually, with a summary report every 5 years, for the planning area.

The report ought to be based on current databases and information available at the time of writing, and some figures may be revised in later years as more complete information is compiled.

Major items for monitoring during the implementation of the Amendment

A. Implementation (Decision) Monitoring.

Measure: Number of authorizations (NEPA decisions) and associated conditions or restrictions (e.g., efforts to avoid, minimize, or compensatory mitigation) in PHMA and GHMA.

B. Habitat Monitoring.

Measure 1: Sagebrush Availability (percent of sagebrush per unit area)

Measure 2: Habitat Degradation (percent of human activity per unit area)

Measure 3: Energy and Mining Density (facilities and locations per unit area)

C. Population (Demographics) Monitoring.

D. Effectiveness Monitoring

Effectiveness Monitoring identifies various land agency contributions to habitat loss and calculates the trend of the above metrics over time by posing a series of additional questions:

1. Sagebrush Availability and Condition:

- a. Measure: Amount of sagebrush availability (existing vegetation) and the change in the amount and condition of sagebrush
- b. Measure: Existing amount of sagebrush on the landscape and the change in the amount relative to the pre-EuroAmerican historical, and potential, distribution of sagebrush (Biophysical potential).
- c. Measure: Trend and condition of the indicators describing sagebrush characteristics important to sage-grouse

2. Habitat Degradation and Intensity of Activities:

- a. Measure: Amount of habitat degradation and the change in that amount
- b. Measure: The intensity of activities and the change in the intensity

- c. Measure: the amount of reclaimed energy-related degradation and the change in the amount
- 3. Measure: the population estimation of sage-grouse and the change in the population estimation?
- 4. Measure: Forest Service contributions to changes in the amount of sagebrush
- 5. Measure: Forest Service contributions to habitat disturbance
- 6. Is the Amendment effective?
 - a. Measure: movement toward, away, or neutral to sage-grouse desired conditions
 - b. Measure: Disturbances within sage-grouse areas relative to objectives (e.g., caps)
 - c. Measure: Are sage-grouse populations within the plan boundary increasing, stable, or declining?

To satisfy these monitoring requirements, Region 4, in collaboration with Regions 2 and 1, ought to collect required information from various sources, with particularly close cooperation with the BLM and state wildlife agencies.

**APPENDIX G -
MANAGEMENT APPROACH
FOR FLUID MINERALS:
STIPULATIONS**

MANAGEMENT APPROACH FOR FLUID MINERALS: STIPULATIONS

The stipulations developed for this appendix have been developed as management strategies for when standards and guidelines call for specific restrictions on fluid minerals activities. They have been organized geographically and by plan component for ease of reference.

Summary of Forest Plan Component Reference and Applicable Stipulation

Multiple States

Stipulation	Component
A	GRSG-M-FMUL-ST-070, GRSG-GEN-ST-005-Standard (CO)
B	GRSG-M-FMUL-ST-078 (NV)
C	GRSG-M-FMUL-ST-065 (UT)
D	GRSG-M-FMUL-ST-067, GRSG-GEN-ST-006 (ID)
E	GRSG-GEN-GL-008 (CO, UT); GRSG-GEN-GL-009 (UT) GRSG-GEN-GL-010 (ID) GRSG-GEN-GL-011 (NV)
F	GRSG-GEN-GL-012 (NV)
G	GRSG-GEN-GL-010 (CO); GRSG-GEN-GL-009 (UT)
H	GRSG-GEN-GL-011 (ID)
I	GRSG-GEN-ST-007 (CO); GRSG-GEN-ST-008 (ID), GRSG-GEN-ST-006 (UT)
J	GRSG-GEN-ST-009 (NV)

Wyoming

Stipulation	Component
WY1	GRSG-TDDD-GL-014
WY2	GRSG-TDDD-GL-016
WY3	GRSG-TDDD-GL-017
WY4	GRSG-TDDD-GL-018
WY5	GRSG-TDDD-GL-019
WY6	GRSG-TDDD-GL-020
WY7	GRSG-TDDD-GL-026
WY8	GRSG-TDDD-GL-21

STIPULATION A: NO SURFACE OCCUPANCY STIPULATION (CO)
Greater Sage-Grouse in Priority Habitat Management Areas
GRSG-M-FMUL-ST-070, GRSG-GEN-ST-005-Standard (CO)

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: An exception could be granted by the authorized officer if:

- there would be no direct or indirect effects to the GRSG or its habitat; or
- granting the exception provides an alternative to a similar action occurring on a nearby parcel; and
- the exception provides habitat/conservation values, services, and functions that are at least equal to the lost or degraded values (see management approach in Appendix B) to GRSG.

Modifications: None.

Waiver: None.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION B: NO SURFACE OCCUPANCY STIPULATION (NV)
Greater Sage-Grouse in Priority Habitat Management Areas
GRSG-M-FMUL-ST-078 (NV)

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: An exception could be granted by the authorized officer if one of the following applies:

- The location of the proposed authorization is determined to be unsuitable habitat or non-habitat; lacks the ecological potential to become marginal or suitable habitat; and would not result in direct, indirect, or cumulative impacts on greater sage-grouse and its habitat.
- Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid (e.g. co-locate, relocate, bury), minimize, mitigate) to achieve a net conservation gain and demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline.

Modifications: None.

Waiver: None.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION C: NO SURFACE OCCUPANCY STIPULATION (UT)
Greater Sage-Grouse in Priority Habitat Management Areas
GRSG-M-FMUL-ST-065 (UT)

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: An exception could be granted by the authorized officer if:

- There would be no direct or indirect effects to the greater sage-grouse or its habitat; or
- Impacts could be fully offset through additional mitigation; and

Modifications: None.

Waiver: None.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION D: NO SURFACE OCCUPANCY STIPULATION (ID)
Greater Sage-Grouse in Priority and Important Habitat Management Areas
GRSG-M-FMUL-ST-067, GRSG-GEN-ST-006-Standard (ID)

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: An exception could be granted by the authorized officer if:

- There would be no direct or indirect effects to the GRSG or its habitat; or
- Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and
- Through coordination with the State of Idaho, it is determined that the project cannot be achieved, technically or economically, outside of this management area; and
- The project location and/or design should best reduce impacts on GRSG and other high value natural, cultural, or societal resources; this may include colocation within the footprint for existing infrastructure, to the extent practicable; and
- The project results in no net loss to GRSG Key habitat or with beneficial mitigation actions reduces habitat fragmentation or other threats within the Conservation Area; and
- The project design mitigates unavoidable impacts through appropriate compensatory mitigation (Appendix C- ID Mitigation Strategy); and
- The project will not exceed the disturbance cap; and,
- Large-scale anthropogenic disturbances in PHMA and IHMA will be reviewed by the Interagency Technical Team.

Modifications: None.

Waiver: None.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION E: TIMING LIMITATION STIPULATION (CO, UT, ID, NV)
Greater Sage-Grouse Breeding & Nesting Habitats
GRSG-GEN-GL-008 (CO, UT); GRSG-GEN-GL-010 (ID), GRSG-GEN-GL-011 (NV)

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

Breeding and nesting seasonal use periods:
March 1 to June 15 (CO, UT)
March 15 to June 15 (ID)
March 1 to June 30 (NV)

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) and its habitat from surface disturbing and disruptive activities during breeding and nesting.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, will not affect reproductive displays, nest attendance, egg or chick survival, or early brood-rearing success. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected.

Modifications: The authorized officer may modify the size and shape of the area or the criteria if an environmental record of review indicates the actual habitat suitability for seasonal GRSG activities is greater or less than the stipulated area, or it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for the seasonal habitat, life-history, or behavioral needs of the GRSG, including (but not limited to) reproductive display, daytime loafing/staging activities, and nesting.

Waiver: A waiver may be granted if the deciding official determines through coordination with the state agency, that new habitat studies demonstrate the entire lease area affected by this stipulation no longer contains nesting habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION F: CONTROLLED SURFACE USE STIPULATION (NV)
Tall Structures near Greater Sage-Grouse Active or Pending Leaks
GRSG-GEN-GL-012 (NV)

Surface occupancy or use is subject to the following special operating constraints.

Construction of tall structures within 3 miles from active or pending leaks, 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.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GSRG) and its habitat by limiting (not prohibiting) the placement of structures that introduce new perching and/or nesting opportunities for avian predators or by decreasing the use of an area.

Exceptions: The authorized officer may approve actions that are within the applicable lek buffer distance identified above only if:

- it is not possible to relocate the project outside of the applicable lek buffer distance(s) identified above; and
- the FS determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area, based on best available science, landscape features, and other existing protections, (e.g. land use allocations, state regulations); or
- the FS determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations).

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g. land use allocations and state regulations) may be appropriate for determining activity impacts. All variations in lek buffer distances will require appropriate analysis and disclosure as part of activity authorization.

Modifications: A modification may be granted if the authorized officer determines through coordination with the state agency, that new habitat studies demonstrate a portion of the lease area affected by this stipulation no longer contains nesting habitat.

Waiver: A waiver may be granted if the determines through coordination with the state agency, that new habitat studies demonstrate the entire lease area affected by this stipulation no longer contains nesting habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION G: CONTROLLED SURFACE USE STIPULATION (CO, UT)

Tall Structures near Greater Sage-Grouse Occupied Leks

GRSG-GEN-GL-010 (CO); GRSG-GEN-GL-009 (UT)

Surface occupancy or use is subject to the following special operating constraints.

Development of tall structures within 2 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.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GSRG) and its habitat by limiting (not prohibiting) the placement of structures that introduce new perching and/or nesting opportunities for avian predators or by decreasing the use of an area.

Exceptions: The authorized officer may approve actions that are within the applicable lek buffer distance identified above only if:

- it is not possible to relocate the project outside of the applicable lek buffer distance(s) identified above; and
- the FS determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area, based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations); or
- the FS determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations).

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations and state regulations) may be appropriate for determining activity impacts. All variations in lek buffer distances will require appropriate analysis and disclosure as part of activity authorization.

Modifications: A modification may be granted if the authorized officer determines through coordination with the state agency, that new habitat studies demonstrate a portion of the lease area affected by this stipulation no longer contains nesting and breeding habitat.

Waiver: A waiver may be granted if the authorized officer determines through coordination with the state agency, that new habitat studies demonstrate the entire lease area affected by this stipulation no longer contains nesting and breeding habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION H: CONTROLLED SURFACE USE STIPULATION (ID)
Tall Structures near Greater Sage-Grouse Occupied Leaks
GRSG-GEN-GL-011 (ID)

Surface occupancy or use is subject to the following special operating constraints.

Development of tall structures within 2 miles in priority habitat management areas; 1.2 miles in important habitat management areas; and 0.6 miles in general habitat management areas 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 breeding or nesting habitat.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GSRG) and its habitat by limiting (not prohibiting) the placement of structures that introduce new perching and/or nesting opportunities for avian predators or by decreasing the use of an area.

Exceptions: The authorized officer may approve actions that are within the applicable lek buffer distance identified above only if:

- it is not possible to relocate the project outside of the applicable lek buffer distance(s) identified above; and
- the FS determines that a lek buffer-distance other than the applicable distance identified above offers the same or a greater level of protection to GRSG and its habitat, including conservation of seasonal habitat outside of the analyzed buffer area, based on best available science, landscape features, and other existing protections, (e.g., land use allocations, state regulations); or
- the FS determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations).

Justifiable departures to decrease or increase from these distances, based on local data, best available science, landscape features, and other existing protections (e.g., land use allocations and state regulations) may be appropriate for determining activity impacts. All variations in lek buffer distances will require appropriate analysis and disclosure as part of activity authorization.

Modifications: A modification may be granted if the authorized officer determines through coordination with the state agency, that new habitat studies demonstrate a portion of the lease area affected by this stipulation no longer contains nesting and breeding habitat.

Waiver: A waiver may be granted if the authorized officer determines through coordination with the state agency, that new habitat studies demonstrate the entire lease area affected by this stipulation no longer contains nesting and breeding habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION I: TIMING LIMITATION STIPULATION (CO, ID, UT)
Greater Sage-Grouse – Noise Limitation
GRSG-GEN-ST-007 (CO); GRSG-GEN-ST-008 (ID), GRSG-GEN-ST-006 (UT)

Surface occupancy or use is subject to the following special operating constraints.

New large scale infrastructure or facilities that create sustained detrimental noise levels at the perimeter of an occupied lek during lekking from _____ to _____ from ___ p.m. to ___ a.m., will not be authorized.

March 1 to April 30; 6 p.m. to 9 a.m. (CO, UT)

March 15 to May 1; 6 p.m. to 9 a.m. (ID)

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Limiting disturbances to greater sage-grouse (GRSG) during lekking.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected.

Modifications: The authorized officer may modify the size and shape of the area or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat, life-history, or behavioral needs of the GRSG, including (but not limited to) reproductive display, daytime loafing/staging activities, and nesting.

Waiver: This stipulation may be waived over the entire lease if it is determined that the GRSG lek that would be disturbed by the noise has been classified as unoccupied (not active in the prior 10 years) as determined by the state wildlife agency.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.

STIPULATION J: TIMING LIMITATION STIPULATION (NV)
Greater Sage-Grouse – Noise Limitation
GRSG-GEN-ST-009 (NV)

Surface occupancy or use is subject to the following special operating constraints.

New surface disturbing and disruptive activities that create detrimental noise levels at the perimeter of an active or pending lek during lekking will not be authorized from March 1 to May 15 from 6 p.m. to 9 a.m. Detrimental noise is considered to be 10 dBA above ambient baseline noise. Do not include noise resulting from human activities that have been authorized and initiated within the 10 years prior September 16, 2015 in the ambient baseline measurement.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Limiting disturbances to greater sage-grouse (GRSG) during lekking.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected.

Modifications: The authorized officer may modify the size and shape of the area or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat, life-history, or behavioral needs of the GRSG, including (but not limited to) reproductive display, daytime loafing/staging activities, and nesting.

Waiver: This stipulation may be waived over the entire lease if it is determined that the GRSG lek that would be disturbed by the noise has been classified as unoccupied (not active in the prior 10 years) as determined by the state wildlife agency.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.

STIPULATION WY1: NO SURFACE OCCUPANCY STIPULATION
Greater Sage-Grouse Priority and Connectivity Habitat Management Areas Where Density of
Activities Exceeds One Pad per 640 Acres

GRSG-TDDD-GL-014

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

On lands located in priority habitat management areas or connectivity habitat management areas where oil and gas development exceed an average of one pad per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: The authorized officer may grant an exception if a review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavior needs of the GRSG. The FS can and does grant exceptions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Surface: This stipulation may be waived over the entire lease if, in coordination with the State agency, it is determined that the described lands are incapable of serving the long-term requirements of GRSG habitat for which the stipulation applies.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY2: NO SURFACE OCCUPANCY STIPULATION
Greater Sage-Grouse Occupied Leks in Priority and Connectivity Habitat Management Areas
GRSG-TDDD-GL-016

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

On or within a 0.6 mile radius of the perimeter of occupied leks that are located in priority habitat management areas or connectivity habitat management areas.

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: The authorized officer may grant an exception if a review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavior needs of the GRSG. The FS can and does grant exceptions, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the State agency, it is determined that the described lands are incapable of serving the long-term requirements of GRSG seasonal habitat for which the stipulation applies.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY3: NO SURFACE OCCUPANCY STIPULATION
Greater Sage-Grouse Occupied Leks in General Habitat Management Areas
GRSG-TDDD-GL-017 (WY)

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

On or within a 0.25 mile radius of the perimeter of occupied leks that are located in general habitat management areas.

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) habitat.

Exceptions: The authorized officer may grant an exception if a review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavior needs of the GRSG. The FS can and does grant exceptions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the state agency, it is determined that the described lands are incapable of serving the long-term requirements of GRSG breeding, nesting, or brood-rearing habitat for which the stipulation applies.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY4: TIMING LIMITATION STIPULATION
Greater Sage-Grouse Priority Habitat Management Areas
GRSG-TDDD-GL-018 (WY)

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No surface disturbing or disruptive activities from March 15 through June 30 in priority habitat management areas.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) priority habitat management areas (PHMA).

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, will not affect PHMA. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance. Where credible data, based upon field analysis, support different timeframes that better protect the bird and its use of habitat, dates may be shifted by either 14 days before or after the above dates, but not both.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the State agency, it is determined that the described lands are no longer considered in the land use plan to be within a GRSG designated PHMA or are incapable of serving the long-term requirements of GRSG seasonal habitat, and that these ranges no longer warrant consideration as components of GRSG habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY5: TIMING LIMITATION STIPULATION
Greater Sage-Grouse Leks within Connectivity Habitat Management Areas
GRSG-TDDD-GL-019 (WY)

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No new surface disturbing or disruptive activities will be authorized from March 15 through June 30 within 4 miles of a lek perimeter within connectivity habitat management areas.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting greater sage-grouse (GRSG) leks within connectivity habitat management areas.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the exception.

Where credible data, based upon field analysis, support different timeframes that better protect the bird and its use of habitat, dates may be shifted by either 14 days before or after the above dates, but not both.

Modifications: The authorized officer may modify the size and shape of the area or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the state agency, it is determined that the described lands are no longer considered capable of serving the long-term requirements of GRSG breeding habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY6: TIMING LIMITATION STIPULATION
Greater Sage-Grouse Occupied Lek or Lek Perimeter in General Habitat Management Areas
GRSG-TDDD-GL-020 (WY)

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No new surface disturbing or disruptive activities will be authorized from March 15 to June 30 within 2.0 miles of the lek or lek perimeter of any occupied lek in general habitat management areas (GHMA).

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting GRSG breeding and nesting habitat associated with occupied leks.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG. The FS can and does grant exceptions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance. Where credible data, based upon field analysis, support different timeframes that better protect the bird and its' use of habitat, dates may be shifted by either 14 days before or after the above dates, but not both.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the state agency, it is determined that the described lands are incapable of serving the long-term requirements of GRSG breeding, nesting, or brood-rearing habitat.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY7: TIMING LIMITATION STIPULATION
Greater Sage-Grouse Winter Concentration Areas
GRSG-TDDD-GL-026

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No new surface disturbing or disruptive activities from December 1 through March 14 within winter concentration areas specifically mapped and designated by the Wyoming Game and Fish Department.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Protecting Greater Sage-Grouse (GRSG) populations that reside in Priority Habitat Management Areas, but migrate to unique specified winter habitat areas.

Exceptions: The authorized officer may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, will not impair the function and suitability of the winter concentration area, or it is determined that the winter concentration area is not occupied by concentrated populations of GRSG during the period of concern. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected. The FS will coordinate with the State wildlife agency to consider the Wyoming Compensatory Mitigation Framework as the primary mechanism to calculate credits and debits that adequately offset the effects of the disturbance.

Modifications: The authorized officer may modify the area subject to the stipulation or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the state agency, it is determined that the described lands are incapable of serving the long-term requirements of GRSG winter concentration areas.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

STIPULATION WY8: TIMING LIMITATION STIPULATION
Greater Sage-Grouse – Noise Limitation
GRSG-GEN-GL-021

Surface occupancy or use is subject to the following special operating constraints.

New project noise levels (individual or cumulative), in priority habitat management areas either that exceed 10 dBA (as measured by L50) above baseline noise at the perimeter of the lek (or lek center if no perimeter is yet mapped) will not be authorized from March 1 to May 15 from 6 p.m. to 8 a.m.

On the lands described below:

Insert applicable legal land description here.

For the purpose of:

Limiting disturbances to greater sage-grouse (GRSG) during lekking.

Exceptions: The deciding official may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG. Actions designed to enhance the long-term utility or availability of suitable GRSG habitat may be exempted from this timing limitation. The FS can and does grant exceptions to seasonal restrictions if the FS, in coordination with the state agency, determines that granting an exception would not adversely impact the population being protected.

Modifications: The deciding official may modify the size and shape of the area or the criteria if an environmental record of review finds that a portion of the area is non-habitat and disturbance there does not preclude effective sage-grouse use of adjacent habitats, or if it is identified through scientific research or monitoring that the existing criteria are inadequate or overly protective for maintaining the function or utility of the site for habitat, life-history, or behavioral needs of the GRSG, including (but not limited to) reproductive display, daytime loafing/staging activities, and nesting.

Waiver: This stipulation may be waived over the entire lease if, in coordination with the state wildlife agency, it is determined that the GRSG lek that would be disturbed by the noise has been classified as unoccupied (not active in the prior 10 years) as determined by the state wildlife agency.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.

APPENDIX H - REFERENCES

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**APPENDIX I –
RESPONSE TO DEIS
COMMENTS**

APPENDIX I – RESPONSE TO DEIS COMMENTS

I.1 BACKGROUND

A draft EIS (DEIS) was published on October 5, 2018, which initiated a third public comment period. During this third comment period, the Forest Service received 33,192 responses, of which 5,413 were duplicate submissions. These responses are analyzed using the content analysis process described in the next section. A spreadsheet containing all unique comments and response to comments is available at: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

I.2 CONTENT ANALYSIS PROCESS

Content analysis is a method of eliciting meanings, ideas, and other information from written text, pictures, or audio or video messages. The goals of the content analysis process are to:

- ensure that every comment is considered,
- identify the concerns raised by all respondents,
- represent the breadth and depth of the public’s viewpoints and concerns as fairly as possible, and
- present public concerns in such a way as to facilitate the Forest Service’s consideration of comments.

A specific method of content analysis has been developed and refined by the NEPA Services Group, a specialized Forest Service unit that analyzes public comment on federal land and resource management agency assessments and proposals. This systematic process is designed to provide specific demographic information, establish a mailing list of respondents, identify individual comments by topic in each response, evaluate similar comments from different responses, and summarize like comments as specific concern statements. The process also provides a relational database capable of reporting various types of information while linking comments to original letters.

Through the content analysis process, the content analysis team strives to identify all relevant issues—not just those represented by the most respondents. The breadth, depth, and rationale of each comment are especially important. In addition to capturing relevant factual input, analysts try to capture the relative emotion and strength of public sentiment behind particular viewpoints.

I.3 DEMOGRAPHICS

Most respondents submitted comments by email; however, comments were also mailed or submitted via the Forest Service’s public participation web portal. A total of 622 unique letters were received. Additionally, campaigns from nonprofit organizations and individuals resulted in a large number of form letters. Letters that represent slight variations of the form letter without significant additional information were treated as form letters. Those with additional substantive text were treated as form pluses. In total, 27,157 form letter submissions were received (including form masters, forms, and form pluses), based on 32 different form letters.

Table 1, below, provides information on the affiliation of commenters. Most comments were received by individuals (99.7 percent), followed by organizations (0.2 percent) and government representatives (0.1 percent).

Table 3-1. Submissions by Affiliation.

Affiliation	Number of Submissions*
Government (federal, state, tribal, and local)	34
Organizations (businesses and nonprofits)	50
Individuals	33,108

* Number may include multiple or duplicate submissions by the same entity.

I.4 COMMENTS ON PROPOSED ACTION

This chapter provides a summary of public sentiment regarding proposed revisions to existing state greater sage-grouse land management plans. Due to the number and complexity of substantive comments received, this report provides an overview of key themes and issues but is not a comprehensive summary of all comments received. A complete list of all unique comments received is available: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904. Response to comments is shown under the themes and issues below. Responses to individual comments are included in the document in the link above.

4.1 General

Many comments on the DEIS encompassed topics identified during earlier public comment periods and are briefly recaptured below. Readers are referred to previous scoping summary reports for additional detail. Comments include:

- General statements both for and against proposed plan amendments. Some comments request that the Forest Service enact change through other means than plan amendment, such as through policy guidance, maintenance, and training.
- Differences of opinion regarding level of planning. Many comments express support for state-specific plan adjustments, as well as greater coordination and consistency with federal, state, and local plans and regulations. However, other commenters state that the Forest Service should take a range-wide approach to ensure consistency and conservation across state borders.
- General planning recommendations. Commenters offer general planning recommendations such as: 1) ensuring opportunities for meaningful public involvement, 2) coordinating with the Bureau of Land Management (BLM) during the amendment process, and 3) requests that the Forest Service conduct additional analysis that satisfies NEPA's hard look doctrine.
- Differences of opinion regarding purpose and need. Some comments support the purpose and need statement, while others request further justification and express concern that the narrow focus precludes the possibility of alternatives and is not supported by science-based evidence.

Additional general topics identified during the DEIS comment period included requests that the Forest Service: 1) provide sufficient funding and appropriate staff to implement the plan amendments, 2) clarify management changes under the proposed preferred alternative, 3) provide a rationale for why scoping comments were or were not addressed in the EIS, and 4) provide context and rationale for changing standards or guidelines to a management approach.

- **Response:** Other land managers and government agencies are currently implementing many other ongoing programs, plans, and policies in the planning area. The FS recognizes the importance of tribal, state, and local plans. As required by the planning rule, the FS will "coordinate land management planning with the equivalent and related planning efforts of federally recognized Indian Tribes, other Federal agencies, and State and local governments" (36 CFR 219.4 (b)(1)). The FS will not "direct or control management outside the planning area or conform management to meet non-Forest Service objectives or policies" (36 CFR 219.4 (b)(3)). The FS has facilitated and encouraged involvement of state and local agencies throughout the process and requested cooperating agencies in the NOI in order that their views may be appropriately considered, contribute to common objectives, address impacts, resolve or reduce conflicts, and contribute to compatibility between FS and other agencies' plans. Both NOIs mentioned the context of the court order for a supplemental EIS on the SFA issue; due to change of conditions (e.g., BLM not withdrawing SFA lands), the SFA designation is being removed so there is no need to respond to previous court decisions that would be satisfied by the proposed action.

The purpose and need statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives (36 CFR 1502.13). The purpose of the proposed action is to incorporate new information to improve the clarity, efficiency, and implementation of the 2015 Greater Sage-Grouse Plan Amendments, including better alignment with BLM and state plans, in order to benefit GRSG conservation at the landscape scale (FEIS, Chapter 1, Section 1.3). Aligning more closely with the BLM and State Plans is one part of the purpose and need. The Forest Service aligned with BLM and State plans to the extent possible if those plan components or processes were consistent with the purposes, policies, and programs of Federal laws and regulations applicable to NFS lands. The responsible official has the discretion to determine whether and how to amend the plan and to determine the scope and scale of any amendment (36 CFR 219.13(a)).

4.2 Alternatives

Many comments express support for management recommendations presented in the proposed action, such as removal of sagebrush focal areas, net conservation gain, and mandatory habitat objectives. However, other comments state that the Forest Service should develop and analyze a broader range of alternatives, including 1) alternatives proposed during the scoping period, 2) a conservation alternative that is more environmentally protective, and 3) an alternative to complete the supplemental EIS that a federal court found needed to maintain the sagebrush focal areas (SFAs). One comment also recommends that the Forest Service adopt the State of Utah Alternative.

Some respondents note significant differences between the proposed management of greater sage-grouse habitat on national forests in different states and note that the Forest Service is not required to select the preferred alternative in the ROD. Additionally, it is stated that the Forest Service's Final EIS (FEIS) should articulate that the No Action Alternative is not a viable alternative.

- **Response:** The responsible official has the discretion to determine whether and how to amend the plan and to determine the scope and scale of any amendment (36 CFR

219.13(a)). The purpose and need statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives (36 CFR 1502.13). Agencies are encouraged to tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review. The subsequent document shall state where the earlier document is available (36 CFR 1502.20). The 2018 DEIS tiers to the 2015 GRSG FEIS and full range of alternatives analyzed are incorporated by reference (Table 4-1 and Table 4-2). In addition to the No Action and Proposed Action Alternatives, the Forest Service analyzed a State of Utah Alternative after reviewing comments brought forth during the NOI comment period.

The Proposed Action and State of Utah Alternative identified areas designated as sagebrush focal areas (SFAs) would be eliminated and designated according to their underlying habitat management areas in order to streamline plans in accordance with BLM and FS policy and meet legal requirements of a March 2017 District Court Ruling for the State of Nevada (Section 1.4). The proposed mineral withdrawal was canceled with a Notice of Cancellation published in the Federal Register on October 11, 2017, which canceled the BLM's application to withdraw SFA from locatable mineral entry (82 FR 47248, October 11, 2017).

4.3 General Science

Comments request that the EIS be updated to reflect best available science and allow for incorporation of future new scientific research and methods into management actions. Several respondents also state that the Forest Service should not rely on the landscape-scale planning provisions in the National Technical Team (NTT) report and other related documents that were the basis for the 2015 GRSG RODs. Many of these comments also critique the use of specific scientific studies, such as Hanser et al. (2018)²⁴, as justification for management decisions made in the EIS, or provided additional references for incorporation into the EIS.

- **Response:** The GRSG Plan Amendment tiers to the 2015 GRSG ROD and FEIS and uses best available science. The FEIS describes best available science and includes citations for new or updated literature that was reviewed and incorporated since the 2015 GRSG ROD was signed. Refer to Chapter 3, 3.1.1 Greater Sage-grouse Literature, 2015-2019 and Chapter 4, 4.2 Use of Best Available Scientific Information.

4.4 Allowable Uses

A wide range of topics were received for the Allowable Uses category. Comments include:

- Concern that plan amendments allow for collaboration and management flexibility, site-specific data, and decisions on a project-by-project basis. In particular, some commenters express concern that proposed restrictions will adversely affect their ability to operate on public lands or request

²⁴ Hanser, S.E., Deibert, P.A., Tull, J.C., Carr, N.B., Aldridge, C.L., Bargsten, T.C., Christiansen, T.J., Coates, P.S., Crist, M.R., Doherty, K.E., Ellsworth, E.A., Foster, L.J., Herren, V.A., Miller, K.H., Moser, Ann, Naeve, R.M., Prentice, K.L., Remington, T.E., Ricca, M.A., Shinneman, D.J., Truex, R.L., Wiechman, L.A., Wilson, D.C., and Bowen, Z.H., 2018, Greater sage-grouse science (2015–17)— Synthesis and potential management implications: U.S. Geological Survey Open-File Report 2018–1017, 46 p., <https://doi.org/10.3133/ofr20181017>.

that the Forest Service permit authorization of projects in priority habitat management areas (PHMA), when impacts can be offset by compensatory mitigation. One comment specifically encourages the Forest Service to adopt the State of Idaho's recommendations for infrastructure.

- Support as well as opposition to guidelines that call for burying transmission lines.
- A request that the EIS clarify that county administrative activities, existing infrastructure, and emergency services are not considered anthropogenic disturbance and all qualify as "authorized uses" in both priority and general habitat.
- Support for and against hunting and development in greater sage-grouse habitat. Some comments also recommend that the Forest Service clarify the magnitude of threat for activities such as mining or include provisions that exempt pre-2008 permitting activities.
- Concern that the noise limits in the plan amendments are not supported by science and need flexibility in implementation. Other comments recommend new noise standards or express concern that shifting the baseline of measurement could increase impacts of noise on greater sage-grouse.
- Support for focused conservation measures in priority (core) habitat lands only. However, other comments state that this approach does not comply with state regulations that area designed to allow flexibility for land users in noncore or general habitat management areas (GHMAs).
- Concern that plan amendments insufficiently analyze the impacts of changing the application of standards from "occupied lek" to "active or pending lek." Other comments also suggest 1) retaining specific breeding season dates and seasonal timing restrictions, or 2) allowing production and maintenance activities to take place as necessary while seasonal use restrictions are in effect.
 - **Response:** Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. The noise plan component has been revised in the proposed action for Idaho, Nevada, Utah, and Wyoming to allow for clarification and management applicability. The use of the terminology used to define lek activity in Nevada is explained in Section 4.5.4.

4.5 Renewable Energy

Comments regarding renewable energy include 1) a request for the Forest Service to address why solar and wind energy developments are treated differently, given that they produce similar biological impacts; and 2) support for solar and wind development, with particular discussion on allowing development in areas of non-habitat within PHMA or if a development avoids, minimizes, and compensates for impacts to greater sage-grouse and sage-grouse habitat.

- **Response:** PHMA, and GMHA in Nevada, is managed as exclusion for solar energy development consistent with the BLM's 2012 Solar Programmatic EIS (PEIS). Renewable energy was analyzed in the 2015 GRSG FEIS and that analysis, which

identified PHMAs (and GHMAs in Nevada) to be managed as exclusion for utility scale wind, was incorporated by reference (Chapter 4, Table 4-1). A full range of wind and solar ROW alternatives were analyzed in the 2015 GRSG FEIS. Analyses are incorporated by reference and the location of the analyses are identified in Chapter 4, Table 4-2.

4.6 Mineral Resources

Comments on mineral resource management vary widely. Concern is expressed that the Forest Service's revised definition of Valid Existing Rights (VER) could limit stakeholders' rights to use and occupy public lands, and that the agency should ensure that any restrictions do not substantially interfere with a claimant's rights under the Mining Law, Multiple Use Sustained Yield Act (MUSYA), and Forest Service's Organic Act. These commenters also request that the EIS provide additional analysis of the economic consequences of prohibiting or limiting access to mineral resources, encourage the development of a land management mineral classification plan, and allow for exceptions 1) for free-use collection by counties and/or road districts and 2) for mineral material development or disposal in areas in PHMA that do not directly impact greater sage-grouse.

- **Response:** Existing rights are defined as "Documented legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted, permitted, or otherwise authorized under various statutes of law over time" (2019 FEIS Glossary).

In regard to locatable minerals, standards state that mitigation and phased development are applied consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended (Refer to standards for each state under Locatable Minerals in the FEIS).

Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.7 Fluid Minerals

Fluid mineral comments are mixed. Some respondents state that oil and gas leasing and other development activities should be prioritized outside of important greater sage-grouse population areas. Concern is expressed that fluid mineral conservation measures will not be sufficient to prevent habitat loss. Therefore, exemptions should be limited and require input from state and federal wildlife experts. However, other comments express support for 1) removal of the requirement for a unanimous concurrence from a team of experts, and 2) no surface occupancy (NSO) exceptions if there would be no direct or indirect effects to the greater sage-grouse or its habitat, or any impacts could be fully offset through mitigation. These latter comments specifically request the option of issuance and modification of waivers for NSO in PHMA. It is also requested that the Forest Service clarify how the "authorized officer" is selected for each instance of waivers, exceptions, and modifications of NSO stipulations.

- **Response:** Licensees, permittees, and lessees, their contractors and subcontractors, operators, or assignees must comply with the standard stipulation, all special stipulations, and any other requirement of the contract made by the Forest Service for the protection of the land and its resources and other users. The Forest Service has the ultimate responsibility for ensuring protection of surface resources on National Forest System lands (FSM 2822.32c). Appendix G includes stipulations that have been developed as management strategies for when standards and guidelines call for specific restrictions on fluid minerals activities. Project-level actions necessary to execute the LMP-level decisions in the FEIS and ROD are subject to further environmental review under NEPA. This process requires public notification. Coordination with an interagency team, which would include both FWS and the respective state agencies, would be required under the adaptive management and mitigation processes (Chapter 4, Section 4.5.5). An exception could be granted by the authorized officer (defined in the Glossary) in a decision following the environmental review of the project-level action. The stipulations are intended to provide some level of consistency and a reference for NFS units in each geographic area at the time of site-specific environmental review.

4.8 Disturbance Caps

Although one comment supports the use of disturbance caps, most comments express opposition to the use of disturbance caps in plan amendments, particularly with regards to application for mineral resources, existing leases, and private land, and request that the Forest Service eliminate such caps or only apply the disturbance criteria in PHMA at the biologically significant unit (BSU) level. Concern is also expressed that the requirement of a 3% disturbance cap discourages the clustering of anthropogenic disturbances and that the Forest Service should 1) consider impacts to recreation activities, and 2) fully identify what “anthropogenic disturbances” will be looked at to calculate the disturbance cap and work with other entities to develop a consistent methodology.

- **Response:** The 3% disturbance cap was analyzed in 2015 GRSG FEIS and is incorporated by reference in the GRSG Plan Amendment FEIS. The location of the analyses are located in Chapter 4, Table 4-1 under the Tribal Interest, Greater Sage-Grouse, Vegetation, Riparian Area and Water Resources, Wild Horse and Burro, Wildland Fire, Recreation, Travel Management, Recreation, Land Use and Realty, Renewable Energy, Minerals, and Climate Change resource topics. All existing discrete anthropogenic disturbances, regardless of ownership, are used to calculate disturbance caps. Anthropogenic disturbance is defined in the Glossary as “human-created features including but not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells and associated facilities, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines”. In Wyoming, the 5% disturbance cap applies to existing anthropogenic activity and wildfire. Although disturbances on all lands are used to calculate disturbance caps, FS does not have the authority and does not assert or imply any caps on any non-Forest Systems lands.

4.9 Best Management Practices

It is stated that the Forest Service should only implement best management practices (BMPs) as a recommended (not required) measure on an as-needed basis in PHMA. Comments also encourage the Forest Service to incorporate State of Idaho's recommendations, base BMPs on science, and develop flexible BMPs that are based on site-specific conditions and do not prioritize prohibition as the first response.

- **Response:** Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904

4.10 Buffers

Comments regarding greater sage-grouse buffers are mixed. Some commenters oppose any reduction in lek buffers, while others state that:

- spatial and seasonal off-highway vehicle restrictions within lek buffers are arbitrary and lack scientific basis.
 - The Forest Service should make lek buffers adaptive to individual lek sites and habitat types, or adopt lek buffers proposed by the State of Idaho and BLM.
 - The Forest Service should only limit or preclude certain activities near active leks during the active breeding season.
 - lek definitions and buffers should be uniform across the entire greater sage-grouse habitat landscape, with additional explanation of how it will determine that lekking is occurring and how the boundaries of those leks will be drawn.
 - The Forest Service should clarify that lek buffers were not established to “not allow activities” but only to “assess and address impacts” to maintain lek persistence.
- **Response:** The modified lek buffers in Idaho are analyzed in Chapter 4, Section 4.5.4 - Modifying Lek Buffers and 4.7.8 Cumulative Effects - Modifying Lek Buffers. The change in lek buffers based on HMAs was to better align with the State of Idaho's tiered management approach. Application of differing lek buffer distances and disturbance density calculations were analyzed in the 2015 GRSG FEIS and the analysis is incorporated by reference. The use of the terminology used to define lek activity in Nevada is explained in section 4.5.4.

4.11 Greater Sage-grouse Management

As noted in previous scoping executive summaries, comments express both support and opposition to the removal of SFAs from the plan amendments. Many comments express concern that the Forest Service not automatically reclassify SFAs as PHMA. Instead, one commenter states, “these lands should be managed according to their actual habitat conditions based on site-specific habitat data.”

Commenters are also mixed on changes to PHMA and GHMA in the plan amendments. Some commenters request that the Forest Service avoid reductions in PHMA and GHMA acres or validate these reductions in the EIS. However, others request that the Forest Service remove GHMA designations (along with management requirements) on National Forest System lands or, more specifically, remove PHMA designation and management proposals for greater sage-grouse on the Anthro Mountain in Utah.

Other general greater sage-grouse management topics include 1) concern that the EIS analysis does not support conclusions regarding the greater sage-grouse as a species of conservation concern and agency obligations under 36 CFR 219.9 and 219.10, 2) a request that the Forest Service identify metrics to determine the success of plan amendments, 3) concern that making certain criteria that were guidelines or standards into “management approaches” weakens the protective methods, 4) a request that the EIS address other species that may be impacted by the actions proposed in the EIS, 5) a request that the Forest Service recognize the voluntary conservation efforts taken by operators, local conservation work, and partnerships, and 6) a request that the Other Habitat Management Areas definition should be revised to be more understandable and more closely aligned with the Nevada Greater Sage-grouse Conservation Plan.

- **Response:** In the Proposed Action Alternative, the SFA designation would be eliminated and designated as the underlying HMA designation; which was for the most part, PHMA. Applicable analyses from the 2015 GRSG FEIS and the BLM 2016 SFA Withdrawal DEIS explain the impacts of not managing areas as SFAs, and are incorporated by reference 2015 No Action Alternative (Section 4.4, Table 4-1) and proposed mineral withdrawal (Section 4.5.2). Chapter 4 - Environmental Consequences, Section 4.5.2 describes the "Elimination of SFA designations/withdrawals." Section 4.5.5 describes "Including Waivers, Exceptions, and Modifications on NSO Stipulations." It also refers to analysis incorporated by reference.

For an amendment to a plan developed or revised under a prior planning regulation, if species of conservation concern (SCC) have not been identified for the plan area..., the responsible official must determine whether such species is a potential SCC (36 CFR 219.13 (b)(6)) (Section 1.4.1), and if so, apply section 219.9(b) with respect to that species as if it were an SCC. Additional, species-specific plan components including standards or guidelines, must be included in the plan to provide such ecological conditions in the plan area. These plan components are included in Tables 2-5, 2-6, 2-7, 2-8, 2-8a, and 2-9.

The Proposed Action identifies changing the Anthro Mountain designation to PHMA designation and focusing protection in PHMAs relative to other HMA designations. In addition, the State of Utah alternative identifies eliminating GHMA and Anthro Mountain designation. The analyses for changes to habitat management designations are located in Section 4.5.1.

A management approach is a statement of the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities in the plan area. A management approach is optional content in a land management plan, is not a plan component, and can be changed, or added to or removed from a land management plan, following notice to the public. 36 CFR

219.7(e)(2), and 219.13(c). Management approaches are intended as guidance of how to meet the purpose of the amendment for situations that are outside of the decision-making process. Several plan components were identified as management approaches in the DEIS Proposed Action when it was determined that they did not meet the definition of a standard or guideline. In the FEIS, many remained as management approaches, but some were changed back to guidelines, when it was determined that they did more closely meet the definition of a guideline.

Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Often their support or opposition of the proposed action was addressed in either the No Action or State of Utah alternatives. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.12 Habitat Mapping

Comments request that the Forest Service use updated habitat area maps that reflect best available science and site-specific data. In particular, commenters state that the Forest Service should identify a consistent process to update habitat management area (HMA) maps 1) as new scientific information and monitoring data becomes available and 2) at local or national forest levels. Comments also request that current and future habitat management area maps should be consistent with the State of Wyoming current core area maps.

Respondents are mixed, however, on the role of NEPA in map updates. Some comments support continued public notice and NEPA analysis for HMA map updates, while others argue that the Forest Service should eliminate the need to conduct NEPA analysis for mapping updates, instead focusing on a different process to ensure timely updates.

- **Response:** In the GRSG Plan Amendment FEIS, HMA boundary evaluations are identified for Idaho (GRSG-GEN-MA-004-Management Approach), Nevada (GRSG-GEN-MA-006-Management Approach), Utah (GRSG-GEN-MA-010-Management Approach), and Wyoming (GRSG-GEN-O-012-Objective). A plan amendment is required to modify where one or more plan components apply to all or part of a plan area (including management areas, 36 CFR 219.13). This process would require review by the state wildlife agencies, as well as a public notification. The explanation of HMA boundary change is explained in Chapter 4, Section 4.5.1. The changes in HMA acreage are displayed in Chapter 2, Tables 2-2 through 2-4. Updated maps are included in the FEIS.

4.13 Habitat Objectives

Many comments support the removal of habitat objective tables and replacement with state-specific management guidelines and regulations. It is also stated that the Forest Service should avoid prescribing specific values for habitat objectives, as well as provide flexibility in application to fit local ecological conditions. Comments express both support and opposition to grass height requirement changes. One commenter requests that the EIS further discuss how the Habitat Assessment Framework will be used to

revise standards and guidelines to reflect specific grass-height requirements for livestock management, as well as align with local habitat conditions.

- **Response:** Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.14 Population Management

Comments encourage the development of population targets and measures, as well as request additional information on population trends in the EIS.

- **Response:** Baseline information regarding greater sage-grouse and habitat is tiered to the 2015 Greater Sage-Grouse FEIS. Chapter 3, Section 3.2.1 discloses the population status of GRSG at the state-wide level from 2014 to 2018. Greater sage-grouse populations are assessed by using trends, not numbers from single years. There are a variety of causal factors that could increase or decrease populations in any given year, but in order to determine a trend, a number of years are needed.

4.15 Livestock Grazing

Comments on livestock grazing include both support and opposition to grazing on public lands. For example, while some comments express support for Plan changes and clarifications that encourage water development, others express concern that water developments should not be approved if they would cause an adverse effect to greater sage-grouse habitat. Similarly, some comments express support or encourage further Forest Service efforts to recognize livestock grazing as a management tool for greater sage-grouse and ensure that any grazing restrictions do not impair the valid existing or threaten ranch viability. However, other comments express concern that proposed plan amendments reduce protective measures regarding the construction of new permanent livestock facilities and/or identify a range of concerns regarding livestock impacts to biological resources.

Many comments encourage the Forest Service to allow for increased flexibility in grazing guidelines, as well as encourage good management decisions/practices, including grazing, rather than punishing or eliminating livestock activities. Some comments state that the Forest Service already has the adequate mechanisms in place to manage grazing in greater sage-grouse habitat and that there should be no additional restrictions on permits in the new plan. It is also stated that the Forest Service should 1) establish monitoring systems to track compliance with standards for livestock grazing, and 2) define how the agency will identify whether or not livestock grazing is a causal factor for not achieving suitable habitat conditions. Comments similarly encourage consistency with state guidelines, cooperative data-gathering and targeted grazing techniques in the EIS and grazing plans, as well as highlight management actions where additional scientific evidence is needed to support restrictions, such as livestock trailing, bedding sheep, and sheep camps.

Other grazing comments include requests for additional information on 1) the habitat assessment process, including frequency and location, 2) a process for temporary nonrenewable permitting or access to additional forage and conversion to active grazing preference if the criteria in the Plan is met, and 3) the

percentage of Allotment Management Plans or grazing permits that have incorporated the standards of the forest plans.

- **Response:** In the GRSG Plan Amendment FEIS, Chapter 3, Section 3.2.6 describes best available science and includes citations for new or updated literature that was reviewed and incorporated since the 2015 GRSG ROD. This section discusses the relationship between residual grass height and levels of grazing use and identified that "(r)esearch suggests that moderate livestock grazing or less in mid to late summer, fall, or winter is generally compatible with the maintenance of perennial grasses and forbs in sagebrush habitat. Moderate use has traditionally been defined as occurring within the range of 40-60% utilization by weight...". Chapter 3, Tables 3-6, 3-7, 3-8, and 3-9 disclose the existing Forest LMP grazing use levels and whether they are consistent with GRSG research; which, with few exceptions, they are. With the exception of the Challis National Forest, which is currently in Plan Revision, the current Forest Plans support grazing use levels that are consistent with maintaining suitable GRSG habitat conditions. During 2016 and 2017, National Forests included in the 2015 Greater Sage-Grouse Plan Amendments measured droop and stubble heights on 2,965 sites. Where sampling occurred, data indicate that management of livestock grazing based on pre-2015 GRSG ROD direction included in Forest Plans, current term grazing permits, and project area grazing decisions provides for the stated droop height and stubble height provisions from the RODs (Tables 3-5, 3-6, 3-7, 3-8, 3-9). Measurements taken in the Challis NF (Table 3-5), indicate that suitable habitat conditions for GRSG are being maintained. A full range of livestock grazing alternatives were analyzed in the 2015 GRSG FEIS. Analyses are incorporated by reference and the location of the analyses are identified in Table 4-2. Monitoring data specific to the Humboldt-Toiyabe National Forest indicate that many riparian areas and mesic meadows in HMAs are not in proper functioning condition or moving toward desired conditions for greater sage-grouse brood-rearing habitat. Additional plan components are included in the Nevada proposed action to address this issue.

If grazing is determined to be a causal agent for less than suitable habitat conditions, Forests may implement specific management changes on those respective allotments. It is more appropriate to address these issues at the forest or allotment level rather than through grazing guidelines applied at a regional scale.

Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.16 Fire and Fuels

Many comments express support for the Forest Service's emphasis on controlling invasive species, including early detection and rapid response strategies. Comments also support the use of targeted livestock grazing and prescribed fire as management tools, as well as the use of non-native plants in combination with native species for habitat restoration. However, some respondents express concern that proposed fire and fuel management actions will not restore greater sage-grouse habitat.

Other fire and fuel comments include requests that the Forest Service:

- incorporate measures to minimize the risk of human-caused fires,
- disclose impacts from vegetation treatment to sagebrush and greater sage-grouse in the EIS,
- coordinate with local, state, and federal agencies and government to maximize invasive plant and fire management efforts, as well as evaluate wildfire initial attack efficacy and form partnerships with state and local agencies to improve firefighting programs,
- revise the 2018 EIS to be consistent with President Trump’s December 21, 2018, Executive Order entitled “Promoting Active Management of America’s Forests, Rangelands, and other Federal Lands to Improve Conditions and Reduce Wildfire Risks,”
- expand cheatgrass/invasive control beyond PHMA, and
- address the benefits of fuel breaks versus loss of sagebrush cover and risk on invasive weeds and annual grasses.

- **Response:** Vegetation treatments and wildfire response were analyzed in the 2015 GRSG FEIS and did not require additional analysis because no significant new information has emerged (Chapter 1, Section 1.5.4). National livestock grazing policies were evaluated, but not included, in the 2015 GRSG FEIS and are not carried forward in the GRSG Plan Amendment FEIS (Section 1.5.4). Grazing systems are outside scope of this amendment.

The use of native plant species for reseeded is identified, as is the use of non-native plant species if they will not degrade (not invasive or persistent) greater sage-grouse habitat. Reseeding projects on NFS lands must comply with FSM 2070- Vegetation Ecology.

Invasive species are discussed in Chapter 3, Section 3.2.2 Vegetation. Invasive species were added as forest plan components or management approaches in all states. The location of the cumulative effect’s analysis in the 2015 GRSG FEIS are disclosed in Table 4-12. Treatment of annual grasses is not limited to PHMA; rather, treatment of annual invasive and noxious plant species is being emphasized in PHMAs.

The GRSG Plan Amendment is compliant with the December 21, 2018 EO "Promoting Active Management of America's Forests, Rangelands, and other Federal Lands to Improve Conditions and Reduce Wildfire Risks".

Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here:

https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.17 Predation

Comments state that the Forest Service should address predator control and management solutions. Additional specific recommendations include 1) defining “human subsidies” in relation to predator discussion, 2) adding a management approach to support predator control in the Idaho plan, and 3) adding management actions that increase removal of corvid nests or track closely with the Western Association of Fish and Wildlife Agencies white paper.

- **Response:** Predator control was evaluated, but not included, in the 2015 GRSG FEIS and, for the same reasons, was not carried forward in the 2019 GRSG Plan Amendment FEIS (Chapter 1, Section 1.5.4). In Nevada, GRSG-P-MA-106-Management Approach identifies that efforts by other agencies to minimize impacts from predators should be supported by the FS.

4.18 Wild Horses and Burros

Wild horse and burro comments include a request that plan amendments 1) protect wild horses and burros, 2) more fully analyze management impacts to wild horses and burros, including consideration of potential management solutions, 3) apply grazing guidelines to these species, and 4) consider removal of the species from habitat if standards are not met.

- **Response:** Wild horses and burros were analyzed in the 2015 GRSG FEIS and that analysis was incorporated by reference into the 2019 GRSG Plan Amendment FEIS (Chapter 4, Table 4-1). Wild horse and burro plan components were removed from Idaho because there are no Herd Management Areas within the NFS plan area in Idaho. In Nevada, GRSG-HB-DC-062-Desired Condition through GRSG-HB-MA-066-Management Approach address wild horse and burro management.

4.19 Adaptive Management

Comments express both opposition and support for adaptive management and causal factor analysis. Some respondents indicate that causal factor analysis could result in delays for enforcement, as the EIS does not disclose how long this process will take nor what the Forest Service will do in the interim. Concern is also expressed that the Forest Service ensure that rights under the Mining Law, MUSYA, National Forest Management Act, Forest Service’s Organic Act, and Federal Land Management and Policy Act are maintained in the event of a change in management due to an adaptive management trigger.

In general, many comments encourage plan flexibility and coordination with state and local groups in applying adaptive management processes, such as providing additional information on the role and membership of the Adaptive Management Group, as well as ensuring comprehensive stakeholder representation. It is stated that the Forest Service should ensure that plan amendments are consistent with state plans and BLM language and that the FEIS provide a process in all states for reviewing or reverting to an adaptive management response when a causal factor is resolved. Comments are mixed on appropriate triggers for adaptive management, however. One comment requests that the Forest Service

develop adaptive management metrics (triggers) based on priority (core) habitat, while another states that the metric should be population declines from the 2011 baseline.

- **Response:** Each state has a state-specific Adaptive Management Strategy which accounts for differences in greater sage-grouse populations and habitats within each state and are located in the Appendices (Colorado: Appendix B; Idaho: Appendix C; Nevada: Appendix D; Utah: Appendix E; Wyoming: Appendix F). Hard and soft population and habitat triggers for each state and the makeup of the technical review team are identified in the respective Appendices. Coordination with an interagency team, which would include both FWS and the respective state agencies, would be required under the adaptive management and mitigation processes (Chapter 4, Section 4.5.5). The teams (respective of state) would evaluate and determine analysis scale, population and habitat warnings and triggers, causal factors, response, and monitoring process and would recommend additional implementation-level activities to the appropriate agency line officer. Determination of causal factors is intended to improve response by identifying the most biologically effective responses rather than make assumptions before a trigger is hit. Identifying causal factors does not imply delaying action but focusing on the most effective actions and includes reverting back to prior management once the identified causal factor is resolved.

Baseline information regarding greater sage-grouse and habitat is tiered to the 2015 GRSG FEIS. Chapter 3, Section 3.2.1 discloses the population status of GRSG at the state-wide level from 2014 to 2018. Greater sage-grouse populations are assessed by using trends, not numbers from single years. There are a variety of causal factors that could increase or decrease populations in any given year, but in order to determine a trend, a number of years are needed. For state specific population measures and scales used to determine population trends, refer to the respective Appendix.

4.20 Mitigation

Comments are mixed on mitigation. Many comments encourage the Forest Service to retain the net conservation gain mitigation standard and the use of compensatory mitigation in plan amendments. However, other comments express support for a “no net loss” approach to mitigation. Many of these latter comments encourage state and local coordination and consistency with state mitigation plans, such as for the use of Nevada’s Habitat Quantification Tool and Conservation Credit System. Other mitigation comments include a request that the Forest Service:

- Address the U.S. Department of the Interior’s prohibition against compensatory mitigation.
- Not hold Nevada to a higher standard of mitigation than other states.
- Define the scale used to evaluate “No Net Habitat Loss.”
- Provide adaptive, not rigid, mitigation standards and set forth requirements on principles for compensatory mitigation. Comments provide varied perspectives on what principles should guide this process. Comments also state that the Forest Service should employ a variety of tools and processes to track and ensure effective compensatory mitigation implementation.

- Discuss the process that the state uses and how long it may take for conservation credits to be generated and for those credits to be approved and then purchased.
 - **Response:** Compensatory mitigation is defined as "compensating for the residual impact of a certain action or parts of an action by replacing or providing substitute resources or environments(s)" and must be "durable, timely, and in addition to that which would have resulted without the compensatory mitigation" (Chapter 2, Table 2-5; Appendix B; Appendix C; Appendix D; Appendix E; Appendix F). The decision for each state as to have net conservation gain remain or change to no net loss was done to align with the respective state plan. In Nevada, net conservation gain was analyzed in Alternative E in the 2015 GRSG FEIS and remains in place for the No Action Alternative and the Proposed Action.

Compensatory mitigation does not apply to locatable minerals; refer to standards for each state under Locatable Minerals in the FEIS.

The Forest Service is under the U.S. Department of Agriculture. Direction from the U.S. Department of the Interior regarding compensatory mitigation does not apply to National Forest System lands.

4.21 Transportation

Transportation-related comments include concerns expressed by commenters that proposed travel restrictions unlawfully interfere with statutory access rights and will create significant economic impacts within local counties. Comments also indicate that the Forest Service should promote greater management flexibility when addressing transportation-related impacts to greater sage-grouse.

- **Response:** The FS published its Travel Management Rule in 2005 and Travel Planning is complete on all National Forests included in this amendment. The rule prohibits motor vehicle use off designated system routes (Chapter 3, Table 3-1). Implementation of changes to system route season of use would follow the process identified in the respective National Forest Travel Management Plan.

4.22 Recreation

Respondents encourage the Forest Service to maintain recreation opportunities for local residents in plan amendments. Comments contain various recreation issues that commenters indicate should be addressed in the FEIS. These comments contain varied recommendations for addressing OHV and recreational access, such as the development of new recreation-based lek buffers and management plans for multiple recreation use. However, some respondents express concern that plan components that allow for recreational activity in greater sage-grouse habitat will result in adverse impacts the species.

- **Response:** In regard to motorized recreation, the FS published its Travel Management Rule in 2005 and Travel Planning is complete on all National Forests included in this amendment. The rule prohibits motor vehicle use off designated system routes (Chapter 3, Table 3-1).

Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.

4.23 Lands and Socioeconomics

Comments related to landownership and socioeconomics include the following:

- Concern is expressed that the Forest Service should do a better job to protect the property rights of private landowners and disclose the basis by which private lands can be considered in a federal land management planning document. In particular, it is stated that proposed Plan amendments inappropriately assert jurisdiction on county and private rights-of-way and fail to follow county access requirements to private property.
- Comments request that the Forest Service should allow for disposal or exchange of PHMA or GHMA lands if they contain non-suitable habitat or if mitigation can be implemented that meets the state's standard. Comments also state that the Forest Service should ensure that lands currently designated as suitable for disposal retain that status in the plan amendments.
- Concern is expressed that the EIS will adversely affect local communities and that additional socioeconomic analysis is needed in the document. Concern is also expressed that the EIS proposes to work outside of Forest Service jurisdiction by implementing law enforcement type actions.
 - **Response:** All plan components identified in the GRSG Plan Amendment FEIS and subsequent RODs would only apply to National Forest System lands. Retention of lands as identified as HMAs in federal ownership was analyzed in the 2015 GRSG FEIS and did not require additional analysis because no significant new information has emerged (Chapter 1, Section 1.5.4).

Many comments under this theme were in the nature of a position statement; the commenter was either in favor or opposed to aspects of the proposed action. Specific responses to individual comments are located in the spreadsheet located here: https://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=52904.