Bureau of Land Management

Casper, Kemmerer, Newcastle, Pinedale, Rawlins, and Rock Springs Field Offices

Approved Resource Management Plan Amendment for Greater Sage-Grouse

Prepared by
U.S. Department of the Interior
Bureau of Land Management
Wyoming State Office

September 2015

State Director Recommendation for Approval

I hereby recommend for approval this resource management plan amendment.

Mary Jo Rugwell, Acting Wyoming State Director — Date: 9/15/15

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List of Acronyms

ACEC	Area of Critical Environmental Concern
AML	Appropriate Management Level
AMP	Allotment Management Plan
AMR	Appropriate Management Response
AO	Authorized Officer
APD	Application for Permission to Drill
APHIS-WS	Animal and Plant Health Inspection Service—Wildlife Services
ARMPA	Approved Resource Management Plan Amendment
AUM	Animal Unit Months
BA	Biological Assessment
BAER	Burn Area Emergency Rehabilitation
BAR	Burned Area Rehabilitation
BF	Board Feet
BLM	Bureau of Land Management
BMP	Best Management Practices
BOR	Bureau of Reclamation
BpS	Biophysical Setting
BTNF	Bridger-Teton National Forest
CAP	Coordinated Activity Plan
CBNG	Coal Bed Natural Gas
CCAA	Candidate Conservation Agreement with Assurances
CDPA	Coal Development Potential Area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulation
CO	Carbon Monoxide
COA	Condition of Approval
COT	Conservation Objectives Team
CSU	Controlled Surface Use
dBA	A-weighted Decibel
DDCT	Density and Disturbance Calculation Tool
DOA	Department of Agriculture
DOE	Department of Energy
DOI	Department of the Interior
DPC	Desired Plant Community

EIS	Environment Impact Statement
ESD	Ecological Site Descriptions
EO	Executive Order
EPA	Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
ES&R	Emergency Stabilization and Rehabilitation
EVT	Existing Vegetation Type
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act of 1976
GHMA	General Habitat Management Area
GIS	Geographic Information System
GRSG	Greater Sage-Grouse
HAF	Habitat Assessment Framework
HMA	Herd Management Area
HMAP	Herd Management Area Plans
IDT	Interdisciplinary Team
IM	Instruction Memorandum
INRMP	Integrated Natural Resource Management Plan
JMH	Jack Morrow Hills
LAU	Lynx Analysis Unit
LBA	Lease By Application
LUP	Land Use Plan
MA	Management Area
MBNF	Medicine Bow National Forest
MET	Meteorological Towers
MOU	Memorandum of Understanding
MW	Megawatt
NAAQS	National Ambient Air Quality Standard
NAGPRA	Native American Graves Protection and Repatriation Act
NASA	National Aeronautic Space Administration
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NOA	Notice of Availability
NOI	Notice of Intent

NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
NTT	National Technical Team
OHV	Off-Highway Vehicle
PAC	Priority Areas for Conservation
PFC	Proper Functioning Condition
PHMA	Priority Habitat Management Area
PRPA	Paleontological Resource Preservation Act
RAATS	Reduced Agent-Area Treatments
RDF	Required Design Features
RFD	Reasonable Foreseeable Development
RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation opportunity spectrum
ROD	Record of Decision
ROW	Right-of-Way
SD/MA	Special Designations/Management Areas
SDW	Stock Driveways
SDWA	Safe Drinking Water Act
SFA	Sagebrush Focal Area
S&G	Standards and Guidelines
SGIT	Sage-grouse Implementation Team
SIA	Special Interest Area
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
SRP	Special Recreational Permit
SSC	Species of Special Concern
SUA	Special Use Authorization
SUPO	Surface Use Plan of Operations
T&C	Terms and Conditions
TBNG	Thunder Basin National Grassland
TCP	Traditional Cultural Properties
TLS	Timing Limitation Stipulation
USC	United States Code

USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRM	Visual Resource Management
WAFWA	Western Association of Fish and Wildlife Agencies
WGFD	Wyoming Game and Fish Department
WHMA	Wildlife Habitat Management Area
WSA	Wilderness Study Area
WSR	Wild and Scenic River
WUI	Wildland Urban Interface
WYNDD	Wyoming Natural Diversity Database

1. Introduction

The Federal Land Policy and Management Act of 1976 (FLPMA) directs the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM) to develop and periodically revise or amend its resource management plans (RMPs), which guide management of BLM-administered lands.

This Approved Resource Management Plan Amendment (ARMPA) is the result of the March 2010 U.S. Fish and Wildlife Service (USFWS) 12-Month Finding for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered (75 Federal Register 13910, March 23, 2010; USFWS 2010). In that finding, the USFWS concluded that the Greater Sage-Grouse (GRSG) was "warranted, but precluded" for listing as a threatened or endangered species.

The USFWS reviewed the status of and threats to the GRSG in relation to the five listing factors provided in Section 4(a)(1) of the ESA. The USFWS determined that Factor A, "the present or threatened destruction, modification, or curtailment of the habitat or range of the GRSG," and Factor D, "the inadequacy of existing regulatory mechanisms," posed "a significant threat to the GRSG now and in the foreseeable future" (USFWS 2010). The USFWS identified the principal regulatory mechanisms for the BLM as conservation measures in RMPs.

1.1 Description of the Wyoming Sub-Regional Planning Area

The ARMPA planning area boundary includes all lands, regardless of jurisdiction (see **Map 1-1**: **Wyoming Planning Area, Surface Management and Sub-Surface Estate**). **Table 1-1** outlines the amount of surface acres that are administered by specific federal agencies, states, local governments, and lands that are privately owned in the planning area. The planning area includes other BLM-administered lands that are not allocated as habitat management areas for GRSG. The ARMPAs do not establish any additional management for these lands; these lands will continue to be managed according to the existing, underlying land use plan for the areas.

The decision area for the ARMPA is BLM-administered lands in GRSG habitat management areas (see **Map 1-2: Wyoming Planning Area, Greater Sage-Grouse Habitat Management Areas across All Jurisdictions)**, including surface and split-estate lands with BLM subsurface mineral rights. Any decisions in the Rocky Mountain Region ARMPAs apply only to BLM-administered lands, including split-estate lands within GRSG habitat management areas (the decision area). These decisions are limited to providing land use planning direction specific to conserving GRSG and its habitat.

GRSG habitat on BLM-administered lands in the decision area consists of lands allocated as Priority Habitat Management Areas (PHMA) and General Habitat Management Areas (GHMA) (see **Table 1-2**).

PHMA and GHMA are defined as follows:

- PHMA—BLM-administered lands identified as having the highest value to maintaining sustainable GRSG populations. Areas of PHMA largely coincide with areas identified as Priority Areas for Conservation in the USFWS's COT report (USFWS 2013). These areas include breeding, late brood-rearing, winter concentration areas, and migration or connectivity corridors.
- GHMA—BLM-administered lands where some special management will apply to sustain GRSG populations. Areas of occupied seasonal or year-round habitat outside of PHMAs.

The ARMPA also identifies specific Sagebrush Focal Areas (SFA), which are an allocation that is a subset of PHMA (see **Map 1-3: Wyoming Decision Area, Greater Sage-Grouse Habitat Management Areas for BLM Administered Lands)**. The SFA was derived from GRSG stronghold areas described by the USFWS in a memorandum to the BLM titled Greater Sage-Grouse: Additional Recommendations to Refine Land Use Allocations in Highly Important Landscapes (USFWS 2014). The memorandum and associated maps provided by the USFWS identify areas that represent recognized strongholds for GRSG that have been noted and referenced as having the highest densities of GRSG and other criteria important for the persistence of the species.

PHMA (including SFA) and GHMA on BLM-administered lands in the decision area fall within 15 counties in Wyoming (see **Table 1-3**). The habitat management areas also span across two BLM district offices and six BLM field offices (see **Table 1-4**).

The following BLM RMPs are hereby amended to incorporate appropriate GRSG conservation measures:

- Casper RMP (BLM 2007)
- Kemmerer RMP (BLM 2010)
- Newcastle RMP (BLM 2000)
- Pinedale RMP (BLM 2008a)
- Rawlins RMP (BLM 2008b)
- Rock Springs—Green River RMP (BLM 1997a) and Jack Morrow Hills (JMH) Coordinated Activity Plan (CAP) (BLM 2006).

Table 1-1
Land Management in the Planning Area

Surface Land Management	Total Surface Land Management Acres
Bureau of Land Management (BLM)	11,133,600
Forest Service (USFS)	4,671,100
National Grasslands (managed by USFS)	242,100
Bankhead Jones (managed by USFS)	310,000
Fish & Wildlife Service	46,200
National Park Service	10,800
Department of Defense	57,800
Bureau of Reclamation	244,800
Other Federal Agencies	11,800
State Lands	2,406,600
State Parks and Historic Sites	31,200
Wyoming Game & Fish Department	84,400
Local Government	9,200
Private Lands	19,286,800
Total acres	**38,546,400**

Source: BLM Wyoming State Office GIS 2015

Table 1-2
Acres of PHMA and GHMA in the Decision Area for the ARMPA

Surface Land Management	Priority Habitat Management Areas	General Habitat Management Areas
BLM-administered Surface Estate	4,895,100	6,032,500
BLM-administered Mineral Estate	6,929,000	13,416,700
Source: BLM Wyoming State Office GIS 2015 PHMA: Priority Habitat Management Areas GHMA: General Habitat Management Areas		

Table 1-3
Acres of GRSG Habitat by County in the Decision Area (BLM Lands only)

ARMPA				
	Priority Habitat Management Area[2]		General Habitat Management Area	
County Name [1]	BLM Surface Estate	BLM Mineral Estate	BLM Surface Estate	BLM Mineral Estate
Albany	97,600	216,000	130,100	398,000
Campbell	-	52,800	-	86,100
Carbon	943,900	1,250,300	1,115,500	1,257,800
Converse	25,400	238,800	97,900	1,197,200
Crook	28,700	78,300	50,100	316,200
Fremont	161,300	169,500	8,400	15,800
Goshen	-	-	100	900
Laramie	-	-	3,900	22,800
Lincoln	438,300	478,000	525,400	610,200
Natrona	710,900	1,366,300	413,400	1,004,300
Niobrara	35,100	118,300	80,200	465,900
Park	-	-	-	-
Platte	-	-	10,600	44,500
Sublette	696,000	894,200	553,800	753,300
Sweetwater	1,581,300	1,625,400	2,684,300	2,680,700
Teton	-	44,500	-	146,800
Uinta	159,100	168,300	319,700	402,500
Weston	17,500	320,000	39,100	378,400
Grand Total	4,895,100	7,020,700	6,032,500	9,781,400

Source: BLM Wyoming State Office GIS 2015
[1]The following counties in the planning area do not contain mapped GRSG habitat: Park County. The following counties in the planning area do not contain BLM-managed surface: Campbell, Park and Teton Counties.
[2]PHMA acres in the proposed plan include 1,909,900 acres in Carbon, Fremont, Lincoln, Natrona, Sublette, and Sweetwater Counties associated with SFAs.

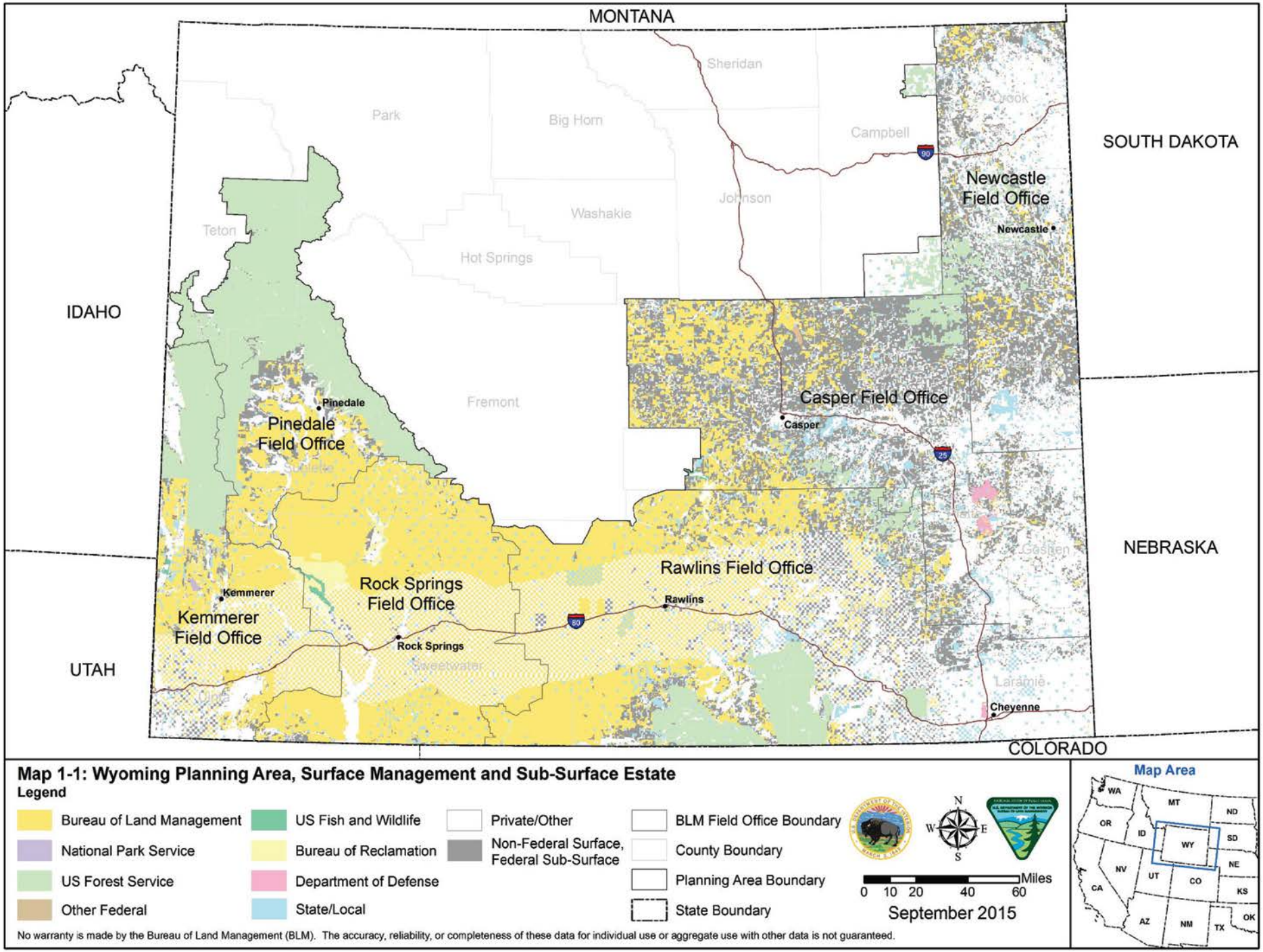
Table 1-4
Acres of GRSG Habitat by BLM Field Office in the Decision Area (BLM Lands only)

BLM Office	ARMPA		
	PHMA[1]	GHMA	TOTAL
Casper Field Office	736,300	522,000	1,258,300
Kemmerer Field Office	619,000	782,100	1,401,100

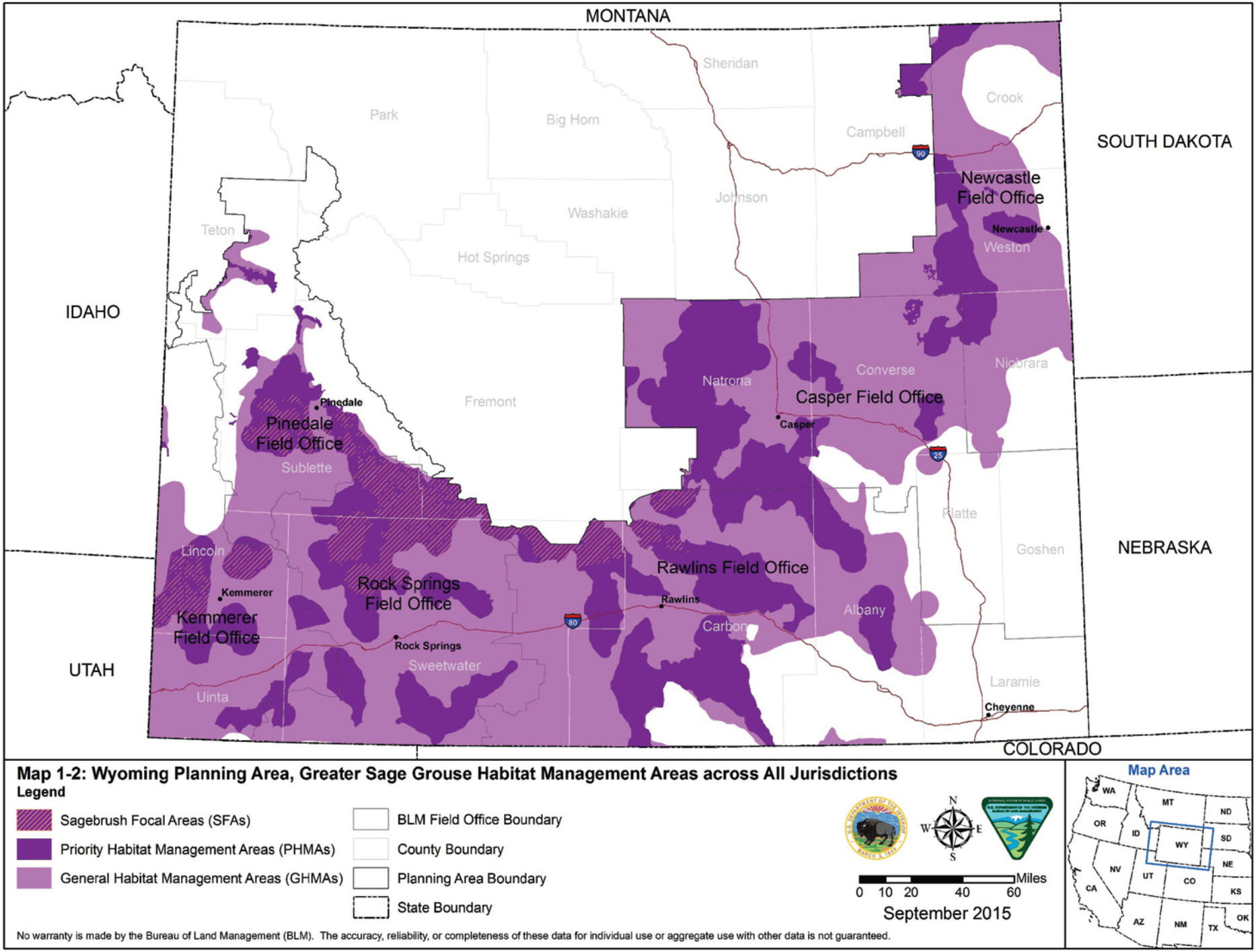
Table 1-4
Acres of GRSG Habitat by BLM Field Office in the Decision Area
(BLM Lands only)

BLM Office	ARMPA		
	PHMA[1]	GHMA	TOTAL
Newcastle Field Office	81,300	169,400	250,700
Pinedale Field Office	351,800	557,900	909,700
Rawlins Field Office	1,434,000	2,075,500	3,509,500
Rock Springs Field Office	1,672,700	1,925,600	3,598,300
Total Acres	**4,895,100**	**6,032,500**	**10,927,600**

Source: BLM Wyoming State Office GIS 2015
[1]Includes 1,909,900 acres of SFAs in the Casper Field Office, Kemmerer Field Office, Pinedale Field Office, Rawlins Field Office, and Rock Springs Field Office.



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



Map 1-2: Wyoming Planning Area, Greater Sage Grouse Habitat Management Areas across All Jurisdictions

Legend

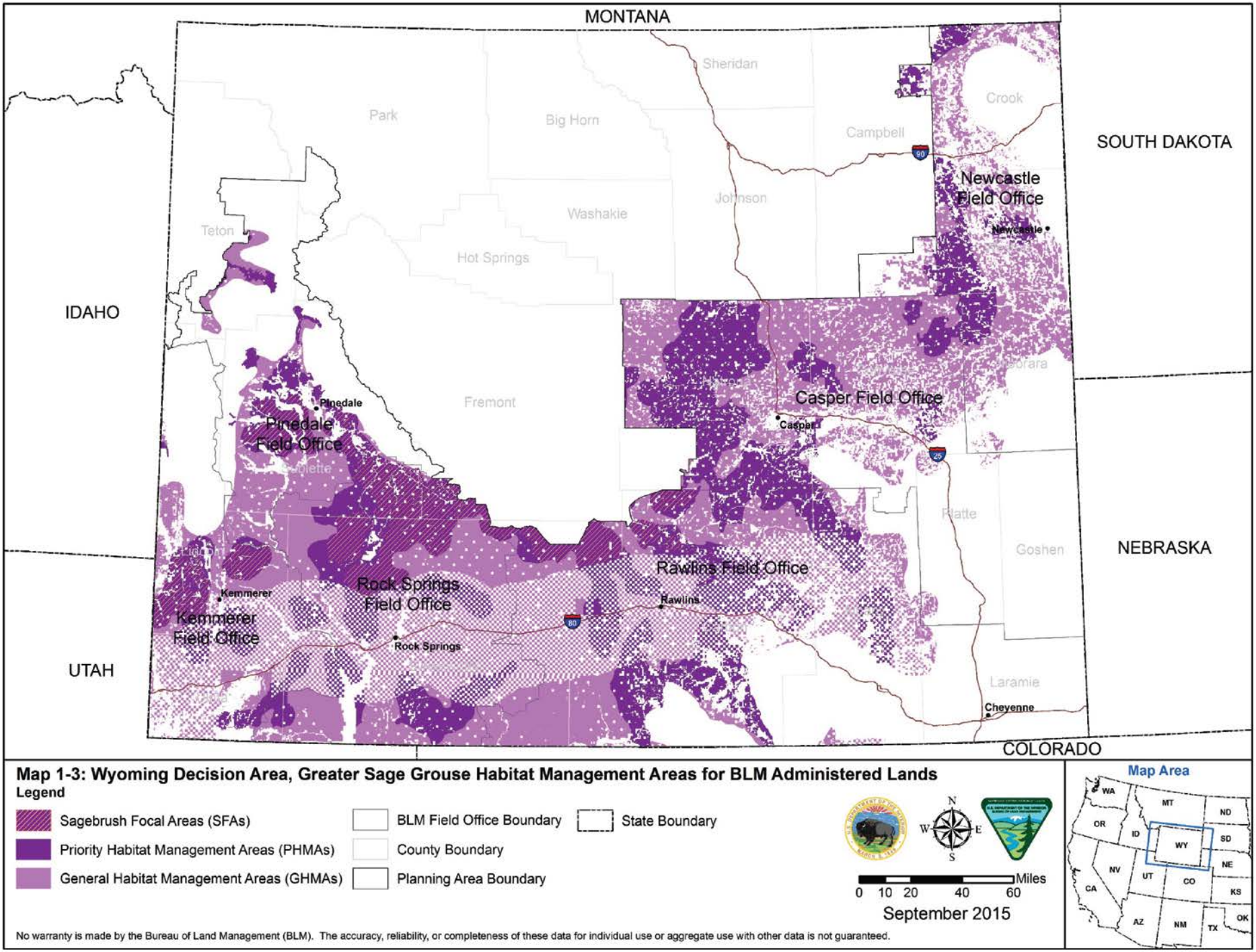
- Sagebrush Focal Areas (SFAs)
- Priority Habitat Management Areas (PHMAs)
- General Habitat Management Areas (GHMAs)
- BLM Field Office Boundary
- County Boundary
- Planning Area Boundary
- State Boundary

N W E S

0 10 20 40 60 Miles

September 2015

Map Area


MONTANA
SOUTH DAKOTA
IDAHO
NEBRASKA
UTAH
COLORADO
Sheridan
Crook
Park
Big Horn
Campbell
Johnson
Washakie
Teton
Hot Springs
Fremont
Converse
Platte
Goshen
Laramie
Newcastle Field Office
Newcastle
Casper Field Office
Casper
Pinedale
Pinedale Field Office
Rawlins Field Office
Rawlins
Rock Springs Field Office
Rock Springs
Kemmerer
Kemmerer Field Office
Cheyenne
Map 1-3: Wyoming Decision Area, Greater Sage Grouse Habitat Management Areas for BLM Administered Lands
Legend
Sagebrush Focal Areas (SFAs)
Priority Habitat Management Areas (PHMAs)
General Habitat Management Areas (GHMAs)
BLM Field Office Boundary
County Boundary
Planning Area Boundary
State Boundary
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Miles
September 2015
Map Area
WA
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TX
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1.2 Purpose and Need

The BLM has prepared this ARMPA with an associated EIS to amend RMPs for Field Offices/District Offices containing GRSG habitat. This planning process is needed to respond to the USFWS's March 2010 "warranted, but precluded" ESA listing petition decision for GRSG. The USFWS identified (1) the present or threatened destruction, modification, or curtailment of habitat or range and (2) the inadequacy of existing regulatory mechanisms as significant threats, and identified the principal regulatory mechanisms for the BLM as conservation measures incorporated into land use plans. The purpose for the ARMPA is to identify and incorporate appropriate measures in existing land use plans to enhance, and restore GRSG habitat by avoiding, minimizing, or compensating for unavoidable impacts to GRSG habitat in the context of the BLM's multiple use and sustained yield mission under FLPMA. Changes in management of GRSG habitats are necessary to avoid the continued decline of populations across the species' range. This ARMPA focuses on areas affected by threats to GRSG habitat identified by the USFWS in the March 2010 listing decision and in the USFWS 2013 COT Report.

The major threats to GRSG or GRSG habitat on BLM-administered lands in the Wyoming sub-region are the following:

- Oil and gas development—fragmentation of GRSG habitat due to mineral exploration and development
- Hard rock mining—fragmentation of GRSG habitat due to mineral exploration and development
- Infrastructure—fragmentation of GRSG habitat due to human development activities, such as rights-of-way (ROW) and renewable energy development
- Invasive species—conversion of GRSG habitat to cheatgrass-dominated plant communities
- Wildfire—loss of large areas of GRSG habitat due to wildfire
- Conifer invasion—encroachment of pinyon or juniper into GRSG habitat
- Grazing—loss of habitat components due to improper livestock grazing
- Human uses—fragmentation of GRSG habitat or modification of GRSG behavior due to human presence and activities.

Because the BLM administers a large portion of GRSG habitat in the affected states, changes in GRSG habitat management are anticipated to have a considerable beneficial impact on present and future GRSG populations.

1.3 Wyoming Sub-regional GRSG Conservation Summary

The ARMPA identifies and incorporates measures to conserve, enhance, and restore GRSG habitat by avoiding, minimizing, and compensating for unavoidable impacts of threats to GRSG habitat. The ARMPA addresses threats to GRSG and its habitat identified by the GRSG National Technical Team (NTT), by the USFWS in the March 2010 listing decision, as well as those threats described in the USFWS's 2013 Conservation Objectives Team (COT) report. Per the COT Report, the USFWS identified threats by GRSG population across the range and stated whether that threat is present and widespread, present but localized, or unknown for that specific population. **Table 1-5** identifies the GRSG populations and the threats identified by the COT contained within the Wyoming Sub-region.

Table 1-5
Threats to GRSG in the Wyoming Sub-region as Identified by the Conservation Objectives Team (COT 2013)

Threats are characterized as: Y = threat is present and widespread, L = threat present but localized, N = threat is not known to be present, and U = unknown.

GRSG Identified Populations from the COT Report Applicable to the Wyoming Sub-region	Unit Number	Isolated Small Size	Sagebrush Elimination	Agriculture Conversion	Fire	Conifers	Weeds/Annual Grasses	Energy	Mining	Infrastructure	Improper Grazing	Free-Roaming Equids	Recreation	Urbanization
Management Zone I: Great Plains														
Powder River Basin (WY)		N	L	N	L	L	**Y**	**Y**	**Y**	**Y**	**Y**	N	**Y**	L
Management Zone II: Wyoming Basin														
Jackson Hole (WY)		**Y**	L	N	L	L	**Y**	N	N	N	N	N	**Y**	L
Wyoming Basin (WY portion)		N	L	N	L	L	L	**Y**	L	**Y**	**Y**	L	**Y**	L
Laramie (WY, CO)		**Y**	N	N	**Y**	**Y**	**Y**	**Y**	U	**Y**	**Y**	N	**Y**	**Y**
N. Park (WY Basin in CO)		N	**Y**	**Y**	**Y**	N	**Y**	**Y**	**Y**	**Y**	**Y**	N	**Y**	**Y**

Table 1-6 provides a crosswalk as to how the ARMPA for the Wyoming Sub-region addresses the threats from the COT Report.

Table 1-6
Key Components of the Wyoming GRSG ARMPA
Addressing COT Report Threats

Threats to GRSG and its Habitat (from COT Report)	Key Component of the Wyoming ARMPA
All threats	• Implement the Adaptive Management Plan, which provides regulatory assurance that unintended negative impacts to GRSG habitat will be addressed before consequences become severe or irreversible. • PHMA: Require and ensure mitigation that provides a net conservation gain to GRSG for actions that result in habitat loss and degradation.
All development threats, including mining, infrastructure, and energy development.	• PHMA: Implement an anthropogenic disturbance cap of 5% at the project-area scale. • PHMA: Implement a density cap of an average of one energy and mining facility per 640 acres.

Table 1-6
Key Components of the Wyoming GRSG ARMPA
Addressing COT Report Threats

Threats to GRSG and its Habitat (from COT Report)	Key Component of the Wyoming ARMPA
	• PHMA: Surface occupancy and surface-disturbing activities would be prohibited on or within a 0.6-mile radius of the perimeter of occupied GRSG leks. • GHMA: Surface occupancy and surface-disturbing activities would be prohibited on or within a 0.25-mile radius of the perimeter of occupied GRSG leks. • Monitor implementation and effectiveness of conservation measures in GRSG habitats according to the Habitat Assessment Framework. • Apply Required Design Features (RDFs) when authorizing actions that affect GRSG habitat. • Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.
Energy development—fluid minerals, including geothermal resources	• PHMA: Open to fluid mineral leasing subject to No Surface Occupancy (NSO) stipulations within 0.6 miles of an occupied lek, and Timing Limitation (TL) stipulations from March 15 to June 30. • GHMA: Open to fluid mineral leasing subject to NSO within 0.25 miles of an occupied lek and TL stipulations. • Prioritize the leasing and development of fluid mineral resources outside GRSG habitat.
Energy development—wind energy	• PHMA: Avoidance area (may be available for wind energy development with special stipulations).
Infrastructure—major ROWs	• PHMA: Avoidance area (may be available for major ROWs with special stipulations).
Infrastructure—minor ROWs	• PHMA: Avoidance area (may be available for minor ROWs with special stipulations).
Mining—locatable minerals	• SFAs: 252,160 acres would be recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights
Mining—coal	• PHMA is essential habitat for GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).
Improper livestock grazing	• Prioritize the review and processing of grazing permits/leases in SFAs followed by PHMA. • The NEPA analysis for renewals and modifications of grazing permits/leases will include specific management thresholds, based on the GRSG Habitat Objectives Table, Land Health Standards and ecological site potential, to allow adjustments to grazing that have already been subjected to NEPA analysis. • Prioritize field checks in SFAs followed by PHMA to ensure compliance with the terms and conditions of grazing permits.

Table 1-6
Key Components of the Wyoming GRSG ARMPA
Addressing COT Report Threats

Threats to GRSG and its Habitat (from COT Report)	Key Component of the Wyoming ARMPA
Free-roaming equid management	• PHMA: Review and consider amending BLM Herd Management Area Plans to incorporate GRSG habitat objectives and management considerations for all BLM herd management areas.
Range management structures	• Allow range improvements which do not impact GRSG, or which provide a conservation benefit to GRSG such as fences for protecting important seasonal habitats.
Recreation	• PHMA: Do not construct new recreation facilities.
Fire	• PHMA: Fuels treatments would be designed and implemented with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems.
Nonnative, invasive plant species	• Integrated vegetation management would be used to control, suppress, and eradicate, where possible, noxious and invasive species. Manage weed treatments to maintain and improve GRSG habitat.
Sagebrush removal	• PHMA: Maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. • All BLM use authorizations will contain terms and conditions regarding the actions needed to meet or progress toward meeting the habitat objectives for GRSG.
Pinyon and/or juniper expansion	• Remove conifers encroaching into sagebrush habitats in a manner that considers tribal cultural values, prioritizing occupied GRSG habitat.
Agricultural conversion and urban development	• Retain the majority of PHMA in federal management.

The ARMPA also identifies and incorporates measures for other uses and resources that are designed to conserve, enhance, and restore GRSG habitat. Specifically, the ARMPA requires the following summarized management decisions, subject to valid existing rights:

- Providing a framework for prioritizing areas in PHMA and GHMA for wildfire, invasive annual grass, and conifer treatments
- Reducing habitat disturbance and fragmentation through limitations on surface-disturbing activities
- Adapting to resource and use changes through monitoring and adaptive management
- Including GRSG habitat objectives in land health standards.

The ARMPA also establishes screening criteria and conditions for new anthropogenic activities in PHMAs and GHMAs and requires a net conservation gain for sage-grouse populations and habitat, consistent with the State of Wyoming Core Area Strategy. The ARMPA will reduce habitat disturbance and fragmentation through limitations on surface-disturbing activities, while addressing changes in resource condition and use through monitoring and adaptive management.

The ARMPA is built upon the foundation for GRSG management established by and complementary to the Governor's Executive Order 2011-05, Greater Sage Grouse Core Area Protection (Core Area Strategy), State of Wyoming Executive Department (2011), by establishing similar conservation measures and focusing

restoration efforts in the same key areas most valuable to the GRSG. On July 29, 2015, the State of Wyoming issued Executive Order 2015-4 which replaced Executive Orders 2011-5 and 2013-3. Through the Governor's Consistency Review of the Plan, it was determined that guidance and recommendations provided in EO 2015-4 were consistent with Proposed RMP issued on May 29, 2015. Therefore, throughout the plan, references to the State of Wyoming's Core Area Protection strategy were updated to reference EO 2015-4. In addition, EO 2015-4 modified the Core Area boundaries, the boundary changes are inconsistent with the maps and acreages presented in the Proposed RMP and therefore EO 2011-5 remains the reference for the Core Area boundaries. The plan is designed to protect GRSG and its habitat within core areas using a suite of tools and mechanisms that work in concert to conserve sage-grouse by reducing habitat loss and fragmentation through lek buffers, disturbance limits, excluding activities, and a sophisticated mapping utility to monitor the amount and density of disturbance. The plan provides consistent GRSG habitat management across the range, prioritizes development outside of GRSG habitat, and focuses on a landscape-scale approach to conserving GRSG habitat.

For a full description of the BLM's ARMPA, see **Section 2**.

1.4 Planning Criteria

Planning criteria are based on appropriate laws, regulations, BLM manual and handbook sections, and policy directives. Criteria are also based on public participation and coordination with cooperating agencies, other federal agencies, state and local governments, and Native American tribes. Planning criteria are the standards, rules, and factors used as a framework to resolve issues and develop alternatives. Planning criteria are prepared to ensure decision-making is tailored to the issues and to ensure that the BLM avoids unnecessary data collection and analysis. Preliminary planning criteria were included in the Draft RMPA/Draft EIS and were further refined for the Proposed RMPA/Final EIS.

Planning criteria carried forward for this ARMPA are as follows:

- The ARMPA is in compliance with FLPMA, and all other applicable laws, regulations, and policies.
- Impacts from the alternatives were analyzed in accordance with regulations at 43 CFR 1610, 36 CFR 219, and 40 CFR 1500.
- Lands covered in the ARMPA are public land managed by the BLM within the designated planning areas. No decisions have been made relative to non-BLM lands.
- The ARMPA recognizes the state's responsibility and authority to manage wildlife population numbers and the BLM's responsibility to manage habitat; a coordinated effort is necessary to meet both agency's objectives.
- The ARMPA incorporates management decisions brought forward from existing planning documents whenever possible. Where more restrictive land use allocations or decisions are made in existing RMPs, those more restrictive land use allocations or decisions remain in effect and are not amended by the ARMPA.
- The planning team worked cooperatively and collaboratively with cooperating agencies and all other interested groups, agencies, and individuals.
- The BLM and cooperating agencies jointly developed alternatives for resolution of common resource management issues and management concerns.
- GIS and metadata information meet Federal Geographic Data Committee (FGDC) standards, as required by EO 12906. All other applicable BLM data standards were followed.
- All management actions were based on the best available, current, scientific information, research and technology, and inventory and monitoring information.
- The ARMPA includes adaptive management criteria and protocol to address future issues.
- The planning process used mitigation to develop management options and alternatives. The EIS analyzed the impacts, and were part of the planning criteria for developing the options and alternatives and for determining mitigation requirements.

- The BLM utilized the Western Association of Fish and Wildlife Agencies (WAFWA) *Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats* (Connelly, *et al.* 2004), and any other appropriate resources, to identify GRSG habitat requirements and best management practices.
- The ARMPA is consistent with the BLM's National Sage-Grouse Conservation Strategy.
- The ARMPA complies with NEPA and Council on Environmental Quality regulations at DOI regulations at 43 CFR part 46 and 43 CFR part 1600; the 2008 BLM NEPA Handbook (H–1790–1), and all other applicable BLM policies and guidance.
- The ARMPA is limited to making land use planning decisions specific to the conservation of GRSG habitat.
- The BLM considered allocative and/or prescriptive standards to conserve GRSG habitat, as well as objectives and management actions to restore, enhance, and improve GRSG habitat.
- The BLM used a collaborative and multi-jurisdictional approach, where appropriate, to determine the desired future condition of public lands for the conservation of GRSG and their habitat.
- As described by law and policy, the BLM endeavored to ensure that conservation measures are as consistent as possible with other planning jurisdictions within the planning area boundaries.
- The BLM addressed socioeconomic impacts of the alternatives. Socio-economic analysis used IMPact analysis for PLANning (IMPLAN) and Jobs and Economic Development Impact (JEDI), accepted input-output quantitative models, for renewable energy analysis.
- Management of GRSG habitat that intersected with Wilderness Study Areas (WSAs) on public lands administered by the BLM was guided by the BLM Manual 6330, Management of WSAs. Land use allocations made for WSAs are consistent with BLM Manual 6330 and with other laws, regulations, and policies related to WSA management.
- The BLM consulted with Federally Recognized Native American Tribes to identify sites, areas, and objects important to their cultural and religious heritage within GRSG habitat.
- The BLM coordinated and communicated with state, local, and tribal governments. These efforts ensured that the BLM considered provisions of pertinent plans, resolved inconsistencies, and provided ample opportunities for state, local, and tribal governments to comment on the development of ARMPA.
- The most current approved BLM corporate spatial data was supported by current metadata and used to ascertain GRSG habitat extent and quality. Data are consistent with the principles of the Information Quality Act of 2000.
- Wyoming Game and Fish Department's GRSG data and expertise were utilized in making management decisions.
- For BLM-administered lands, all activities and uses within GRSG habitat conform to existing land health standards. Standards and guidelines (S&G) for livestock grazing and other programs that developed guidelines are applicable to all alternatives for BLM lands.

2. Approved Resource Management Plan Amendment

2.1 Approved Resource Management Plan Amendment Instructions

This ARMPA is now the baseline plan for management for GRSG in Wyoming in the High Desert and the High Plains District Offices. The ARMPA adopts the management for the BLM described in the Wyoming Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement (2015), with modifications and clarifications as described in the Modifications and Clarifications section of the record of decision (ROD).

In the event there are inconsistencies or discrepancies between previously Approved RMPs and this ARMPA, the decisions contained in this ARMPA will be followed unless there are more restrictive decisions in the existing plans. The more restrictive decisions in the existing plans will be implemented. The BLM will continue to tier to statewide, national, and programmatic EISs and other NEPA and planning documents, as well as consider and apply RDFs or other management protocols contained in other planning documents after appropriate site-specific analysis.

All future resource authorizations and actions in GRSG habitat will conform to, or be consistent with, the decisions contained in this ARMPA. All existing operations and activities authorized under permits, contracts, cooperative agreements or other authorizations will be modified, as necessary and appropriate, to conform to this plan amendment within a reasonable timeframe. However, this ARMPA does not repeal valid existing rights on public lands. A valid existing right is a claim or authorization that takes precedence over the decisions developed in this plan. If such authorizations come up for review and can be modified, they will also be brought into conformance with this plan amendment as appropriate.

While the Final EIS for the Wyoming GRSG Proposed LUP Amendment constitutes compliance with NEPA for the broad-scale decisions made in this ARMPA, the BLM will continue to prepare Environmental Assessments (EAs) and Environmental Impacts Statements (EISs) where appropriate as part of implementation level planning and decision-making.

2.2 Goals, Objectives, and Management Decisions

This section of the ARMPA presents the goals, objectives, land use allocations, and management actions established for protecting and preserving GRSG and its habitat on public lands managed by the BLM in Wyoming. These management decisions are presented by program area. Not all types of decisions were identified for each program. A Monitoring Framework is also included (in Appendix D) to describe how the implemented program decisions will be monitored. The goals and objectives considered in the development of the management actions for this ARMPA are listed below.

Management Goals

1. Conserve, restore, and enhance sage-grouse habitat on a landscape scale consistent with local, state, and federal management plans and policies, as practical, while providing for multiple use of BLM-administered lands.

Management Objectives

1. In cooperation with the State of Wyoming and its agencies, local governments, private landowners, local sage-grouse working groups, partners and stakeholders, develop site-specific conservation strategies to maintain or enhance sage-grouse habitats and habitat connectivity.
2. Maintain and enhance quality/suitable habitat to support the expansion of sage-grouse populations on federally-administered lands within the planning area.
3. Manage sage-grouse seasonal habitats and maintain habitat connectivity to support population objectives set by the State of Wyoming in cooperation with the agencies.
4. Identify and prioritize opportunities for habitat enhancement and conservation within sage-grouse core habitat areas based on threats and the ability to manage sage-grouse habitat.
5. Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse.
6. Develop specific habitat objectives to protect, enhance or restore sage-grouse priority habitat based on Ecological Site Descriptions (ESDs) and BLM land health evaluations (including within wetland and riparian areas) taking into account site history (historic treatments or habitat manipulations) that have changed the soil chemistry, possibly altering the ESD. If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one alternative that conserves, restores, or enhances sage-grouse habitat in the NEPA document prepared for grazing management (Doherty et al. 2011, Williams et al. 2011).
7. Establish measurable objectives related to sage-grouse habitat from baseline monitoring data, ESDs, or land health assessments/evaluations.
8. Manage for vegetation composition and structure consistent with ecological site potential to achieve sage-grouse seasonal habitat objectives.
9. Incorporate available site information collected using the Sage-Grouse Habitat Assessment Framework or similar methods to evaluate existing resource conditions and to develop any necessary resource solutions in cooperation with State of Wyoming and its agencies, the local governments, private landowners, project proponents, partners, and stakeholders.
10. Incorporate management practices that will provide for maintenance and/or enhancement of sage-grouse habitats, including specific attention to maintenance of desired understories of sagebrush plant

communities. When developing objectives for residual cover and species diversity, identify the ecological site types within the planning area and refer to the appropriate ESDs.

11. In determining appropriate management actions that will be considered, refer to the document, *Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat* (Cagney et al. 2010) for guidance.
12. Identify PHMAs and GHMAs for each WAFWA MZ across the current geographic range of GRSG that are large enough to stabilize populations in the short term and enhance populations over the long term. GRSG habitat in this planning area overlaps two WAFWA MZs: (1) MZ I-Great Plains and (2) MZ II-Wyoming Basin.
13. Protect PHMAs and GHMAs from anthropogenic disturbance that will reduce distribution or abundance of GRSG.
14. Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMAs and GHMAs, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h). Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an application for permit to drill (APD) for the lease to avoid and minimize impacts to sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such federal leases.
15. In all SFAs and PHMAs, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in *Interpreting Indicators of Rangeland Health* (BLM Tech Ref 1734-6).
16. The habitat objectives (see Tables 2-2 and 2-3) will be part of the sage-grouse habitat assessment to be used during land health evaluations (see Monitoring Framework in Appendix D). These habitat objectives are not obtainable on every acre within the designated GRSG habitat management areas. Therefore, the determination on whether the objectives have been met will be based on the specific site's ecological ability to meet the desired condition identified in the table.
17. Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.

This section is organized by program area, beginning with the General Management Direction (GMD) which identifies general management actions for GRSG and its habitat. For ease of identification into the future, each program area has identified abbreviations (see below) and each decision in that program is numbered in coordination with the abbreviation.

- General Management Direction**—(GMD)**
- Special Status Species**—(SSS)**
    - Monitoring Effectiveness
    - Density and Disturbance
    - Onsite and Offsite Mitigation
    - Timing and Distance Restrictions
    - Predation
    - Noise
    - Adaptive Management
    - Sagebrush Focal Areas
- Vegetation**—(VEG)**
    - Vegetation Reclamation
    - Grasshopper/Mormon Cricket Control and Management

- Fire and Fuels Management**—(FIRE)**
    - Suppression
    - Fuels Management
    - Post-Fire Management
- Livestock Grazing**—(LG)**
    - Livestock Grazing Permit Monitoring
    - Permit Renewals
    - Range Improvement Projects
    - Livestock Trailing
    - Riparian Area Management
- Wild Horses and Burros**—(WHB)**
- Minerals Resources**—(MR)**
    - Fluid Minerals (Unleased Estate)
    - Fluid Minerals (Leased Estate)
    - Locatable Minerals
    - Salable Minerals
    - Non-Energy Leasable Minerals
    - Solid Leasable Minerals
    - Exceptions to Lease Stipulations, Conditions of Approval, and Terms and Conditions
- Renewable Energy**—(RE)**
- Lands and Realty**—(LR)**
    - Land Use Authorizations
    - Land Tenure
- Recreation and Visitor Services**—(REC)**
- Travel and Transportation**—(TTM)**
- Special Designations and Other Management Areas**—(SDMA)**

Table 2-1 is a summary of the allocation decisions presented for each GRSG habitat management area.

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

Resource	PHMA	GHMA
Land Tenure	Retain	Retain
Wind	Avoidance, with some Exclusion	Open
Major ROWs	Avoidance, with some Exclusion	Avoidance, with some Exclusion
Minor ROWs	Avoidance, with some Exclusion	Avoidance, with some Exclusion
Oil and Gas	Open with Major and Minor Stipulations	Open with Major and Minor Stipulations
Geothermal	Open with Major and Minor Stipulations	Open with Major and Minor Stipulations
Non-energy Leasables	Open, with some Closures	Open
Salable Minerals	Open, with some Closures	Open

Resource	PHMA	GHMA
Locatable Minerals	SFA = Recommend Withdrawal Other PHMA = Open with Modifications	Open
Travel Management	Limited	Limited
Livestock Grazing	Open	Open

General Management Direction (GMD)

Management Decisions (MD)

MD GMD 1: Continue to support the development of statewide sage-grouse seasonal habitat models for the State of Wyoming.

MD GMD 2: Field offices will work with project proponents, partners, and stakeholders to avoid or minimize impacts and/or implement direct mitigation (e.g., relocating disturbance, timing restrictions, etc.), and utilize best management practices (BMP). When necessary, offsite compensatory mitigation will be applied consistent with Wyoming's Core Area Strategy.

MD GMD 3: Utilize the Wyoming Sage-grouse Implementation Team (SGIT) and Local Working Group plans or other state plans, analyses, and other sources of information to guide development of conservation objectives for local management of sage-grouse habitats. The BLM will collaborate with appropriate federal agencies, and the State of Wyoming as contemplated under Governor Executive Order 2013-3, to: (1) develop appropriate conservation objectives; (2) define a framework for evaluating situations where GRSG conservation objectives are not being achieved on federal land, to determine if a causal relationship exists between improper grazing (by wildlife or wild horses or livestock) and GRSG conservation objectives; and (3) identify appropriate site-based action to achieve GRSG conservation objectives within the framework**.**

MD GMD 4: Include the collection of baseline data and outline post-project monitoring components in project planning, as appropriate and necessary.

MD GMD 5: The BLM will coordinate new recommendations, mitigation, habitat objectives, and management considerations applied for sage-grouse with the WGFD and other appropriate agencies, local government cooperators, and the Wyoming SGIT. These measures will be analyzed in site-specific NEPA documents, and planning level documents, as necessary.

MD GMD 6: Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present within GRSG habitat. Vegetation treatments must include monitoring to determine achievement of objectives and their long-term success.

MD GMD 7: Ensure site-specific, measurable, conservation and mitigation objectives are included in project planning within sage-grouse habitats.

MD GMD 8: Each BLM field office will develop landscape-scale restoration, conservation, and maintenance strategies, including special management of seasonal habitats and identified connectivity zones outside of PHMAs, working with voluntary partners and cooperating agencies. These strategies and habitat designations must be coordinated and reconciled with Wyoming's Greater Sage-Grouse Core Area Protection strategy (EO 2015-4), and where possible, with adjoining management entities that share habitats or populations.

MD GMD 9: Design all projects in a manner that minimizes potential for invasive species establishment. Monitor and treat invasive species associated with all permitted activities consistent with BLM Handbook H-1740-2.

MD GMD 10: Apply all appropriate required design features (Appendix C) as mandatory Stipulations/Conditions of Approval (COA)/Terms and Conditions within PHMAs for all program areas as applicable.

MD GMD 11: Integrated vegetation management will be used to control, suppress, and eradicate, where possible, noxious and invasive species per BLM Handbook H-1740-2. Manage weed treatments to maintain and improve GRSG habitat. RDFs and BMPs will be applied to the permit as Conditions of Approval as determined through the site-specific analysis.

MD GMD 12: Existing notices and approved plans of operations under 43 CFR 3809: For projects that overlap PHMAs, operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact PHMAs (core only). The Authorized Officer (AO) may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations (also called the project area, which is defined in 43 CFR 3809.5). These suggested conservation measures include measures that support the overall goals and objectives of the priority/core population area strategy and may not be reasonable or applicable to the BLM's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5. The request containing the suggested conservation measures must make clear that the operator's compliance is not mandatory.

Notices or plans of operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15-day completeness review of notices (or modifications thereto) and 30-day completeness review of plans of operations (or modifications thereto), the proposed project area(s) where exploration, development, mining, access and reclamation would take place will be reviewed for overlap of sage-grouse PHMAs in the corporate geographic information system (GIS) database. If there is overlap, the BLM AO may notify the operator of ways that they may minimize impacts to PHMAs (core only) and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.

MD GMD 13: As new occupied sage-grouse habitat is found or occurs either through additional inventories or expansion into previously unoccupied habitat, the BLM will incorporate, through appropriate processes and analyses, these areas into the GHMA category and manage them as such, until the earliest review occurs by the SGIT. At that time, they will be considered for PHMA status or continue to be managed as GHMAs and will be added to the statewide map.

MD GMD 14: Contribute to actions that help to ground-truth the statewide sage-grouse seasonal habitat models for the State of Wyoming.

MD GMD 15: Use the Sage-grouse Habitat Assessment Framework or best available assessment tool (approved by the AO) when assessing or evaluating sage-grouse habitats at multiple scales.

MD GMD 16: The official Wyoming sage-grouse lek database is maintained by the WGFD in accordance with Appendix 4B of the Umbrella Memorandum of Understanding (MOU) between the WGFD and BLM (WGFD and BLM 1990).

The MOU states that agencies will meet at least annually to coordinate and review the accuracy of data, and incorporate the most up-to-date information.

MD GMD 17: Many sage-grouse seasonal habitats within and outside of PHMAs (core only) are encumbered by valid existing rights, such as mineral leases or existing rights-of-way. Fluid mineral leases often will include less stringent lease stipulations than the timing, distance, and density requirements identified for consideration in this plan. The BLM will work with proponents holding valid existing leases that include less stringent lease stipulations than the timing, distance, and density restrictions described within this plan to ensure that measurable sage-grouse conservation objectives (such as, but not limited to, consolidation of infrastructure to reduce habitat fragmentation and loss, and effective conservation of seasonal habitats and habitat connectivity to support management objectives set by the WGFD) are included in all project proposals.

MD GMD 18: PHMAs will be designated as OHV Limited Areas. The OHV limitation will ultimately be to "Designated Routes" as determined through a subsequent implementation/activity level Travel Management Plan. In the interim, motorized use on existing routes may occur; however, no new routes may be created without specific authorization.

MD GMD 19: Complete activity-level travel plans within five years of the record of decision (ROD) for this planning effort. During activity level planning, where appropriate, designate routes in PHMAs with current administrative/agency purpose or need to administrative access only. Existing plans shall be assessed for consistency with sage-grouse conservation objectives.

MD GMD 20: Construct roads needed for production activities to minimum design standards within PHMAs, in compliance with the Density and Disturbance Calculation Tool (DDCT) process.

MD GMD 21: Field office staff will work with project proponents (including those within the BLM) and the WGFD to site their projects in locations that meet the purpose and need for their project, utilize the DDCT, and have been determined to contain the least sensitive habitats.

MD GMD 22: Evaluate opportunities to coordinate management plans and strategies on multiple allotments where coordination under a single management plan/strategy will result in enhancing GRSG populations or its habitat, as determined in coordination with the state wildlife agency and with project proponents, partners, and stakeholders.

MD GMD 23: Existing RMP decisions will be retained unless vacated or modified by decisions in this ARMPA. Where more restrictive land use allocations or decisions are made in existing RMPs, those more restrictive land use allocations or decisions will remain in effect and will not be amended by this ARMPA.

MD GMD 24: Fire and fuels management actions will be designed to contribute to the protection and enhancement of sagebrush habitat that support GRSG populations (including large contiguous blocks of sagebrush).

MD GMD 25: BLM planning units (Districts), in coordination with the USFWS and relevant state agencies, will complete and continue to update Greater Sage-Grouse Landscape Wildfire & Invasive Species Habitat Assessments to prioritize at-risk habitats, and identify fuels management, preparedness, suppression and restoration priorities necessary to maintain sagebrush habitat to support interconnecting GRSG populations. These assessments and subsequent assessment updates will also be a coordinated effort with an interdisciplinary team (IDT) to take into account other GRSG priorities identified in this plan. Appendix L describes a minimal framework example and suggested approach for this assessment.

Implementation actions will be tiered to the Local (District) Greater Sage-Grouse Landscape Wildfire & Invasive Species Assessment using the best available science related to the conservation of GRSG.

In coordination with USFWS and relevant state agencies, the BLM planning units (Districts) will identify annual treatment needs for wildfire and invasive species management as identified in local unit level

Landscape Wildfire and Invasive Species Assessments. Annual treatment needs will be coordinated across state/regional scales and across jurisdictional boundaries for long-term conservation of GRSG.

These landscape assessment implementation efforts will be reviewed annually with appropriate USFWS and state agency personnel.

MD GMD 26: Implement a coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System (NFDRS) thresholds (fuel conditions, drought conditions, and predicted weather patterns) for GRSG habitat.

MD GMD 27: Within acceptable risk levels, utilize a full range of fire management strategies and tactics, including the management of wildfires to achieve resource objectives across the range of sage-grouse habitat consistent with land use plan direction.

Special Status Species (SSS)

Seasonal Habitat Objectives for GRSG

Table 2-2
Seasonal Habitat Objectives for GRSG Wyoming Basin Ecoregion

Attribute	Indicators	Desired Condition[6]	Reference
BREEDING AND NESTING (Seasonal Use Period March 1-June 15)			Doherty 2008. Holloran and Anderson, 2005.
Lek Security	Proximity of trees	Trees absent or uncommon on shrub/grassland ecological sites within 1.8 miles (approx. 3 km) of occupied leks.	Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese 2013. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover within 330 ft. (approx. 100 m) of an occupied lek.	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
Cover	% of seasonal habitat meeting desired conditions	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover[2]	5 to 25%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Connelly, J. W., K. P. Reese, and M. A. Schroeder 2003. Hagen, C. A., J. W. Connelly, and M. A. Schroeder 2007.
	Sagebrush height		Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Arid sites[3]	4-31 inches (10-80cm)	
	Mesic sites[4]	12-31 inches (30-80cm)	

Table 2-2
Seasonal Habitat Objectives for GRSG Wyoming Basin Ecoregion

Attribute	Indicators	Desired Condition[6]	Reference
	Predominant sagebrush shape	Predominantly spreading shape[5]	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Perennial grass cover (such as native bunchgrass)[2] Arid sites[3] Mesic sites[4]	 ≥10% ≥15% Cool-season bunchgrasses preferred	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press). Cagney J., E. Bainter, B. Budd, T. Christiansen, V. Herren, M. Holloran, B. Rashford, M. Smith and J. Williams 2010.
	Perennial grass and forb height (including residual grasses)	Adequate nesting cover of ≥7" or as determined by ESD site potential and local variability	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Connelly, J. W., K. P. Reese, and M. A. Schroeder 2003. Doherty, K.E., D.E. Naugle, J.D. Tack, B.L Walker, J.M. Graham and J.L. Beck 2014. Hagen, C. A., J. W. Connelly, and M. A. Schroeder 2007. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Perennial forb cover[2] Arid sites[3] Mesic sites[4]	 >5% >10%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
BROOD-REARING/SUMMER[1] (Seasonal Use Period June 16-October 31)			
Cover	% of Seasonal habitat meeting desired condition	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to ecological site potential, etc.)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover[2]	5-25%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush height	4 to 32 inches (20.3-80cm)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Perennial grass cover and forbs[2]	>5% arid sites >10% mesic sites	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Riparian areas/mesic meadows[2]	Proper Functioning Condition	Preferred forbs are listed in Stiver et al. (in press).

Table 2-2
Seasonal Habitat Objectives for GRSG Wyoming Basin Ecoregion

Attribute	Indicators	Desired Condition[6]	Reference
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
WINTER[1] (Seasonal Use Period November 1-February 28)			
Cover and Food	% of seasonal habitat meeting desired conditions	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover above snow[2]	>5%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Sagebrush height above snow	>10 inches (>25cm)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.

[1] Where credible data support different seasonal dates than those identified, dates may be shifted but the amount of days cannot be shortened or lengthened by the local unit.
[2]Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to other species present.
[3]Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).
[4]Mesic corresponds to the ≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).
[5]Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.
[6]All Desired Conditions will be dependent upon site capability and local variation (e.g., weather patterns, localized drought, ESD state, etc.).

Table 2-3
Seasonal Habitat Objectives for GRSG NE Wyoming

Attribute	Indicators	Desired Condition[6]	Reference
BREEDING HABITAT (Lek and Nesting/Early Brood-Rearing)			Doherty 2008. Holloran and Anderson 2005.
Lek Security	Proximity of trees	Trees absent or uncommon on shrub/grassland ecological sites within 1.86 miles (3 km) of occupied leks.	Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese 2013. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover within 330 ft. (approx. 100 m) of an occupied lek.	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
NESTING/EARLY BROOD-REARING			
Cover and Food	Seasonal habitat extent	>80% of the nesting habitat meets the recommended vegetation characteristics, where appropriate (relative to ecological site potential, etc.).	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover[2]	5 to 25%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Connelly, J. W., K. P. Reese, and M. A. Schroeder 2003. Hagen, C. A., J. W. Connelly, and M. A. Schroeder 2007.
	Sagebrush height Arid sites[3] Mesic sites[4]	 4-31 inches (10-80cm) 12-31 inches (30-80cm)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Predominant sagebrush shape	Predominantly spreading shape[5]	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Perennial grass cover (such as native bunchgrass)[2] Arid sites[3] Mesic sites[4]	 ≥10% ≥15% Cool-season bunchgrasses preferred	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press). Cagney J., E. Bainter, B. Budd, T. Christiansen, V. Herren, M. Holloran, B. Rashford, M. Smith and J. Williams 2010.
	Perennial grass height (including residual grasses)	Adequate nesting cover of >7" or as determined by ESD	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.

Table 2-3
Seasonal Habitat Objectives for GRSG NE Wyoming

Attribute	Indicators	Desired Condition[6]	Reference
		site potential and local variability	Connelly, J. W., K. P. Reese, and M. A. Schroeder 2003. Doherty, K.E., D.E. Naugle, J.D. Tack, B.L Walker, J.M. Graham and J.L. Beck 2014. Hagen, C. A., J. W. Connelly, and M. A. Schroeder 2007. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
	Perennial forb cover[2]		Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Arid sites[3]	>5%	
	Mesic sites[4]	>10%	
LATE BROOD-REARING/SUMMER[1] (July-October)[1] (Apply to all habitat outside of nesting/breeding and winter)			
Cover and Food	Seasonal habitat extent	>40% of the summer/brood habitat meets recommended brood habitat characteristics where appropriate (relative to ecological site potential, etc.)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover[2]	5-25%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush height	4 to 32 inches (20.3-80cm)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Perennial grass cover	>5% arid sites	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Riparian meadow habitat condition	Proper Functioning Condition	Preferred forbs are listed in Stiver et al. (in press).
	Upland and riparian perennial forb availability	Preferred forbs are common with several preferred species present	Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).
WINTER[1] (November –March)[1] (Apply to areas known or likely winter-use)			
Cover and Food	Seasonal habitat extent	>80% of the wintering habitat meets winter habitat characteristics where appropriate (relative to ecological site, etc.).	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.
	Sagebrush cover above snow[2]	>5%	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000. Stiver, S. J., E. T. Rinkes, D. E. Naugle, P. D. Makela, D. A. Nance, and J. W. Karl (in press).

Table 2-3
Seasonal Habitat Objectives for GRSG NE Wyoming

Attribute	Indicators	Desired Condition[6]	Reference
	Sagebrush height above snow	>10 inches (>25cm)	Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun 2000.

[1] Where credible data support different seasonal dates than those identified, dates may be shifted but the amount of days cannot be shortened or lengthened by the local unit.
[2]Absolute cover is the actual recorded cover and can exceed 100% when recorded across all species and all layers. It is not relative cover, which is the proportions of each species, and equals 100%. Note that cover is reported for only those species (e.g., sagebrush, preferred forbs) that are sampled to determine suitability of habitat for sage-grouse. Overall cover at the site will be greater than that sampled for sage-grouse habitat, due to other species present.
[3]Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyomingensis* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).
[4]Mesic corresponds to the ≥12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. *In Press*).
[5]Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. *In Press*. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. *In Press*). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.
[6]All Desired Conditions will be dependent upon site capability and local variation (e.g., weather patterns, localized drought, ESD state, etc.).

Management Decisions (MD)

Monitoring Effectiveness

MD SSS 1: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

The BLM, in coordination with the State of Wyoming and its agencies, other local partners and stakeholders, will establish monitoring framework (Appendix D) for sage-grouse populations and habitat that will be incorporated into individual project approvals, including small and in-house projects, as appropriate and necessary.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Bates Hole and Fish Creek/Willow Creek: The areas will have priority for vegetative treatments to improve sage-grouse habitats and for vegetation monitoring to ensure residual herbaceous vegetation is maintained for nesting cover on public lands.

Density and Disturbance

MD SSS 2: In PHMAs (core only), the density of disturbance of an energy or mining facility (Appendix D) will be limited to an average of one site per square mile (640 acres) within the DDCT, subject to valid existing rights. The one location and cumulative value of existing disturbances will not exceed 5 percent of suitable habitat of the DDCT area. Inside PHMAs, all suitable habitat disturbed (any program area) will not exceed 5% within the DDCT area using the DDCT process.

MD SSS 3: Inside PHMAs (connectivity only), all suitable habitat disturbed (any program area) will not exceed 5% of suitable habitat within the DDCT area using the DDCT process.

Onsite and Offsite Mitigation

MD SSS 4: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

In undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation in PHMAs, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. In Wyoming, the USFWS has found that "the core area strategy, if implemented by all landowners via regulatory mechanism, would provide adequate protection for sage-grouse and their habitats in the state." The BLM will implement actions to achieve the goal of net conservation gain consistent with the Wyoming Strategy (EO2015-4) that includes "compensatory mitigation as a strategy that should be used when avoidance and minimization are inadequate to protect Core Population Area Greater sage-grouse."

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Pinedale RMP:

Offsite mitigation proposed by oil and gas or other operators shall be considered and analyzed in future environmental documents as possible mitigation for proposed activities within the planning area. Proposed offsite mitigation will be described and analyzed for effectiveness in detail on a project-specific basis. Planning for offsite mitigation will be performed in coordination with local government agencies. The need for offsite mitigation will be determined in conformance with current BLM policy, as updated.

The order of use of mitigation methods from most to least preferred is as follows:

1. Onsite mitigation directly resolving impacts created by the action
2. Offsite mitigation to the resources affected by the action that cannot be resolved onsite
3. Offsite mitigation to similar or related resources affected by the action that cannot be resolved onsite.

The following stipulations apply to offsite mitigation measures:

1. Offsite mitigation will be used as a last choice when developing mitigation measures.
2. Offsite mitigation proposals will describe the replacement or substitution activities or methods that are used to address potential impacts on specific resources or environments or both.
3. Offsite mitigation must be as close to "in-kind" in replacement or substitution of resources, habitat function, or environments as practicable (e.g., elk habitat for elk habitat, historical properties for historical properties).
4. Offsite mitigation practices must last as long as the impacts are expected to occur.
5. Offsite mitigation practices are to be developed, conducted or performed, and funded by the project proponent.
6. Offsite mitigation activities must be conducted subject to BLM review and approval that the mitigation will actually address the impacts occurring on the public lands.

The priority order for mitigating resource impacts onsite or offsite is as follows:

1. Onsite Mitigation – Onsite (avoid, minimize, rectify, or reduce in time).
2. Offsite Mitigation – Local (unless greater resource benefits can be achieved through regional or interstate mitigation).
3. Offsite Mitigation – Regional (unless greater resource benefits can be achieved through interstate mitigation).
4. Offsite Mitigation – Interstate: The preferred area for conducting offsite mitigation is as near (local offsite mitigation) to the project or impacted area as possible or as scientific information and impact analysis suggests.
5. Offsite Mitigation – Interstate: The preferred area for conducting offsite mitigation is as near (local offsite mitigation) to the project or impacted area as possible or as scientific information and impact analysis suggests.

Timing and Distance Restrictions

MD SSS 5: Sage-grouse leks inside PHMAs:

Surface occupancy and surface disturbing activities will be prohibited on or within a 0.6 mile radius of the perimeter of occupied sage-grouse leks (Map 2-8).

The AO may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, will not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG.

MD SSS 6: Sage-grouse leks outside PHMAs:

Surface occupancy and surface disturbing activities will be prohibited on or within a 0.25 mile radius of the perimeter of occupied sage-grouse leks (Map 2-8).

The AO may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, will not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of GRSG.

MD SSS 7: Sage-grouse breeding, nesting, and early brood-rearing habitat inside PHMAs (core only):

Surface disturbing and/or disruptive activities will be prohibited from March 15–June 30 to protect sage-grouse breeding, nesting, and early brood rearing habitat. This timing limitation will be applied throughout the PHMAs (core only). Activities in unsuitable habitats will be evaluated under the exception and modification criteria and shall be allowed on a case by case basis.

Where credible data support different timeframes for this seasonal restriction, dates may be expanded by up to 14 days prior to or subsequent to the above dates.

MD SSS 8: Sage-grouse breeding, nesting, and early brood-rearing habitat inside PHMAs (connectivity only):

Surface disturbing and/or disruptive activities will be prohibited within PHMAs (connectivity only) from March 15–June 30 to protect breeding, nesting, and early brood-rearing habitats within 4 miles of the lek or lek perimeter of any occupied sage-grouse lek within identified PHMAs (connectivity only). This timing limitation will be applied throughout the PHMAs (connectivity only). Activities in unsuitable habitats will be evaluated under the exception and modification criteria and may be allowed on a case-by-case basis.

Where credible data support different timeframes for this seasonal restriction, dates can be shifted by 14 days prior or subsequent to the above dates.

MD SSS 9: Sage-grouse breeding, nesting, and early brood-rearing habitat outside PHMAs:

Surface disturbing and/or disruptive activities will be prohibited from March 15–June 30 to protect sage-grouse nesting and early brood rearing habitats within 2 miles of the lek or lek perimeter of any occupied lek located outside PHMAs.

Where credible data support different timeframes for this restriction, dates can be shifted by 14 days prior or subsequent to the above dates.

MD SSS 10: Sage-grouse winter concentration areas:

Surface disturbing and/or disruptive activities in sage-grouse winter concentration areas would be prohibited from December 1–March 14.

Activities in unsuitable habitats within PHMAs would be evaluated under the exception and modification criteria and could be allowed on a case-by-case basis.

Protection of additional mapped winter concentration areas in GHMAs would be implemented where winter concentration areas are identified as supporting populations of sage-grouse that attend leks within PHMAs (core only). Appropriate seasonal timing restrictions and habitat protection measures would be considered and evaluated in consultation with the WGFD in all identified winter concentration areas.

Predation

MD SSS 11: The BLM will support other agencies in their efforts to minimize impacts from predators.

The BLM will implement strategies and techniques in land management decisions that address predators shown to pose a threat to sage-grouse (Appendix N).

The BLM will support and encourage other agencies in their efforts to minimize impacts from predators on sage-grouse where needs have been documented.

Noise

MD SSS 12: New project noise levels, either individual or cumulative, should not exceed 10 dBA (as measured by L50) above baseline noise at the perimeter of the lek from 6:00 pm to 8:00 am during the breading season (March 1–May 15). Specific noise protocols for measurement and implementation will be developed as additional research and information emerges.

Adaptive Management

MD SSS 13: The GRSG adaptive management plan (Appendix D) provides a means of addressing and responding to unintended negative impacts to GRSG and its habitat will be addressed before consequences become severe or irreversible. The Wyoming GRSG ARMPA will include the requirement for projects requiring an EIS to develop adaptive management strategies in support of the population management objectives for GRSG set by the State of Wyoming. Wyoming ADPPs will include an adaptive management plan, as reviewed by the BLM WO, SOL, and USFWS, which includes: Upon determination that a hard trigger is tripped, the BLM will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. In addition, within 14 days of a determination, the Adaptive Management Working Group will convene to develop an interim response strategy and initiate an assessment to determine the causal factors.

Adaptive management triggers are essential for identifying when potential management changes are needed in order to continue meeting GRSG conservation objectives. With respect to 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.

In making amendments to this plan, the BLM will coordinate with the USFWS as the BLM continues to meet its objective of conserving, enhancing and restoring GRSG habitat by reducing, minimizing or eliminating threats to that habitat. The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD and then at a minimum, analyzed annually thereafter.

Soft Triggers:

Soft triggers are indicators that management or specific activities may not be achieving the intended results of conservation action or that unanticipated changes to populations or habitats have occurred that have the potential to place habitats or populations at risk. The soft trigger is any deviation from normal trends in habitat or population in any given year. Metrics include, but are not limited to, annual lek counts, wing counts, aerial surveys, habitat monitoring, and DDCT evaluations. BLM field offices, with the assistance of their respective land and resource management plan implementation groups, local WGFD offices, and local sage-grouse working groups will evaluate the metrics with the Adaptive Management Working Group (AMWG) on an annual basis. For population metrics, normal population trends are calculated as the five-year running mean of annual population counts. The purpose of these strategies is to address localized GRSG population and habitat changes by providing the framework in which management will change if monitoring identifies negative population and habitat anomalies in order to avoid crossing a hard trigger threshold.

Hard Triggers:

Hard triggers are indicators that management is not achieving desired conservation results. Hard triggers will be considered a catastrophic indicator that the species is not responding to conservation actions, or that a larger-scale impact or set of impacts is having a negative effect. 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 exceeds 60 percent of normal variability for the area under management in a single year, or when any of the three metrics exceeds 40% of normal variability for a three year time period within a five-year range of analysis. A minimum of three consecutive years in a five-year period is used to determine trends (i.e., Y1-2-3, Y2-3-4, Y3-4-5).

Sagebrush Focal Areas

MD SSS 14: Designate SFAs as shown on Map 1-2 (1,915,990 acres). SFAs will be managed as PHMAs, with the following additional management:

1) Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights, the lands shown in Map 2-3 (252,160 acres), and 2) Prioritized for vegetation management and conservation actions in these areas, including, but not limited to land health assessments, wild horse and burro management actions, review of livestock grazing permits/leases, and habitat restoration (see specific management sections).

Vegetation (VEG)

Management Decisions (MD)

MD VEG 1: Manage vegetation composition, diversity and structure, as determined by Ecological Site Description (ESD), or other methods that reference site potential, and WGFD protocols, to achieve GRSG habitat management objectives, in cooperation with stakeholders.

MD VEG 2: Within PHMAs in northeast Wyoming (as mapped in WY EO 2011-5), vegetation treatments in nesting and wintering habitat that will reduce sagebrush canopy to less than 15% will not be conducted.

MD VEG 3: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

For vegetation treatments in sagebrush within PHMAs, refer to Appendix H, WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated) and BLM Washington Office Instruction Memorandum 2013-128 (Sage-grouse Conservation Related to Wildland Fire and Fuels Management).

These recommended protocols will be used in determining whether proposed treatment constitutes a "disturbance" that will contribute toward the 5% threshold within PHMA maintenance. Additionally, these protocols will be used to determine whether the proposed treatment configuration is expected to have neutral or beneficial impacts for PHMA (core only) populations or if they represent additional habitat loss or fragmentation.

Treatments to enhance sagebrush/grasslands habitat for sage-grouse will be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.

The BLM will work collaboratively with partners at the state and local level to maintain and enhance sage-grouse habitats.

Seasonal restriction would be applied, as needed, for implementing fuels management treatments according to the type of seasonal habitat present.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Green River RMP:

Prescribed burns generally will be conducted in areas having greater than 35% sagebrush composition, 20% desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits.

Casper RMP:

Decision 4053: The areas (Bates Hole and Fish Creek/Willow Creek) will have priority for vegetative treatments to improve sage-grouse habitats and for vegetation monitoring to ensure residual herbaceous vegetation is maintained for nesting cover on public lands.

MD VEG 4: Within PHMAs, grazing will be deferred on treated areas for two full growing seasons unless vegetation objectives or vegetation recovery indicates a shorter or longer rest period is necessary based on vegetation monitoring results.

Vegetation Reclamation

MD VEG 5: Reclamation of surface disturbances in PHMAs will be consistent with the Wyoming Reclamation Policy (BLM 2009a), vegetation objectives (Table 2-2 and 2-3) and Appendix M.

A monitoring plan will be developed for each restoration or reclamation project and will report progress and changes in resource condition.

MD VEG 6: Areas for vegetation restoration and/or restoration criteria that include state sage-grouse conservation plans and appropriate local information will be identified. The use of native plants and seeds for restoration will be required unless the probability for success is low (non-native plants and seeds may be used as long as they meet sage-grouse habitat objectives), and restoration management will be designed to obtain long-term persistence based on ESD.

Reestablishment of sagebrush cover and desirable understory plants will be the highest priority for restoration efforts.

Landscape patterns that most benefit sage-grouse will be restored and created, considering potential changes in climate.

MD VEG 7: Within PHMAs, implementation of restoration projects will be prioritized based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse.

Restoration will be prioritized in seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance.

MD VEG 8: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Where probability of success or native seed availability is low or where there is a specific identified purpose that cannot be met with natives, non-native seeds can be used provided they meet sage-grouse habitat conservation and vegetation (see Tables 2-2 and 2-3) objectives.

The use of native seeds for fuels management treatment will be prioritized based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, non-native seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and non-native species, as appropriate, to provide for fuel breaks.

Native seed allocation will be prioritized for use in sage-grouse habitat.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Kemmerer RMP:

Require the use of certified weed-free seed and mulch for rehabilitation projects.

Pinedale RMP:

Disturbed areas will be reclaimed to native site plant composition. If reclamation of original plant composition is impossible or not desirable, reclamation will achieve a native plant community that meets the Wyoming Standards for Rangeland Health.

MD VEG 9: Post emergency stabilization and rehabilitation (ES&R) and burn area emergency rehabilitation BAER management will be designed to ensure long-term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse, and travel management, etc., to achieve and maintain the desired condition of ES&R and BAER projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006).

MD VEG 10: Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to sage-grouse habitat to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings provide value in conserving or enhancing sage-grouse habitats, then no restoration would be necessary. Assess the compatibility of these seedings for sage-grouse habitat during the land health assessments.

MD VEG 11: Priority will be given for implementing specific sage-grouse habitat restoration projects in areas invaded by annual grasses first to sites that are adjacent to or surrounded by PHMAs. Areas invaded by annual grasses will be second priority for restoration when the sites are not adjacent to PHMAs, but are within 2 miles of PHMAs. The third priority for areas invaded by annual grasses habitat restoration projects will be sites beyond 2 miles of PHMAs. The intent will be to focus restoration outward from existing, intact habitat.

MD VEG 12: In fire prone areas where sagebrush seed is required for sage-grouse habitat restoration, the BLM will consider establishing seed harvest areas that are managed for seed production and are a priority for protection from outside disturbances.

MD VEG 13: Vegetation treatment proposals must include evaluation of soils, precipitation, invasive/exotic plants, as well as the current condition of PHMAs.

Avoid aerial pesticide/herbicide spraying in favor of ground applications to minimize drift into non-target areas in GRSG habitat unless benefits of treatments are likely to outweigh impacts.

MD VEG 14: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.

Grasshopper/Mormon Cricket Control and Management

MD VEG 15: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

The BLM can implement treatments within PHMAs where outbreaks of grasshopper or Mormon cricket populations are expected to rise above economic levels. Treatments must be conducted only following reduced agent-area treatments (RAATS) protocols. The BLM will work collaboratively with partners at the federal, state, and local levels, including the Wyoming Weed and Pest Districts within the counties where the treatment is to occur, to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation.

The BLM will be directed to utilize the Wyoming Grasshopper and Mormon Cricket Control website as a resource for updated information when conducting analysis of grasshopper and Mormon cricket control in sage-grouse habitats.

Avoid aerial pesticide/herbicide spraying in favor of ground applications to minimize drift into non-target areas in GRSG habitat unless benefits of treatments are likely to outweigh impacts.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Work with Animal and Plant Health Inspection Service (APHIS) to control outbreaks of grasshoppers and Mormon crickets on public lands in the planning area in accordance with the MOU between U.S. Department of the Interior and APHIS.

Fire and Fuels Management (FIRE)

Management Decisions (MD)

Suppression

MD FIRE 1: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

For Wildland Fire Management, the protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection. The goal is to restore, enhance, and maintain areas suitable for GRSG. GRSG habitat (GHMA) will be prioritized commensurate with local fire plans, property values and other important habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for GRSG.

PHMAs (and Priority Areas for Conservation (PAC), if so determined by individual RMP efforts) will be the highest priority for conservation and protection during fire operations and fuels management decisionmaking. The PHMAs will be viewed as more valuable than GHMAs when priorities are established. When suppression resources are widely available, maximum efforts will be placed on limiting fire growth in GHMA polygons as well. These priority areas will be further refined following completion of the Greater Sage-Grouse Landscape Wildfire and Invasive Species Habitat Assessments described in Appendix L.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Appropriate management response will be used on all wildfires in the planning area.

Full protection strategies and tactics will be used in the following areas:

1. Wildland Urban Interface (WUI)
2. Wildland industrial interface
3. Developed recreation sites
4. Developed electronics sites of all types.

In all other areas AMR strategies and tactics will be determined by (but not limited to) the following:

1. Firefighter and public safety
2. Resource values at risk
3. Proximity to private land
4. Firefighting resource availability.

Tactical constraints follow:

1. The use of retardant within 300 feet of surface water (standing or running) is prohibited.
2. No trees are to be cut during suppression activities within 200 yards of an identified bald eagle roost.

No heavy equipment will be used within the following areas, except when human safety is at risk:

1. Areas of cultural resource sensitivity
2. Riparian/wetland habitats
3. Big game crucial winter range habitats
4. GRSG leks
5. Areas of highly erosive soils.

In areas not identified as full protection, heavy equipment usage will be limited to existing roads and trails or immediately adjacent to them.

Kemmerer RMP:

In areas of high-density urban and (or) industrial interface with intermingled BLM-administered lands, suppression objectives will follow the AMR in an approved fire management plan for the planning area to provide first for human health and safety, while minimizing loss of property and threats to other surface owners. Generally, wildland fires are suppressed in these areas. In areas of low-density urban and (or) industrial interface where BLM-administered lands occur in large contiguous blocks, fire suppression objectives will follow the AMR in an approved fire management plan for the planning area to provide first for human health and safety, while allowing for achievement of resource objectives.

Newcastle RMP:

Full suppression will be used on fires endangering human life or that spread to within 0.25 mile of state or private lands, structures and facilities, oil and gas fields, important riparian habitat, or other sensitive resources.

All wildfires will be evaluated to determine the need for rehabilitation or restoration measures. Restoration of burned areas will be by natural succession unless a special need is identified to prevent further resource damage.

Pinedale RMP:

Wildland fire mitigation and fuels activities will be managed to provide for firefighter and public safety as a first priority. Public lands within intermixed landownership areas will be managed in association with the adjoining and nearby private and state lands.

Areas of mixed landownership, communities at risk as identified in the Federal Register, Volume 66, Number 160, 2001 (Antelope Run, Beaver Creek area, Boulder, Cottonwood Creek, Daniel, Forty Rod, Hoback Ranches, New Fork, Pinedale, Pocket Creek, and Upper Green); urban and industrial interface areas; and areas containing high-priority resource values have high priority for response to wildland fires and/or for fuels reduction and mitigation. Wildland fire suppression activities will be based on the AMR.

Rawlins RMP:

A high priority for fire management activities will be given to areas identified as communities at risk, industrial interface areas, and areas containing resource values considered high priority within the RMP planning area.

Green River RMP:

Wildfire suppression will emphasize AMR. Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential threaten structural property.

Fire suppression actions will be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans will be developed for designated fire management areas defining specific parameters for all fire occurrences.

JMH CAP:

Appropriate management response to protect the basin big sagebrush/lemon scurfpea plant communities will be applied.

Wildland and prescribed fires will be managed in all vegetation types to maintain or improve biological diversity and the overall health of the public lands. In particular, plant species and age class diversity will be a priority; thus, AMR for all wildland fires will be identified and implemented depending on the resources and management objectives for the area.

Suppression techniques and hazardous fuels reduction activities will be identified to reduce wildland fire severity and occurrence on portions of the landscape where fire causes undesirable changes in plant community composition and structure. A site-specific analysis will be prepared for sensitive resource areas, such as special status plant species sites, heritage sites, historic trails, and ACECs, to determine the type of fire suppression activity that will be acceptable. Fire equipment and fire suppression techniques, such as vegetation clearing, will be limited to existing roads and trails in special status plant species habitat. As appropriate, the Fire Management Plan will be updated to reflect the appropriate suppression activity in sensitive resource areas.

Fuels Management

MD FIRE 2: In PHMAs, fuels treatments will be designed and implemented with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems (refer to WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse [WGFD 2011, as updated]) and Appendix H.

These recommended protocols will be used in determining whether proposed treatment constitutes a "disturbance" that will contribute toward the 5% threshold for habitat maintenance.

Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat. Green strips (using native fire resistant/resilient species) and/or fuel breaks will be used, where appropriate, to protect seeding efforts from subsequent fire events.

In coordination with the USFWS and relevant state agencies, BLM planning units (Districts) with large blocks of GRSG habitat will develop, using the assessment process described in Appendix L, a fuels management strategy which considers an up-to-date fuels profile, land use plan direction, current and potential habitat

fragmentation, sagebrush and sage-grouse ecological factors, and active vegetation management steps to provide critical breaks in fuel continuity, where appropriate. When developing this strategy, planning units will consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.

Utilizing an interdisciplinary approach, a full range of fuel reduction techniques will be available. Fuel reduction techniques such as grazing, prescribed fire, chemical, biological, and mechanical treatments will be acceptable.

Upon project completion, fuels projects will be monitored and managed to ensure long-term success, including persistence of seeded species and/or other treatment components. Invasive vegetation post-treatment will be controlled.

Wildfire prevention plans will be developed that explain the resource value of sage-grouse habitat and include fire prevention messages and actions to reduce human-caused ignitions.

MD FIRE 3: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

For fuels management, the BLM will consider multiple tools for fuels reduction and will analyze in NEPA compliance documentation before electing to implement prescribed fire in PHMAs.

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

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

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

Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality. Refer to Appendix H, WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse (WGFD 2011, as updated) and BLM Washington Office Instruction Memorandum 2013-128. If prescribed fire activities are not in compliance with these protocols, the treatment will be considered a PHMA disturbance.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Use prescribed burning to achieve measurable 5th-order watershed objectives from (1) other resources, including, but not limited to, forestry, wildlife, range, vegetation, and watershed; (2) the reduction of hazardous fuels; and (3) the introduction of fire into fire-adapted ecosystems.

Green River RMP/JMH CAP:

Prescribed fire will generally be the preferred method of vegetation manipulation to convert decadent stands of brushland to grasslands and to stimulate sprouting of old, decadent aspen stands and/or shrub species. Prescribed burns are preferred in areas having greater than 35% sagebrush composition, 20% desirable grass composition, and greater than 10 inches of precipitation.

Rawlins RMP:

Fuel treatments, including prescribed fire, mechanical, chemical, and biological treatments will be used for fuels reduction and to meet other multiple-use resource objectives, including returning fire to its natural role in the ecosystem. Wildland urban interfaces (WUI) and communities at risk will receive priority for fuels reduction.

MD FIRE 4: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Remove conifers encroaching into sagebrush habitats in a manner that considers tribal cultural values. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the FIAT report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Treat woodland encroachment in grassland, sagebrush, aspen, and other vegetative communities where it is determined to be detrimental to other resource values or uses.

Manage 630,180 acres of sagebrush communities toward DPC.

MD FIRE 5: The following RMP decisions remain in effect for both PHMAs and GHMAs:

Pinedale RMP:

In the WUI or industrial interface, fuels reduction methods best suited to the area will be used to reduce the risk of catastrophic fire to these areas.

Casper RMP:

Use prescribed burning to achieve measurable 5th-order watershed objectives from (1) other resources, including, but not limited to, forestry, wildlife, range, vegetation, and watershed; (2) the reduction of hazardous fuels; and (3) the introduction of fire into fire-adapted ecosystems.

Utilize an integrated management technique approach (defined as prescribed fire, mechanical, chemical, or biological, followed by desired reseeding) to reduce fuels to protect high priority areas or resource values defined as, but not limited to the following:

- Urban and industrial interface areas
- Developed recreation areas
- Commercial timber areas
- Wildlife habitats
- Range-improvement facilities
- Communication sites
- Municipal watersheds. Decision 3008 Fuels Management.

Rawlins RMP:

A high priority for fire management activities will be given to areas identified as communities at risk, industrial interface areas, and areas containing resource values considered high priority within the RMP planning area.

JMH CAP:

Appropriate management response to protect the basin big sagebrush/lemon scurfpea plant communities will be applied.

Wildland and prescribed fires will be managed in all vegetation types to maintain or improve biological diversity and the overall health of the public lands. In particular, plant species and age class diversity will be a priority; thus, appropriate management response (AMR) for all wildland fires will be identified and implemented depending on the resources and management objectives for the area.

Suppression techniques and hazardous fuels reduction activities will be identified to reduce wildland fire severity and occurrence on portions of the landscape where fire can cause undesirable changes in plant community composition and structure. A site-specific analysis will be prepared for sensitive resource areas, such as special status plant species sites, heritage sites, historic trails, and ACECs, to determine the type of fire suppression activity that will be acceptable. Fire equipment and fire suppression techniques, such as vegetation clearing, will be limited to existing roads and trails in special status plant species habitat. As appropriate, the Fire Management Plan will be updated to reflect the appropriate suppression activity in sensitive resource areas.

Post-Fire Management

MD FIRE 6: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Burned areas within PHMAs will be restored to suitable habitat with consideration given to ESDs, reference sites, site potential, habitat objectives and local variability.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Kemmerer RMP:

Implement BLM Emergency Stabilization and Rehabilitation standards located in the Department of the Interior (DOI) Interagency Burned Area Emergency Response Guidebook and BLM Burned Area Emergency Stabilization and Rehabilitation Handbook on wildland fires to protect and sustain healthy ecosystems and protect life and property.

Newcastle RMP:

All wildfires will be evaluated to determine the need for rehabilitation or restoration measures. Restoration of burned areas will be by natural succession unless a special need is identified to prevent further resource damage.

Rawlins RMP:

Rehabilitation and restoration efforts specific to a fire event will be undertaken to protect and sustain ecosystems, public health and safety, and to help communities protect infrastructure.

MD FIRE 7: Within PHMAs, post fuels management projects will be designed to ensure long-term persistence of seeded or pre-treatment native plants (while controlling for erosion and treating infestation of invasive plant species), to return to suitable sage-grouse habitat.

Livestock Grazing (LG)

Management Decisions (MD)

MD LG 1: The BLM policy in WO-IM-2009-007 and BLM Handbook H-4180-1 will be used to evaluate land health standards achievement in PHMAs (core only) and, where not achieved, to determine if existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards and conform with the guidelines, which through this process will identify appropriate actions to address non-achievement and non-conformance.

When determining appropriate actions to address non-achievement of land health standards and non-conformance with the guidelines due to existing grazing management practices or levels of grazing use, management actions including but not limited to the following will be considered singly or in combination:

1. Season or timing of use
2. Numbers of livestock (includes temporary non-use or livestock removal)
3. Distribution of livestock use
4. Intensity of use
5. Kind of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats)
6. Class of livestock (e.g., yearlings versus cow calf pairs)
7. Range improvements.

Refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance when considering appropriate management actions to achieve conformance.

MD LG 2: Within PHMAs the BLM will work cooperatively with permittees, lessees, and other landowners to develop voluntary grazing management strategies that integrate both public and private lands into single management units to improve sage-grouse habitat.

Livestock Grazing Permit Monitoring

MD LG 3: The following RMP decisions remain in effect:

Casper RMP:

Grazing leases will be adjusted where an evaluation of monitoring, field observations, or other data indicate changes, and either increases or decreases, in forage allocation are needed or when necessary or required by other applicable law or regulation.

Kemmerer RMP:

Vegetative communities will be managed in accordance with Wyoming Standards for Healthy Rangelands.

Appropriate livestock grazing management actions will be developed and integrated to address rangeland health standards, improve forage for livestock, and enhance rangeland health.

Newcastle RMP:

Any adjustments in livestock grazing use will be made as a result of monitoring and consultation with grazing permittees. Monitoring studies will be conducted using the current BLM-approved methodology**.**

Pinedale RMP:

Monitoring of the range and the vegetation resource will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions. Monitoring will be tied to land health standards and indicators that help determine change in status and progress toward meeting objectives. Data will be used to direct and support grazing management decisions consistent with national policy.

Rawlins RMP:

Livestock grazing will be managed to meet the Wyoming Standards for Healthy Rangelands.

Green River RMP/JMH CAP:

The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resources conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met.

Permit Renewals

MD LG 4: Within PHMAs, all BLM use authorizations will contain terms and conditions regarding the actions needed to meet or progress toward meeting the habitat objectives. If monitoring data show the habitat objectives have not been met nor progress being made towards meeting them, there will be an evaluation and a determination made as to the cause. If it is determined that the authorized use is a significant factor in failing to achieve the standards for healthy rangelands, the use will be adjusted by the response specified in the instrument that authorized the use.

The NEPA analysis for renewals and modifications of livestock grazing permits/leases that includes lands within SFAs and PHMAs will include specific management thresholds based on GRSG habitat objectives (Tables 2-2 and 2-3) and Land Health Standards (43 CFR 4180.2), and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.

MD LG 5: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

BLM monitoring will be used to evaluate progress toward achieving land health standards within PHMAs and, where not achieved, to determine if existing grazing management practices or levels of grazing use on public lands are significant factors in failing to meet, maintain or make progress towards achieving the standards and conform with the guidelines, which through this process will identify appropriate actions to address non-achievement and non-conformance.

Allotments within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and

conditions of the grazing permits. Field checks include monitoring for actual use, utilization, and use supervision.

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

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Conversions in kinds of livestock and changes in season of use will be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with rangeland health objectives. Grazing leases will be adjusted to accurately reflect the kind of livestock use on public land in all allotments.

Kemmerer RMP:

Current amounts, kinds, and seasons of livestock grazing uses will be authorized until rangeland health standards assessment results and (or) monitoring indicates a grazing use adjustment is necessary, or that a kind and (or) class of livestock or season of use modification can be accommodated.

Newcastle RMP:

Any adjustments in livestock grazing use will be made as a result of monitoring and consultation with grazing permittees. Monitoring studies will be conducted using the current BLM-approved methodology.

Pinedale RMP:

Conversions from one type of livestock to another will be evaluated on a case-by-case basis, including an environmental analysis, and will be authorized in conformance with the goals and objectives of the RMP.

Rawlins RMP:

The current amounts, kinds, and seasons of livestock grazing use will be authorized until monitoring, field observations, ecological site inventory, or other data acceptable to BLM indicates a grazing use adjustment is needed, as appropriate. Requests for changes in season-of use or kind-of-livestock will be considered on a case-by-case basis. Any decision regarding changes in grazing use will include cooperation, consultation, and coordination with the grazing permittees and the interested public.

Green River RMP:

The Wyoming Standards for Healthy Rangelands (BLM 1997a) will apply to all resource uses on BLM-administered lands. These standards are the minimal acceptable conditions that address the health, productivity, and sustainability of the rangeland. The standards describe healthy rangelands rather than rangeland by-products.

Achievement of a standard is determined through observing, measuring, and monitoring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. The standards will direct the management of public lands and focus the implementation of this activity plan toward the maintenance or attainment of healthy rangelands.

MD LG 6: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR 4110.2-3.

MD LG 7: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

When periods of drought occur, where appropriate, the AO will evaluate strategies to address drought through coordination with grazing permittee/lessee and annual billings processes.

In cooperation with livestock grazing permittees/lessees, drought contingency plans will be developed at the appropriate landscape unit that provide for a consistent/appropriate BLM response. Contingency plans shall establish strategies for addressing ongoing drought and post-drought recovery.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Other management considerations for use of stock driveway withdrawals (SDW) will include providing emergency use for relief from fire, drought, or other natural causes or to meet management objectives in adjoining allotments that require rest. These other uses will be addressed on a case-by-case basis and may occur any time during the year provided the AO has determined adequate forage is available and it does not interfere with regular trail use. The decision determining there is adequate forage will be documented and filed in the appropriate SDW file. Consultation and coordination with livestock owners who regularly use the respective SDW will be made prior to authorizing this type of use. This use will be authorized in accordance with federal grazing regulations (also see MD LG 9).

A drought contingency plan will be developed to maintain adequate habitat components for viable fish, wildlife, and Special Status Species populations.

Range Improvement Projects

MD LG 8: Specific to management for all GRSG Habitat, all RMPs are amended as follows:

In GHMAs and PHMAs, existing range improvements (e.g., fences, livestock/wildlife watering facilities) will continue to be evaluated and modified when necessary.

The potential risk to GRSG and its habitats from existing structural range improvements will be evaluated. The potential for modification of those structural range improvements identified as posing a risk will be addressed.

Supplements and supplemental feeding will continue to be authorized where appropriate.

Outside of PHMAs and GHMAs, and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Identified hazard fences will be modified and new fences will be constructed in accordance with the BLM Fencing Handbook 1741-1. Decision 4010.

Placement of salt, mineral, or forage supplements for livestock will not be allowed within 0.25 mile of water, wetlands, and riparian areas, unless written analysis shows that watershed, riparian, wetland, wildlife, and vegetative values will not be adversely impacted. Forage supplements will be required to be "certified weed-free."

Kemmerer RMP:

BLM fencing standards will be applied to newly constructed fences on BLM-administered lands within the planning area.

Existing fences will be eliminated or modified to reduce conflicts on a case-by-case basis.

Livestock salt or mineral supplements will be located a minimum of 0.25 mile away from water sources, riparian areas, and aspen stands. Buffers will be based on resource concerns on a case-by-case basis.

Newcastle RMP:

Fence construction will be required to meet current BLM fence standards.

Fences on BLM-administered public land surface that cause documented wildlife conflicts will be removed, reconstructed, or modified, as appropriate or necessary, to eliminate or reduce the conflict.

Construction of fences that interfere with movements of big game species in crucial big game winter range will not be allowed on BLM-administered public land surface.

Pinedale RMP:

Mineral supplement blocks will be placed in locations that promote proper grazing distribution and prevent inappropriate livestock use on riparian habitat; for example, by locating supplements on ridgetops and/or approximately 0.25 mile from riparian habitat. Placement of supplements near water sources, such as wells and reservoirs, will consider rangeland objectives, such as grazing distribution, wildlife habitat requirements, and reclamation success. Mineral supplement blocks will not be placed within 0.25 mile of an occupied sage-grouse lek. Mineral supplement blocks will not be placed within 0.25 mile of known Special Status Plant Species locations.

Rawlins RMP:

New fence construction will be authorized according to BLM standards unless modified following consultation with affected parties. Existing fences will be modified according to current BLM standards and according to wildlife and livestock management needs.

Green River RMP/JMH CAP:

Where documented wildlife conflicts with fencing on public lands occur, fences will be modified, reconstructed, or, if necessary, removed. Herding control of livestock will be encouraged as an alternative to fencing. Fence construction will be in accordance with BLM design standards and located so as not to overly impede wildlife movement. Consideration will also be given to Special Status Species and wild horse movement.

Green River RMP:

Livestock water developments and range improvements will be considered to maintain or improve resource conditions, enhance livestock distribution, or both. Compatibility with special status plant species will be required. Water developments and/or range improvements proposed in sensitive areas will be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects will occur.

Salt or nutritional supplements will be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources will not be adversely affected. These supplements also will be prohibited on areas inhabited by special status plant species. Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources will be encouraged to better distribute livestock.

JMH CAP:

Livestock water developments and range improvements will be considered to maintain or improve resource conditions, enhance livestock distribution, or both. Compatibility with special status plant species will be required. Water developments and/or range improvements proposed in sensitive areas will be considered only if wildlife habitat and resource conditions were maintained or improved and no significant or irreversible adverse effects will occur.

Salt or nutritional supplements will be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources will not be adversely affected. These supplements also will be prohibited on areas inhabited by special status plant species. Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources will be encouraged to better distribute livestock.

Livestock Trailing

MD LG 9: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Livestock trailing that is authorized will include a trailing plan to utilize non-habitat to the extent possible, include specific routes and timeframes for trailing, utilize existing trails, and avoid stopovers on occupied leks, as appropriate.

The following RMP decisions remain in effect with the modification described above:

Casper RMP:

The revocation of withdrawals for those trails that are no longer active will be reviewed and recommended and these lands will be incorporated into adjacent allotments (46,050 acres). Grazing leases will be offered to the respective grazing lessees. All remaining SDW lands for trail use (55,680 acres) will be retained.

Kemmerer RMP:

Current livestock trails will be retained. Livestock trailing use will occur within 0.5 mile of the mapped centerline.

Pinedale RMP:

Adequate stock trails will be maintained to support livestock trailing needs.

Riparian Area Management

MD LG 10: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Grazing between riparian habitats and upland habitats will be balanced to promote the production and availability of beneficial forbs to GRSG for use during nesting and brood-rearing. Grazing in meadows, mesic habitats, and riparian pastures also will be balanced to promote the production and availability of beneficial grasses and forbs for use during late brood-rearing within PHMAs, while maintaining upland conditions and functions.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

Lotic and lentic wetland/riparian areas will be managed toward Proper Functioning Condition (PFC).

The BLM will manage toward PFC and identified Desired Plant Community (DPC) on 350 miles of lotic and adjacent riparian habitat and 10,000 acres of lentic habitat to meet fish, wildlife, and Special Status Species habitat requirements.

Kemmerer RMP:

Livestock conversions will be allowed in allotments with riparian concerns only when a plan is approved to address riparian issues. Management actions and range improvements proposed to address riparian issues will have to be implemented prior to authorizing the conversion. Livestock conversions may be approved only after completion of a suitability study for the conversion. The conversion may be authorized if it is determined that riparian habitats will be maintained or improved by the conversion.

Pinedale RMP:

Meet the Wyoming Standards for Rangeland Health and maintain or enhance wetland and riparian vegetation to achieve Proper Functioning Condition.

Grazing systems will be designed to maintain or improve watershed and range condition; for example, through changing seasons of use, implementing rotational or other grazing management systems, or developing infrastructure for livestock management.

In allotments with riparian habitat, grazing management actions will be designed to maintain or achieve proper functioning condition.

Green River RMP:

Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover. New range improvements may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy.

JMH CAP:

Implementation of grazing management systems will assist in improving or maintaining the desired range condition. Approved AMPs, or other activity plans intended to serve as the functional equivalent to an AMP, for each of the designated grazing allotments will provide the necessary guidance for achieving grazing management objectives.

Appropriate actions for improving degraded rangeland and riparian habitat (i.e., meeting Wyoming Standards for Healthy Rangelands (BLM 1997a)) include, but will not be limited to, reduction of permitted animal unit months (AUM), modified turnout dates, livestock water developments, range improvements, modified grazing periods, growing season rest, riparian pastures, exclosures, implementation of forage utilization levels, and livestock conversions. These improvements will be considered individually using the method outlined in Appendix 2 of the JMH CAP ROD to ensure conformance with management objectives for the planning area and other resource values.

MD LG 11: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Range improvement projects will be planned and authorized in a way that contributes to rangeland health and maintains and/or improves GRSG and its habitat.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Green River RMP:

Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution.

JMH CAP:

Livestock water developments and range improvements will be considered to maintain or improve resource conditions, enhance livestock distribution, or both. Compatibility with special status plant species will be required. Water developments and/or range improvements proposed in sensitive areas will be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects will occur.

MD LG 12: Existing water developments associated with springs and seeps will be evaluated and associated pipelines/structures to those developments having a negative effect on PHMAs will be modified.

Wild Horses and Burros (WHB)

Management Decisions (MD)

MD WHB 1: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Manage herd management areas (HMAs) in GRSG habitat within established appropriate management level (AML) range to achieve and maintain GRSG habitat (see Tables 2-2 and 2-3).

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Green River RMP/JMH CAP:

Specific habitat objectives for herd management areas will be developed. Consideration will be given to desired plant communities, wildlife, watershed, livestock grazing, and other resource needs.

MD WHB 2: PHMA (core only) management objectives will be considered when evaluating AMLs.

MD WHB 3: PHMA (core only) management objectives will be considered when conducting land health assessments in BLM HMAs.

MD WHB 4: When conducting NEPA analysis for wild horse management activities, water developments or other rangeland improvements for wild horses in PHMAs, the direct and indirect effects to sage-grouse populations and habitat will be addressed. Water developments or rangeland improvements will be implemented using the criteria identified for domestic livestock identified above in PHMAs.

MD WHB 5: Coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments within all BLM HMAs.

Mineral Resources (MR)

Management Decisions (MD)

Fluid Minerals (Unleased Estate)

MD MR 1: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

The BLM will allow oil and gas leasing consistent and subject to the leasing stipulations analyzed in the timing, distance, disturbance, and density restrictions sections (Map 2-2) (see Appendix B – Fluid Mineral Stipulations). Ensure that leasing activities in PHMAs comply with GRSG resource management plan decisions and remain in compliance with laws, regulations and policy.

Fluid mineral leasing will be allowed in PHMAs (core only), except in areas that are closed to leasing due to the need to protect other sensitive resources.

MD MR 2: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Geophysical exploration projects that are designed to minimize habitat fragmentation within PHMAs will be allowed, except where prohibited or restricted by existing RMP decisions, and in conformance with timing and distances Management Decisions (see Decisions MD SSS 5 through MD SSS 10).

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

The blocks of public land identified as mapped in the Casper Field Office GIS database will be managed to retain intact blocks of native vegetation (192,550 acres, of which 131,880 acres are BLM-administered surface). In these areas, the following restrictions apply:

1. These blocks are (1) unavailable for oil and gas leasing, and (2) a geophysical operation on public surface for the life of the plan. Activities for existing oil and gas leases are managed intensively (see Appendix U of the Casper RMP). Existing leases will be allowed to expire and not be renewed.
2. Within these blocks, a withdrawal from the operation of the public land laws, including the mining laws will be pursued.
3. These blocks are closed to mineral material disposal. Existing permits will be allowed to expire without renewal or expansion.
4. These blocks are not open to wind/renewable energy development.
5. These blocks remain open to livestock grazing.
6. All allowed surface-disturbing activities within the designated blocks are subject to a Controlled Surface Use (CSU) restriction, minimizing surface disturbance to meet management objectives. Decision 4024

The North Platte River Special Recreation Management Area (SRMA) will continue to be open to oil and gas leasing and geophysical operations. Decision 7039

The area is unavailable for oil and gas leasing and geophysical exploration is not allowed. Decision 7047

The MA is unavailable for new oil and gas leasing. No geophysical operations will be allowed on public surface.

Activities on existing leases will be managed intensively to meet the objectives of the MA (see Appendix U of the Casper RMP – Intensive Management). To minimize surface-disturbing activities, oil and gas exploration and development will use directional drilling techniques and well twinning whenever practicable. Decision 7059

The Red Wall/Gray Wall complex is located entirely within the South Bighorns/Red Wall MA and is unavailable for new oil and gas leasing. No geophysical operations will be allowed on public surface. Activities

on existing leases will be intensively managed to meet the objectives of the MA (see Appendix U of the Casper RMP– Intensive Management). To minimize surface-disturbing activities, oil and gas exploration and development will use directional drilling techniques and well twinning whenever practicable. Decision 7063

Those lands currently open to oil and gas leasing will continue to be open to geophysical operations. Those lands open to oil and gas leasing, but subject to a No Surface Occupancy (NSO) restriction, may be open to geophysical operations should site specific NEPA analysis disclose a finding of no significant impact. No geophysical operations are allowed in areas closed for oil and gas leasing. Decision 2019

Kemmerer RMP:

Allow for geophysical exploration on lands throughout the planning area subject to identified conditions of approval.

Newcastle RMP:

Surface-disturbing and disruptive activities associated with all types of minerals exploration and development and with geophysical exploration will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.

Pinedale RMP:

Vehicle-based geophysical activities will be assessed on a case-by-case basis.
The use of surface and/or above-ground (Poulter shot) explosive charges for geophysical exploration will be assessed case by case.
Geophysical projects, including projects proposed in areas with an NSO restriction, will be analyzed and mitigation developed on a case-by-case basis.
Geophysical activities that are considered casual use actions are allowed within 0.25 mile of active sage-grouse leks provided that:

- Operations are conducted on designated roads and trails.
- Operations during the breeding season (March 1 through May 15) are conducted between the hours of 8:00 a.m. and 8:00 p.m.
- A 150-foot wide strip of undisturbed sagebrush is maintained around the perimeter of the lek for hiding and escape cover.

Rawlins RMP:

All lands open to oil and gas leasing consideration will also be open to geophysical exploration, subject to appropriate resource surveys, surface protection measures, adequate bonding, and adherence to State of Wyoming standards for geophysical operations.

Vehicular use for "necessary tasks" (as defined in the glossary), such as geophysical exploration including project survey and layout, will be permitted except where specifically prohibited (e.g., some SD/MAs).

Green River RMP:

Geophysical exploration (vehicles and detonation) activities will be prohibited within 0.5 mile of the Pinnacles Geologic Feature. Areas of sensitive heritage resources and geologic features, such as Boars Tusk, White Mountain Petroglyphs, special status plant species, WSAs, and historic trails, will remain closed. Receiver lines may be laid using foot traffic within these areas. Exceptions to these restrictions may be granted on a case-by-case basis subject to appropriate site-specific analysis and mitigation requirements.

The remainder of the planning area will be open to geophysical exploration, with application of appropriate mitigation. Rights-of-way limitations in the planning area apply to on- and off-road vehicle traffic used for geophysical activities. Exploration activities will be allowed in sensitive resource areas only if they can be performed with acceptable mitigation of impacts.

JMH CAP:

Geophysical exploration (vehicles and detonation) activities will be prohibited within 0.5 mile of the Pinnacles Geologic Feature. Areas of sensitive heritage resources and geologic features, such as Boars Tusk, White Mountain Petroglyphs, special status plant species, WSAs, and historic trails, will remain closed. Receiver lines may be laid using foot traffic within these areas. Exceptions to these restrictions may be granted on a case-by-case basis subject to appropriate site-specific analysis and mitigation requirements.

The remainder of the planning area will be open to geophysical exploration, with application of appropriate mitigation. Rights-of-way limitations in the planning area apply to on- and off-road vehicle traffic used for geophysical activities. Exploration activities will be allowed in sensitive resource areas only if they can be performed with acceptable mitigation of impacts.

Fluid Minerals (Leased Estate)

MD MR 3: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

In cases where federal oil and gas leases have been issued with stipulations varying from those in Appendix B for the protection of sage-grouse or their habitats, as provided in the applicable RMP decision, as revised or amended, their inclusion as APD COAs will be considered when approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5 and 36 CFR 228.108), including appropriate documentation of compliance with NEPA.

Overall consideration shall be given to minimizing the impact to sage-grouse through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to PHMAs or use and includes applicable and technical COAs. Selection and application of these measures shall be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas. For proposed operations in PHMAs, the Surface Use Plan of Operations (see 43CFR 3162.3-1(f)) shall address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and temporary facilities, traffic, phases of development over time, offsite mitigation, and expected periods of use associated with the proposed project. Seasonal habitats or project features related to potential sage-grouse impacts that are not addressed in the Surface Use Plan of Operations based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale for not including them.

In this process the BLM will evaluate, among other things:

1. Whether the conservation measure is "reasonable" (43 CFR 3101.1-2) and consistent with valid existing rights
2. Whether the action is in conformance with the approved LUP; and the effectiveness of the proposed mitigation measures.

The BLM will work with project proponents in these situations to promote measurable sage-grouse conservation objectives such as, but not limited to, consolidation of project related infrastructure to reduce habitat fragmentation and loss and to promote effective conservation of seasonal habitats and PHMAs (connectivity only) that support population management objectives set by the state.

The BLM will continue to work with project proponents and the WGFD to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats (based on vegetation, topography, or other habitat features) and resources whether inside or outside of PHMAs (utilizing DDCT analysis process). Valid existing rights will be recognized and respected.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Kemmerer RMP:

Choose and implement appropriate mitigation in a timely manner to minimize decreases in habitat function.

Utilize appropriate voluntary offsite compensatory mitigation to reduce impacts. This will be necessary if (1) all onsite mitigation has been accomplished and adverse effects have not been mitigated; or (2) if onsite mitigation is not feasible.

Pinedale RMP:

Offsite mitigation proposed by oil and gas or other operators can be considered and analyzed in future environmental documents as mitigation for proposed activities within the planning area. Proposed offsite mitigation will be described and analyzed for effectiveness in detail on a project-specific basis. Offsite mitigation will conform to requirements in the Pinedale RMP regarding the order of use of mitigation methods,

stipulations applied to offsite mitigation measures, and priority order for mitigating resource impacts onsite or offsite.

Green River RMP:

Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development. Limitations on the amount, sequence, timing, or level of development may occur. This may result in transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses.

JMH CAP:

COAs attached to an APD will be based on site-specific NEPA or other analysis and will establish specific, necessary mitigation measures not covered by stipulations for resource and environmental protection. Some areas will need more intensive mitigation measures to protect sensitive resources and provide for public health and safety. These intensive mitigation measures or COAs will mostly apply to areas with overlapping sensitive resources (e.g., Areas 2 and 3). Examples of intensive mitigation that can apply to all activities based on site-specific analysis include offsite placement of facilities, remote control monitoring, restricted or prohibited surface use including road construction, multiple wells from a single pad, central tank batteries/facilities, and pipelines and power lines concentrated in specific areas. In addition, refer to Section 3.12.3 for additional mitigation measures that may apply as part of the transportation plan.

MD MR 4: Within PHMAs, field offices will work with project proponents (including those within BLM) to site their projects in locations that minimize impacts to sensitive resources.

MD MR 5: Master Development Plans will be considered and encouraged for projects involving multiple proposed disturbances within PHMAs.

MD MR 6: Within PHMAs, unitization will be encouraged as a means of minimizing adverse impacts to sage-grouse to reduce fragmentation and surface disturbing and disruptive activities.

MD MR 7: The BLM shall closely examine the applicability of categorical exclusions in PHMAs and GHMAs. If extraordinary circumstances review is applicable, the BLM shall determine whether those circumstances exist. For proposed actions in PHMAs, determine whether a categorical exclusion is applicable and if so, closely examine the extraordinary circumstances, if applicable, to determine whether one or more exists that will require preparation of a NEPA analysis. If a categorical exclusion applies, and no extraordinary circumstances exist, determine whether preparing a NEPA analysis will help inform decision making.

MD MR 8: Federal Regulations, 43 CFR 3104.1 requires that a bond be furnished before any drilling or surface disturbance activities begin. The lessee, sublessee or the operator must furnish a surety or personal bond in the amount of at least $10,000 to ensure compliance with all the lease terms, including protection of the environment. With the consent of the surety and principal, the operator may use the bond of another party, such as the lessee. Each time there is a new operator, that operator must notify the BLM that he/she is the responsible operator, giving the particulars of the bond under which he/she will operate. The BLM can require an increase in a bond amount any time conditions warrant such an increase.

A reclamation bond will be required on all projects that is commensurate with the scope, scale, size of the project within PHMAs. Partial bonding may be appropriate depending on these factors.

MD MR 9: <u>Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:</u>

Produced water from coalbed natural gas (CBNG) wells will be treated and disposed of in collaboration and consistent with the requirements of the state, and required design features specified in Management Action 10 (see Appendix C).

<u>Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:</u>

Pinedale RMP:

Produced water from CBNG wells will be treated and disposed of in collaboration and consistent with the requirements of the state.

MD MR 10: Specific to management for GRSG, within PHMAs (core only), all RMPs are amended as follows:

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

Within PHMAs (non-core only) and outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Pinedale RMP:

BLM-permitted actions on split estate lands are subject to the same stipulations as leased federal mineral estate on federal surface lands, provided the stipulations do not adversely affect the surface owner's land use or actions. Exceptions to surface development restrictions may be granted if requested or agreed to by the surface owner.

MD MR 11: Within PHMAs where the federal government owns the surface and the mineral estate is in non-federal ownership, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.

Locatable Minerals

MD MR 12: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

252,160 acres within SFAs (see MD SSS 14 for identification of SFAs) will be recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights. A total of approximately 21,251,690 acres are open to locatable mineral location and entry (Map 2-3). Operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact PHMAs. The AO may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations (also called the project area which is defined in 43 CFR 3809.5 and 36 CFR 228.3).

These suggested conservation measures include measures that support the overall goals and objectives of the core population area strategy, though measures listed for protection of sage-grouse breeding, nesting, brood-rearing, and wintering may not be reasonable or applicable to the BLM's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5 and 36 CFR 228.3. The request containing the suggested conservation measures must make clear that the operator's compliance is not mandatory.

Notices or Plans of Operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15 day completeness review of notices [or modifications thereto] and 30 day completeness review of plans of operations [or modifications thereto], the proposed project area(s) where exploration, development, mining, access and reclamation will take place shall be reviewed for overlap of PHMAs in the corporate GIS database. If there is overlap, the BLM AO may notify the operator of ways that they may minimize impacts to PHMAs and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.

For values other than GRSG, the following RMP decisions remain in effect:

1,785,230 acres are withdrawn from mineral entry for the protection of sensitive resources.

Salable Minerals

MD MR 13: PHMAs will be open to mineral material exploration, sales, and free use permits, except in areas that are unavailable due to the need to protect other resource values.

All salable mineral activities within PHMAs will be considered, provided they can be completed in compliance within surface occupancy, seasonal restrictions, and disturbance and density stipulations (Map 2-4 and MD SSS 2, 3, 5 through 10) analyzed through the DDCT process.

MD MR 14: Within PHMAs closure and restoration of salable mineral pits no longer in use will be considered to meet sage-grouse habitat conservation objectives. Emphasis will be given to reclamation/restoration of PHMAs as a viable long term goal to improve sage-grouse habitat.

Non-Energy Leasable Minerals

MD MR 15: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

All non-energy leasable mineral activities will be considered in PHMAs, provided that the activities can be completed in compliance with all occupancy, timing, density and disturbance restrictions (Map 2-5).

Exploration licenses and prospecting permits will be considered with appropriate mitigating measures.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Portions of PHMAs will be unavailable for leasing in accordance with existing RMP decisions for resource values other than GRSG.

Kemmerer RMP:

Sodium: All public lands (outside of the Raymond Mountain WSA and exceptions identified below) within the planning area are available for sodium leasing consideration. Exploration for sodium will be considered on a case-by-case basis. Limited surface occupancy criteria contained in the Sodium Mineral Development Environmental Assessment will be applied on a case-by-case basis. No new sodium leases or exploration licenses may be issued on lands within the Raymond Mountain WSA. No new sodium exploration and leasing will be considered for Rock Creek/Tunp and Bear River Divide management areas.

Phosphate: All public lands (outside of the Raymond Mountain WSA and exceptions identified below) within the planning area are available for phosphate leasing consideration. Exploration for phosphate will be considered on a case-by-case basis. No new phosphate exploration and leasing will be considered for Rock Creek/Tunp and Bear River Divide management areas.

Pinedale RMP:

Should interest in other leasable minerals materialize in the future, leasing will be considered on a case-by-case basis, and the RMP will be amended as appropriate and necessary. The same surface disturbance restrictions will be used in analyzing leasing proposals and determining the issuance of any leases (for example, geothermal steam, coal, sodium, oil shale, and phosphate).

Green River RMP/JMH CAP:

The known sodium leasing area is open to exploration and consideration for leasing and developments, but is closed to prospecting permits.

The remainder of the planning area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities (areas closed to drilling, off road vehicle use, and explosive charges).

Sodium (trona) leasing will be considered on a case-by-case basis, and is subject to the same conditional requirements as oil and gas and coal, and the general management direction applied in this RMP.

Solid Leasable Minerals

MD MR 16: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1). The BLM will also consider that FWS has found "the core area strategy…if implemented by all landowners via regulatory mechanisms, would provide adequate protection for sage-grouse and their habitats in the state" when considering leasing coal in PHMA under the criteria set for at 43 CFR 3461.5(o)(1).

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

If coal development potential is shown to exist, all BLM-administered lands outside the Coal Development Potential Area (CDPA) will be considered for coal leasing, unless specifically closed to mineral leasing. The coal-screening process will be completed on all newly identified lands having coal development potential.

All BLM-administered lands within the CDPA identified in the 2001 Buffalo RMP maintenance action are acceptable for further consideration for coal leasing. The only exceptions are those lands determined unacceptable within the area or those lands that fall within PHMAs. The coal unsuitability criteria are re-evaluated whenever new coal lease applications are received.

Kemmerer RMP:

Process new coal lease applications by using the coal screening process. The coal screening process results will determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis will be required prior to leasing. Federal land within the proposed Haystack project area outside of the PHMA is determined acceptable for further consideration for coal leasing and development. No coal LBAs will be considered for Rock Creek/Tunp and Bear River Divide management areas.

Pinedale RMP:

Decisions on lands acceptable for leasing consideration for coal development will be made after an application is received and the coal screening process is conducted.

Rawlins RMP:

Federal coal lease applications will be accepted only on those federal coal lands with development potential identified as suitable for further leasing consideration after application of the coal unsuitability criteria (the above-mentioned approximately 51,250 acres and 2,318.7 million tons of surface minable federal coal).

Green River RMP/JMH CAP:

Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses.

MD MR 17: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Upon receipt of a coal lease application proposing underground mining methods that include surface operations and impacts within PHMAs, Criterion 15 will be applied and the area will be identified as suitable for further coal leasing consideration after consultation with the state and, where applicable, surface management agency to determine that all or certain stipulated methods of coal mining will not have a significant long-term impact on sage-grouse. Stipulated methods may include, but not limited to, underground mining methods with no placement of surface facilities except for purposes of health and human safety.

Unsuitability is not applied to underground operations without surface impacts (43 CFR 3461.1) This will be consistent with Instruction Memorandum (IM) WY WY-2012-019 says that the BLM will assess potential impacts to sage-grouse through the NEPA process, and that the state regulatory agency will apply this mitigation, as well as protective measures consistent with the state policy for solid leasable mining action at the permitting stage.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

If coal development potential is shown to exist, all BLM-administered lands outside the CDPA will be considered for coal leasing, unless specifically closed to mineral leasing. The coal-screening process will be completed on all newly identified lands having coal development potential.

All BLM-administered lands within the CDPA identified in the 2001 Buffalo RMP maintenance action are acceptable for further consideration for coal leasing. The only exceptions are those lands determined unacceptable within the area. The coal unsuitability criteria are re-evaluated whenever new coal lease applications are received.

Kemmerer RMP:

Process new coal lease applications by using the coal screening process. The coal screening process results will determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis will be required prior to leasing. Federal land within the proposed Haystack project area is determined acceptable for further consideration for coal leasing and development. No coal LBAs will be considered for Rock Creek/Tunp and Bear River Divide management areas.

Pinedale RMP:

Decisions on lands acceptable for leasing consideration for coal development will be made after an application is received and the coal screening process is conducted.

Rawlins RMP:

Federal coal lease applications will be accepted only on those federal coal lands with development potential identified as suitable for further leasing consideration after application of the coal unsuitability criteria (the above-mentioned approximately 51,250 acres and 2,318.7 million tons of surface minable federal coal).

Green River RMP/JMH CAP:

Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses.

MD MR 18: Coal exploration activities will be allowed in PHMAs if they can be completed in compliance to surface occupancy and disturbance and density stipulations analyzed through the DDCT process.

Exceptions to lease stipulations, Conditions of Approval, and terms and conditions

MD MR 19: Exceptions waivers, and modifications to lease stipulations, COAs, and terms and conditions (T&C), for sage-grouse will continue to be considered on a case-by-case basis consistent with approved LUPs and other BLM policy and regulations as they relate to exceptions within PHMAs and GHMAs.

Renewable Energy (RE)

Management Decisions (MD)

MD RE 1: Within PHMAs, all RMPs are amended as follows:

Wind energy development would be avoided in PHMAs (Map 2-6), and not allowed unless it can be sufficiently demonstrated that the development activity would not result in declines of PHMA populations. Sufficient demonstration of "no declines" should be coordinated with the WGFD and USFWS.

For values other than GRSG, the following RMP decisions remain in effect:

Areas that are currently unavailable due to the need to protect sensitive resources would remain unavailable to wind energy development.

MD RE 2: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

The use of guy wires for meteorological towers (MET) tower supports would be avoided within PHMAs. All existing and any new unavoidable guy wires should be marked with recommended bird deterrent devices.

The siting of new temporary MET towers within PHMAs would be avoided within 2 miles of occupied sage-grouse leks, unless they are out of the direct line of sight of the occupied lek.

Outside of PHMAs, the following RMP decisions remain in effect:

Kemmerer RMP:

New MET towers would be avoided within 1 mile of occupied sagebrush obligate habitats, unless anti-perch devices are installed. MET towers relying on guy wires for support would be prohibited in these habitats. Exceptions could be made if NEPA analysis shows little or no impact to sagebrush obligate species.

Rawlins RMP:

MET towers would be authorized on a case-by-case basis from 0.25 mile to 1 mile of an occupied GRSG and sharp-tailed grouse lek.

Lands and Realty (LR)

Management Decisions (MD)

Land Use Authorizations

MD LR 1: Specific to management for GRSG, all RMPs are amended as follows:

PHMAs will be managed as right-of-way (ROW) avoidance areas for new ROW or Special Use Authorization (SUA) permits (Map 2-7).

Within PHMAs where new ROWs/SUAs are necessary, new ROWs/SUAs will be located within designated RMP corridors or adjacent to existing ROWs/SUAs where technically feasible. Subject to valid existing rights including non-federal land inholdings, required new ROWs/SUAs will be located adjacent to existing ROWs/SUAs or where it best minimizes sage-grouse impacts. Consider the likelihood of development of not-yet-constructed surface-disturbing activities, as defined in Table 2 of the Monitoring Framework (Appendix D) under valid existing rights.

For values other than GRSG, the following RMP decisions remain in effect:

Portions of PHMAs will be managed as ROW exclusion areas in accordance with existing RMP decisions for resource values other than GRSG.

MD LR 2: Specific to management for GRSG, all RMPs are amended as follows:

Within GHMAs where new ROWs/SUAs are necessary, new ROWs/SUAs will be co-located within existing ROWs/SUAs where technically feasible.

Appropriate sage-grouse seasonal timing constraints will be applied.

For values other than GRSG, the following RMP decisions remain in effect:

Portions of GHMAs will be managed as ROW avoidance areas in accordance with existing RMP decisions for resource values other than GRSG.

MD LR 3: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

New Transmission Lines (greater than 115 kV):

New transmission lines greater than 115 kV in PHMAs (core only) will be allowed only (1) within the 2-mile wide transmission line route through PHMAs (core only) population areas in south-central and southwestern Wyoming (Attachment 1 from Executive Order (EO) 2015-4); (2) when located within 0.5 miles or less of an existing 115 kV or greater transmission line constructed prior to 2008; or (3) in designated RMP corridors authorized for above-ground transmission lines. Transmission lines routed using one or more of the three criteria listed above will not be counted against the DDCT 5% disturbance cap.

New transmission lines greater than 115 kV proposed outside of these areas will be considered where it can be demonstrated that declines in sage-grouse populations can be avoided through project design and/or mitigation. These projects will be subject to the density and disturbance restrictions for PHMAs.

Construction of new transmission lines will adhere to the restrictions associated with conducting activities within PHMAs.

Review of transmission line proposals will incorporate the Framework for Sage-grouse Impacts Analysis for Interstate Transmission Lines and other appropriate documents consistent with the three routing criteria described above.

New projects within PHMAs that may require future utility lines, including distribution and transmission lines or pipelines, will include the proposed utility lines in their DDCT as part of the proposed disturbance. Lines permitted but not located in the above mentioned routes or a designated corridor will be counted towards the 5% disturbance calculation (line disturbance is equal to the anticipated construction footprint or construction ROW width multiplied by length and includes all access roads, staging areas, and other surface disturbance associated with construction outside of the construction ROW).

New Electric Distribution Lines (less than 115 kV):

New electric distribution lines will be buried where feasible and economically feasible. If not economically feasible, distribution lines may be authorized when effectively designed/mitigated to protect GRSG and the AO determines that overhead installation is the action alternative with the fewest adverse impacts while still meeting the project need. Agricultural and residential lines will be considered to be adequately mitigated for GRSG if constructed at least 0.6 mile from the lek perimeter with appropriate timing constraints and constructed to the latest APLIC guidance. These ROW authorizations will be subject to approval by the State Director.

Priority Transmission Lines:

PHMAs are designated as avoidance areas for high voltage transmission line and pipeline ROWs, except for the transmission projects specifically identified below. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this proposed plan, including the Required Design Features (RDF) and avoidance criteria presented in Appendix C of this document. The BLM is currently processing an application for Gateway South, Gateway West and TransWest Express and the NEPA review for these projects is well underway. The BLM is analyzing GRSG mitigation measures through the project's NEPA review process.

Pipelines:

New pipelines through PHMAs will be allowed: (1) within an RMP corridor currently authorized for that use or designated through future RMP amendments; or (2) constructed in or adjacent to existing utilities (buried and above-ground) or roads. Pipelines constructed in RMP corridors or adjacent to existing utilities or roads will require completion of a DDCT analysis for baseline data collection but the project is not required to meet the threshold of 5%. However, within 6 months of the completion of construction, the project proponent will provide the AO with as-built drawings so that total disturbance within core area can be calculated annually.

The following RMP decisions remain in effect with the modification described above:

Casper RMP:

No new corridor designations will be made in Bates Hole. When placement of a major ROW facility within a designated corridor is not possible, and for smaller ROW and other linear facilities, placement will be adjacent to existing facilities or disturbances. Cross-country placement of ROW and other linear facilities will be allowed only when placement in a designated corridor or adjacent to an existing facility is not practical or feasible. The extent of all surface disturbances will be minimized.

No new corridors will be established in the Sand Hills Management Area (MA); ROWs will be allowed when management objectives for the area can still be achieved.

All currently designated corridors will be maintained. All special restrictions that apply to types of use/facilities on the corridors will be removed, except as noted for the Oregon Trail Road ROW Corridor, Segment A. The corridors include 351,020 acres, of which 94,580 acres are federal surface. The widths/size

of designated corridors will not change. Special restrictions applying to types of use/facilities on the corridors will be removed on a case-by-case basis. Existing corridors include:

1. Oregon Trail Road Corridor, Segment A
2. Oregon Trail Road Corridor, Segment B
3. Oregon Trail Road Corridor, Segment C
4. Poison Spider/Gas Hills Road Corridor
5. Highway 20-26 Corridor
6. Wyoming Highway 259/U.S. 87 Corridor
7. Wyoming Highway 387 Corridor
8. Lost Cabin-Arminto Road Corridor
9. RMP Change No. 2012-03, including the West Wide Energy Corridor
10. Cabin Creek Corridor
11. Existing Oregon Trail Road ROW Corridor, Segment A.

Oregon Trail Road ROW Corridor, Segment A allows additional ROW facilities provided they are subsurface, surface, or low profile developments. ROW facilities that introduce visual intrusions on the skyline along the corridor will not be allowed. Special restrictions applying to types of use/facilities on the corridors will be removed on a case-by-case basis, and a new corridor, to be called the Cabin Creek Corridor, will be designated.

Future Corridor Adjustments and New Corridor Designations:

Future corridor adjustments and new corridor designations will be made only when facility placement within an existing designated corridor is incompatible, unfeasible, or impractical and when the environmental consequences can be adequately mitigated. Problems of technical compatibility between facilities and spacing of facilities in corridors will be solved on a case-by-case basis. Special restrictions applying to types of use/facilities on the corridors will be removed on a case-by-case basis.

South Bighorns/Red Wall Management Area:

No corridors will be designated; however, ROWs will be allowed on a case-by-case basis when management objectives for the area can still be achieved.

Kemmerer RMP:

Utility corridors will be designated, based on use (i.e., power lines, pipelines, and fiber optic lines).

Preferred utility corridors will be 2 miles wide (width will be determined based on resource values) and designated as follows, but variances will be allowed based on application where conflicts with other resources were minimal or can be mitigated through resource-specific stipulations:

High-voltage power line corridors will be established north of and parallel to I-80, and along Wyoming State Highway 89 from the junction of I-80 and the Wyoming state line.

Fiber optic and low-voltage power line corridors will be located along currently established road systems (e.g., interstate or state highways and paved county roads).

Newcastle RMP:

Utility/transportation systems will be located adjacent to existing utility/transportation systems whenever practical. Areas to be avoided for new facility placement and routes will be identified on a case-by-case basis, rather than attempting to establish utility corridors.

Pinedale RMP:

Utility facilities will be restricted to existing routes and designated corridors where practicable, including environmental and socioeconomic considerations. Corridor routes include U.S. Highways 189 and 191 and State Highways 189, 191, 350, 351, 352, 353, and 354. New corridors may be established as oil and gas fields are developed.

Rawlins RMP:

All BLM-administered public lands, except wilderness study areas (WSA) and some SD/MAs (including areas of critical environmental concern (ACEC)/Special Interest Areas (SIA)), will be open to consideration for placement of utility ROW systems. Each utility ROW will be located adjacent to existing facilities, when possible. Areas with important or sensitive resource values will be avoided.

Existing major transportation and utility ROW routes will be designated corridors. However, major transportation routes within the planning area that are located east of the Carbon County-Albany County line will not be considered for ROW corridor designation because of the scattered public landownership pattern in the area. All corridors will be designated for power lines (above ground and buried), telephone lines, and fiber optic lines.

Specific proposals will require site-specific environmental analysis and compliance with established permitting processes.

Activities generally excluded from ROW corridors include mineral materials disposal, range and wildlife habitat improvements involving surface disturbance and facility construction, campgrounds, and public recreation facilities and other facilities that will attract public use.

ROW facilities will not be placed adjacent to each other if issues with safety or incompatibility or resource conflicts were identified. The designated width, allowable uses, and excluded uses for each corridor may be modified during implementation of the Approved RMP.

Green River RMP:

Areas designated as utility windows will be preferred locations for future grants. Five windows have been identified: 2 east-west, 3 north-south. Other areas will be considered for rights-of-way on a case-by-case basis. Windows 0.5 mile in width have been identified for the placement of utilities. The northern east-west window will be for underground facilities only, and the southern east-west window will be for both above and below ground facilities. A 0.5 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities.

JMH CAP:

The planning area, with the exception of defined exclusion and avoidance areas, will be open to considering grants of rights-of-way if area objectives can be met. Exclusion areas are closed to rights-of-way. Avoidance and special management areas not identified as exclusion areas will be open to consideration only after site-specific analysis demonstrates area objectives can be met (see glossary) in GRSG potential nesting habitat.

MD LR 4: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

Maintenance/replacement of existing structures will be allowed subject to valid and existing rights. Upgrades will be considered, subject to mandatory RDFs (Appendix C).

Existing guy wires shall be removed or appropriately marked with bird flight diverters to make them more visible to sage-grouse in flight. Power lines (distribution and transmission) will be designed to minimize wildlife related impacts and constructed to the latest APLIC standards.

Outside of PHMAs the following RMP decisions remain in effect:

Kemmerer RMP:

New utility lines will be buried or BLM-approved anti-perch devices will be installed on all new utility lines within sagebrush and/or semiarid shrub-dominated habitats, unless NEPA analysis shows little or no impact without burial or modification.

MD LR 5: Within PHMAs where existing authorizations, ROWs, or SUAs have had some level of development (e.g., road, fence, and well) and are expired and are no longer in use, the site will be reclaimed by removing these features and restoring the habitat. Power lines (distribution and transmission) will be designed to minimize wildlife related impacts and constructed to the latest APLIC standards.

MD LR 6: Within PHMAs, specific to management for GRSG, all RMPs are amended as follows:

The use of guy wires for meteorological towers (MET) tower supports will be avoided within PHMAs. All existing and any new unavoidable guy wires shall be marked with recommended bird deterrent devices.

The siting of new temporary MET towers within PHMAs will be avoided within 2 miles of occupied sage-grouse leks, unless they are out of the direct line of sight of the occupied lek.

Outside of PHMAs, the following RMP decisions remain in effect:

Kemmerer RMP:

New MET towers will be avoided within 1 mile of occupied sagebrush obligate habitats, unless anti-perch devices are installed. MET towers relying on guy wires for support will be prohibited in these habitats. Exceptions can be made if NEPA analysis shows little or no impact to sagebrush obligate species.

Rawlins RMP:

MET towers will be authorized on a case-by-case basis from 0.25 mile to 1 mile of an occupied GRSG and sharp-tailed grouse lek.

Land Tenure

MD LR 7: Within PHMAs and GHMAs, specific to management for GRSG, all RMPs are amended as follows:

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

Exceptions will be considered where there is mixed ownership and land exchanges will allow for additional or more contiguous federal ownership patterns within PHMAs.

For PHMAs with minority federal ownership, an additional, effective mitigation agreement will be included for any disposal of federal land. As a final preservation measure, consideration shall be given to pursuing a permanent conservation easement.

For lands in GHMAs that are identified for disposal, the BLM will only dispose of such lands consistent with the goals and objectives of this plan, including, but not limited to, the RMP goal to conserve, recover, and enhance sage-grouse habitat on a landscape scale.

For values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

224,830 acres of public lands are identified as potentially suitable for disposal. At the implementation stage, site-specific analysis with public participation will be conducted. Based on the analysis and public comments received, a determination will be made on whether disposal of the parcel is in the public's best interest. If it is not in the public's best interest, the parcel will be retained in public ownership.

Restricted Disposal – dispose of 5,450 acres on a restricted basis.

Allow land-use authorizations under FLPMA Section 302(b) leases and permits to meet public demand.

Evaluate on a case-by-case basis as proposals are presented. Potential lease and permit areas may include, but are not limited to the following:

- Areas where there are documented or existing trespass facilities that can be resolved by an authorization under this section
- Areas along major highways where developments may facilitate public needs
- Areas in or adjacent to residential, agricultural, commercial, or industrial developments.

The BLM will pursue acquisition of lands and interest in lands in the South Bighorns/Red Wall area.

MD LR 8: Within PHMAs and GHMAs, specific to management for GRSG, all RMPs are amended as follows:

Areas where acquisitions (including subsurface mineral rights) or conservation easements will benefit sage-grouse habitat will be identified.

Outside of PHMAs and GHMAs, and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

The BLM will pursue acquisition of lands and interest in lands in the Bolton Creek Drainage and Bates Creek areas.

MD LR 9: Sage-grouse habitat requirements will be utilized to prioritize parcels for exchange or acquisition within PHMAs.

MD LR 10: Within PHMAs, non-mineral withdrawals will be evaluated to determine if the withdrawal action is consistent with sage-grouse conservation.

Recreation and Visitor Services (REC)

Management Decisions (MD)

MD REC 1: Specific to management for GRSG or PHMAs, all RMPs are amended as follows:

BLM Special Recreation Permits (SRP) will be allowed in PHMAs, unless negative impacts to sage-grouse cannot be adequately mitigated.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Casper RMP:

The entire planning area will remain open to dispersed recreation. The camping limit on public lands is set by BLM policy and is currently limited to 14 days. Emphasis will be placed on providing interpretive and information signs and materials for public land visitors, maintaining existing facilities to a high standard consistent with the recreational setting, and limiting development of additional facilities to those areas where public recreational use of surrounding public lands requires. Work with state, local groups, and adjacent landowners will be conducted to identify and develop recreational trails, both motorized and non-motorized, when the opportunities presents themselves. SRPs will be allowed for commercial, noncommercial, and competitive events on a case-by-case basis. Cooperation will be maintained with a variety of user groups, especially in the local area, to provide diverse recreational opportunities for enjoyment of public lands. BLM will pursue acquisition of lands and interest in lands in the Rattlesnake Range and Pine Ridge areas, as well as promote and support recreation-based tourism.

Kemmerer RMP:

Allow dispersed recreation and permit special recreational activities (e.g., outfitting and guiding permits and off-highway vehicle (OHV) events permitted on an annual basis after evaluation).

Green River RMP:

Special recreation permits will be considered on a case-by-case basis. Appropriate mitigation will be included in special recreation permits, commercial recreation uses, and major competitive recreation events to provide resource protection and public safety.

JMH CAP:

Special recreation use permits for managed activities that occur in the JMH CAP planning area will be reviewed and subject to recommendations made by the Rock Springs Field Office. This will allow the Rock Springs Field Office to track the amount, location, and timing of organized activity occurring within the planning area to monitor resource pressure. The permit evaluation process will consider the nature of the event, potential impacts to resources, conflicts with other events, and impacts to the quality of other visitors' experiences. Mitigation measures necessary to protect the resources will be included in any permit issued. A plan of operation will be required for all commercial recreational operators and outfitters. The plan will describe the type, extent, and location of the recreation use and the mechanisms by which the operator/outfitter will prevent impacts to environmental resources. Any requests in special recreation use permit applications to remove natural resources will be evaluated on a case-by-case basis after an environmental analysis process.

MD REC 2: Construction of recreation facilities within PHMAs must conform with the avoidance and minimization measures of this plan. If it is determined that these conservation measures are inadequate for the conservation of GRSG, the BLM will require and ensure compensatory mitigation that provides a net conservation gain to the species.

Travel and Transportation (TTM)

Management Decisions (MD)

MD TTM 1: Specific to management for GRSG, all RMPs are amended as follows:

Within PHMAs, designate the non-sand dune portions of the following OHV Open Areas as OHV Limited Area. The OHV limitation will ultimately be to "Designated Routes" as determined through a subsequent implementation/activity level Travel Management Plan. In the interim, motorized use on existing routes may occur; however, no new routes may be created without specific authorization: Rawlins Field Office: Dune Pond Cooperative Management Area.

Rock Springs Field Office: Portion of the Greater Sand Dunes Recreation Area.

The following RMP decisions remain in effect:

The Casper Field Office Poison Spider OHV Park (290 acres) will remain as an "open" OHV area.

MD TTM 2: Within PHMAs and GHMAs, all motorized use (of which OHVs are a subset) will be limited to designated routes. Route designations will occur in subsequent implementation/activity level Travel Management Plans. In the interim motorized use on existing routes may occur; however, no new routes may be created without specific authorization. In PHMAs and GHMAs, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).

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

MD TTM 3: New local or collector roads (as defined in BLM Manual 9113) will be avoided within 1.9 miles of the perimeter of occupied sage-grouse leks within PHMAs.

All new roads will be prohibited within 0.6 miles of the perimeter of occupied sage-grouse leks within PHMAs.

MD TTM 4: Within PHMAs, no upgrading of existing routes that will change route category or capacity will be allowed unless the upgrading will have minimal impact on sage-grouse in PHMAs, was necessary for motorist safety, or eliminated the need to construct a new road.

MD TTM 5: In PHMAs, existing roads or realignments will be used to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, any new road will be constructed to the absolute minimum standard necessary, and the surface disturbance will be added to the total disturbance in the PHMA.

MD TTM 6: Specific to management for GRSG or PHMAs, all RMPs are amended as follows:

For roads, primitive roads and trails not designated in travel management plans within PHMAs, natural reclamation of roads and trails will be allowed in appropriate situations where additional resource damage is not foreseeable.

This will include primitive route/roads that were not designated in wilderness study areas and within lands with wilderness characteristics that have been selected to be managed to retain those characteristics for protection.

In PHMAs, locate new roads that will have relatively high levels of activity (accessing multiple wells, housing development) greater than 1.9 miles from the perimeter of occupied GRSG leks. Locate new other roads used to provide facility site access and maintenance >0.6 miles from the perimeter of occupied GRSG leks.

Outside of PHMAs and/or for values other than GRSG, the following RMP decisions remain in effect with the modification described above:

Kemmerer RMP:

Roads and two-track routes determined to be unauthorized or redundant and unnecessary for resource management purposes will be reclaimed to achieve surrounding native conditions.

Rawlins RMP:

Roads or trails that are eroding beyond a reasonable level will be fixed or closed.

JMH CAP:

Transportation planning will provide for access to achieve multiple-use goals while providing maximum protection for crucial habitats and sensitive resources and will consider:

Closing and rehabilitating unused roads and trails and those causing resource damage. This will be subject to county review of existing rights-of-way needs.

MD TTM 7: Within PHMAs, when reseeding roads and trails, appropriate seed mixtures will be used and the use of transplanted sagebrush will be considered.

Special Designations and Other Management Areas (SDMA)

Management Decisions (MD)

MD SDMA 1: New sage-grouse conservation ACECs will not be designated.

3. Consultation, Coordination, and Public Involvement

The BLM land use planning activities are conducted in accordance with NEPA requirements, CEQ regulations, and Department of the Interior and BLM policies and procedures implementing NEPA. The NEPA and associated laws, regulations, and policies require the BLM to seek public involvement early in, and throughout, the planning process. Public involvement and agency consultation and coordination, which have been at the heart of the planning process leading to this ARMPA, were achieved through Federal Register notices, public and informal meetings, individual contacts, media releases, planning bulletins, and the Wyoming GRSG website. (https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=renderDefaultPlanOrProjectSite&projectId=9153)

3.1 Consultation and Coordination

The BLM collaborated with numerous agencies, municipalities, and tribes throughout the preparation of this ARMPA. The BLM outreach efforts and collaboration with cooperating agencies are described in Section 5.1 of the Proposed RMP Amendments and Final EIS. The following agencies accepted the offer to participate in the BLM planning process as cooperating agencies:

- City of Laramie
- Converse County

- Crook County
- The Governor's Office
- Lincoln County
- Lincoln County Conservation District
- Lingle–Fort Laramie Conservation District
- Little Snake River Conservation District
- Medicine Bow Conservation District
- Natrona County
- Saratoga Encampment Rawlins Conservation District
- South Goshen Conservation District
- Sublette County
- Sublette County Conservation District
- Sweetwater County
- Sweetwater County Conservation District
- Uinta County
- Uinta County Conservation District
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Department of Agriculture: Animal and Plant Health Inspection Service
- Weston County
- Wyoming Department of Environmental Quality
- Wyoming Department of Agriculture
- Wyoming Game and Fish Department
- Wyoming State Historic Preservation Office
- Wyoming State Planning Office.

The BLM formally invited the cooperating agencies to participate in developing the alternatives for the RMPA and EIS and to provide data and other information related to their agency responsibilities, goals, mandates, and expertise.

Section 7 Consultation

In accordance with Section 7 of the Endangered Species Act of 1973 (ESA), as amended, BLM requested a species list from USFWS of any federally listed, federally proposed, or current federal candidate species that may be present in the RMP planning area in 2011. This species list was updated through ongoing consultation with the USFWS as the project progressed. The BLM initiated informal consultation with the USFWS under Section 7 of the ESA on March 7, 2015. Informal Section 7 consultation was completed on June 17, 2015, when the USFWS provided a letter of Concurrence on "not likely to affect" and "no jeopardy" determinations.

Native American Consultation

In accordance with FLPMA and BLM guidance, the BLM engaged in consultation with Native American representatives for the RMPA planning process. The BLM maintained ongoing communications with relevant Native American groups, including the following:

- Shoshone-Bannock Tribes of the Fort Hall Reservation
- Blackfeet Tribe
- Fort Peck Assiniboine/Sioux Tribe
- Northern Cheyenne Tribe
- Santee Sioux Tribe
- Standing Rock Sioux Tribe
- Cheyenne River Sioux Tribe
- Crow Creek Sioux Tribe

- Oglala Sioux Tribe
- Rosebud Sioux Tribe
- Sisseton-Wahpeton Oyate Tribe
- The Ute Tribe of the Uintah and Ouray Reservation
- Eastern Shoshone Tribe
- Northern Arapaho Tribe
- Three Affiliated Tribes – Mandan, Hidatsa and Arikara Nation
- Yankton Sioux Tribe
- Lower Brule Sioux Tribe
- Crow Tribe

As part of the NEPA scoping and consultation process, and as an opportunity to provide comment pursuant to Section 106 of the NHPA, the BLM notified the Wyoming State Historic Preservation Officers (SHPO) seeking information regarding concerns with historic properties and land use planning direction included in these ARMPA. The BLM sought information about historic properties in consideration of land use planning decisions included in this ARMPA in accordance with the National Programmatic Agreement (PA) between the BLM, Advisory Council on Historic Preservation, and National Conference of State Historic Preservation Officers and the State Protocol Agreement between the BLM and the SHPO. The BLM incorporated the information it received from SHPOs and Tribes into the Proposed RMPAs and considered such information in making the land use plan amendment decisions. The BLM has met its obligations under Section 106 of the NHPA, 54 U.S.C. § 306108, as outlined in the National PA and the State Protocols.

The BLM initiated the Wyoming Governor's Consistency Review required by 43 CFR 1610.3-2(e) by letter from the BLM State Director dated May 29, 2015. The BLM received a letter from the Wyoming Governor dated July 29, 2015. The Governor's Office advised the BLM the Proposed RMP had a number of inconsistencies and provided recommendations. The recommendations had been raised during public participation and included questions regarding air and water quality and conformance with the Wyoming Governor's Core Area Strategy for GRSG conservation. The BLM State Director accepted some of the recommendations, did not accept others, and advised the Governor of his decision in writing.

3.2 Public Involvement

The public involvement process, consultation, and coordination conducted for the RMP are described in Chapter 5 of the Proposed RMP Amendments and Final EIS. As required by regulation, public scoping meetings were conducted following the publication of the Notice of Intent to prepare an EIS in the Federal Register on May 28, 2010.

A Notice of Availability (NOA) for the Draft RMPA/EIS was published in the Federal Register on December 27, 2013. The NOA initiated a 90-day public comment period. The BLM held a total of six public comment open houses for the Draft RMPA/EIS in Douglas, Casper, Laramie, Pinedale, Rock Springs, and Rawlins, Wyoming on February 4, 5, 6 and 11, 12, 13, 2014, respectively. All meetings were from 5:00 to 7:00 PM. The comments received on the Draft RMPA and EIS and BLM's responses were summarized in Appendix O of the Proposed RMP and Final EIS.

The NOA for the Proposed RMP and Final EIS was published on May 29, 2015 initiating a 30 day public protest period and a 60 day Governors Consistency review period. The 30-day protest period ended on June 29, 2015. Twenty-five protest letters were received.

4. Plan Implementation

4.1 Implementing the Plan

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

Immediate Decisions: These decisions are the lands use planning decisions that go into effect upon signature of the ROD. These include goals, objectives, allowable uses and management direction, such as the allocation of lands as open or closed for saleable mineral sales, lands open with stipulations for oil and gas leasing, and OHV area designations. These decisions require no additional analysis and guide future land management actions and subsequent site specific implementation decisions in the planning area. Proposals for future actions such as oil and gas leasing, land adjustments, and other allocation-based actions will be reviewed against these land use plan decisions to determine if the proposal is in conformance with the plan.

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

- Current and projected resource needs and demands
- National BLM management direction
- Available resources.

General Implementation Schedule of "One-Time" Decisions: Future Decisions discussed in this ARMPA will be implemented over a period of years depending on budget and staff availability. After issuing the ROD, BLM will prepare implementation plans that establish tentative timeframes for completion of "one-time" decisions identified in the ARMPA. These actions require additional site specific decision-making and analysis.

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

Appendix D includes a framework for implementation of GRSG conservation measures within the planning area. This framework is focused specifically on GRSG and does not address implementation of other resource programs. Implementation for GRSG includes a combination of permitting activities under the auspices of management direction provided in the ARMPA, undertaking specific activities in pursuit of the goals and objectives identified in the plan, and monitoring of sagebrush habitat and populations.

4.2 Maintaining the Plan

The ARMPA can be maintained as necessary to reflect minor changes in data. Plan maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan and/or clarifying previously approved decisions.

The BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data and/or support new management techniques, best management practices, and scientific principles. Where monitoring shows land use plan actions or best management practices are not effective, plan maintenance or plan amendment may be initiated, as appropriate.

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions.

4.3 Changing the Plan

The ARMPA may be changed, should conditions warrant, through a plan amendment or plan revision process. A plan amendment may become necessary if major changes are needed or to consider a proposal or action that is not in conformance with the plan. The results of monitoring, evaluation of new data, or policy changes and changing public needs might also provide a need for a plan amendment. If several areas of the plan become

outdated or otherwise obsolete, a plan revision may become necessary. Plan amendments and revisions are accomplished with public input and the appropriate level of environmental analysis conducted according to the Council on Environmental Quality procedures for implementation of the National Environmental Policy Act.

As new occupied sage-grouse habitat is found or occurs either through additional inventories or expansion into previously unoccupied habitat, the BLM will coordinate with the SGIT and USFWS and use the best scientific information available to revise GRSG habitat management area maps and associated management decisions through plan maintenance or plan amendment/revisions, as appropriate.

4.4 Plan Evaluation, Monitoring, and Adaptive Management

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

The BLM will use land use plan evaluations to determine if the decisions in the ARMPA, supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Evaluations will follow the protocols established by the BLM Land Use Planning Handbook (H-1601-1) or other appropriate guidance in effect at the time the evaluation is initiated. The Monitoring Framework for this ARMPA can be found in Appendix D.

The ARMPA also includes an adaptive management strategy that includes soft and hard triggers and responses. These triggers are not specific to any particular project, but identify habitat and population thresholds. Triggers are based on the two key metrics that are being monitored during the life of the ARMPA - habitat loss and/or population declines. Soft triggers represent an intermediate threshold indicating that management changes are needed at the implementation level to address habitat or population losses. If a soft trigger is tripped during the life of the plans, the BLM's response is to apply more conservative or restrictive conservation measures to mitigate for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions. These adjustments will be made to preclude tripping a "hard" trigger (which signals more severe habitat loss or population declines). Hard triggers represent a threshold indicating that immediate action is necessary to stop a severe deviation from sage-grouse conservation objectives set forth in the ARMPA.

In the event that new scientific information becomes available demonstrating that the hard wired response would be insufficient to stop a severe deviation from sage-grouse conservation objectives set forth in the ARMPA, the BLM will implement interim management direction to ensure that conservation options are not foreclosed. The BLM will also undertake any appropriate plan amendments or revision if necessary. More information regarding the ARMPA's adaptive management strategy can be found in Appendix D and outlined in the adaptive management direction in Section 2.2 of this ARMPA.

5. Glossary

Active Lek: Any lek that has been attended by male GRSG during the strutting season.

Activity Planning: Site-specific planning that precedes development. This is the most detailed level of Bureau of Land Management (BLM) planning. An activity plan details management of one or more resources on a specific site. Examples are allotment management plans and recreation area management plans. Activity plans implement decisions made in the Resource Management Plan (RMP).

Actual Use: Where, how many, what kind or class of livestock, and how long livestock graze on an allotment or on a portion or pasture of an allotment.

Adaptive Management: A systematic process for continually improving management policies and practices by learning from the outcomes of actions over time. It employs management programs that are designed to continuously compare selected policies or practices and is an integrated method for addressing uncertainty that focuses on implementing actions, thoroughly monitoring results, and modifying actions when warranted. It recognizes that the complex interrelationships of physical, biological, and social components of the ecosystem and how they would react to land management practices are often not fully understood when land-use management plans are developed.

Additionality: The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project (BLM Manual Section 1794).

Administrative Access: Access for resource management and administrative purposes such as fire suppression, cadastral surveys, permit compliance, law enforcement, and military in the performance of their official duty, or other access needed to manage BLM-administered lands or uses.

Age Class: A distinct aggregation of trees originating from a single natural event or regeneration activity, or grouping of trees, e.g. 10-year age class, as used in inventory or management.

Allotment: An area of land designated and managed for livestock grazing. Allotments generally consist of BLM-administered lands but may include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Allotment Management Plan (AMP): A documented program developed as an activity plan, consistent with the definition at 43 USC 1702(k), that focuses on, and contains the necessary instructions for, management of livestock grazing on specified public lands to meet resource condition, sustained yield, multiple use, economic, and other objectives.

Ambient (noise level): Sometimes called background noise level, reference sound level, or room noise level is the background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

Amendment: The process for considering or making changes in the terms, conditions, and decisions of approved RMPs or Management Framework Plans using the prescribed provisions for resource management planning appropriate to the proposed action or circumstances. Usually only one or two issues are considered that involve only a portion of the planning area.

Animal Unit: Considered to be one mature cow of about 1,000 pounds (450 kg), either dry or with calf up to 6 months of age, or their equivalent, consuming about 26 pounds of forage/day on an oven dry basis.

Animal Unit Month (AUM): The amount of forage required for an animal unit for a period of 1 month.

Anthropogenic Disturbances: Human-created features that include but are 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.

Application for Permit to Drill (APD): An application to drill a well submitted by a lessee or operator to the BLM. The APD consists of a Drilling Plan that discusses downhole specifications and procedures (reviewed by the BLM) and a Surface Use Plan of Operations that examines surface uses, including access roads, well site layout, cut and fill diagrams, reclamation procedures, production facility locations, etc.

Area of Critical Environmental Concern (ACEC): Areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands.

Assessment: The act of evaluating and interpreting data and information for a defined purpose.

Authorized/Authorized Use: This is an activity (i.e., resource use) occurring on the public lands that is either explicitly or implicitly recognized and legalized by law or regulation. This term may refer to those activities occurring on the public lands for which the BLM or other appropriate authority (e.g., Congress for RS 2477 rights-of-way, FERC for major, interstate rights-of-way), has issued a formal authorization document (e.g., livestock grazing lease/permit; right-of-way grant; coal lease; oil and gas permit to drill; etc.). Formal authorized uses can involve both commercial and noncommercial activity, facility placement, or event. These authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved land use plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting, etc.) require no formal BLM authorization.

Authorized Officer: Any employee of the BLM to whom authority has been delegated to perform the duties described.

Available Lands (Oil and Gas): Any lands subject to oil and gas leasing under the Minerals Leasing Act.

Avoid: To circumvent, or bypass, an impact altogether by not taking a certain action, or parts or an action. Therefore, the term "avoid" does not necessarily prohibit a proposed activity, but it may require the relocation of an action, or the total redesign of an action to eliminate any potential impacts resulting from it.

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

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: 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.

Baseline Population Levels (sage-grouse populations): Established by pre-disturbance surveys, reference surveys, and accounting for regional and statewide trends in population levels. Population counts in Wyoming are maintained by the Wyoming Game and Fish Department (WGFD). Estimates of population are determined based upon survey protocols determined by the WGFD, and are implemented consistently throughout the state. Population counts are tracked for individual leks and then calculated for each core area (PHMA).

Best Management Practices (BMPs): A suite of techniques that guide or may be applied to management actions to aide in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a planning decision unless the plans specify that they are mandatory. BMPs may be updated or modified without a plan amendment (BLM Manual Handbook H-1601-1).

Big Game: Large species of wildlife that are hunted, such as elk, deer, bighorn sheep, moose, and pronghorn.

Biological Assessment (BA): The gathering and evaluation of information on proposed endangered and threatened species and critical habitat and proposed critical habitat. Required when a management action potentially conflicts with endangered or threatened species, the BA is the way federal agencies enter into formal consultation with the U.S. Fish and Wildlife Service and describe a proposed action and the consequences to the species from the action.

Biological Diversity: The variety of life forms and processes within an area. Included in the consideration of diversity are the complexities of genetic variation, number and distribution of species, and the ways in which the variety of biologic communities interact and function.

Biologically Significant Unit: A geographical/spatial area within GRSG habitat that contains relevant and important habitats 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.

Biotic: All the natural living organisms in a planning area and their life processes.

Candidate Species: Any species included in the *Federal Register* notice of review that are being considered for listing as threatened or endangered by the U.S. Fish and Wildlife Service.

Canopy: The uppermost layer consisting of the crowns of trees or shrubs in a forest or woodland.

Casual Use: Casual use means activities ordinarily resulting in no or negligible disturbance of the public lands, resources, or improvements for example, activities that do not involve the use of mechanized earth-moving equipment or explosives or, in areas designated as closed to OHVs, do not involve the use of motorized vehicles. This can also be activities occurring by chance or taking place at irregular intervals without ceremony or formality. For examples for rights of ways see 43 CFR 2801.5.The definition related to 3809-surface management of locatable minerals is found at 43 CFR 3809.5. Other activities which do not unduly disturb surface resources. If, however, the authorized officer determines that appreciable impacts to surface resources may occur, he/she may require the potential applicant to obtain a land use authorization permit with appropriate terms and conditions under the provision of part 2920 of this title.

Catastrophic Fire: A fire that has significant negative impacts on the health and productivity of ecosystems and other human values.

Channel: An open conduit either naturally or artificially created that periodically or continuously transports moving water (and, in natural systems, also transports sediment, nutrients, and woody material) or forms a connecting link between two bodies of water.

Checkerboard: This term refers to a land ownership pattern of alternating sections of Federal owned lands with private or State owned lands for 20 miles on either side of a land grant railroad (e.g. Union Pacific, Northern Pacific, etc.). On land status maps this alternating ownership is either delineated by color coding or alphabetic code resulting in a "checkerboard" visual pattern.

Cherry-stemmed/Cherry-stemming: This term refers to a narrow, linear, intrusion or extrusion of a delineated block of Federal lands resulting in what appears on a map as a boundary inlet or peninsula. Although this term may be used in any resource program, the most common use is in relation to dead-end road intrusions along WSA boundaries.

Closed: Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

Closed Area or Trail: Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. The use of off-road vehicles in closed areas may be allowed only with the approval of the authorized officer.

"Closed" Designation (OHV): Under this designation, vehicle travel is prohibited yearlong with no exceptions other than for emergency vehicles in emergency situations. Access by means other than motorized vehicles is permitted.

Closed Road: A road or segment of road that is restricted from certain types of use during certain seasons of the year. The prohibited use and the time period of closure are specified.

Code of Federal Regulations (CFR): The official, legal tabulation or regulations directing Federal Government activities.

Collaboration: Working together, sometimes with individuals or groups of opposing points a view, to reach a common agreement.

Co-locate: Installation of new linear improvements (e.g., equipment or facilities) on or within existing linear improvements.

Commercial Forestland: Forestland that is now producing or is capable of producing at least 20 cubic feet of wood fiber per acre per year from commercial coniferous tree species and that has met certain economic, environmental, or multiple use criteria for inclusion in the commercial forestland base.

Commodity: An economic good such as a product of agriculture or mining.

Common Variety Minerals: Category of minerals including varieties of sand, gravel, stone, pumicite, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood; authorized under the 1947 Materials Act and the 1955 Multiple Surface Use Act for sale as "salable minerals."

Communication Tower Site: A site that includes 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, passive reflector).

Community: An assemblage of plant, animal, and/or human populations in a common spatial arrangement.

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

Compensatory Mitigation Projects: Specific, on-the-ground actions to improve and/or protect habitats (e.g., chemical vegetation treatments, land acquisitions, conservation easements).

Compensatory Mitigation Sites: The durable areas where compensatory mitigation projects will occur.

Condition of Approval: Condition or provision (requirement) under which an application for a permit to drill or sundry notice is approved.

Conformance: That a proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan.

Connectivity: Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape. Connectivity is the opposite of fragmentation.

Connectivity Habitat or Areas: Sage-grouse connectivity habitat (as defined in the WY EO 2015-4) is one of two components of Priority Habitat Management Areas. Connectivity habitats are state-designated areas identified as the most important for GRSG and include known, migration or connectivity corridors. It does not include breeding, late brood-rearing, or winter concentration areas. Sage-grouse core habitat plus connectivity habitat together make up sage-grouse priority habitat.

Conservation Plan: The recorded decisions of a landowner or operator, cooperating with a conservation district, on how the landowner or operator plans, within practical limits, to use his/her land according to its capability and to treat it according to its needs for maintenance or improvement of the soil, water, animal, plant, and air resources.

Conservation Measures: Measures to protect, enhance, and/or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. Conservation measures for GRSG will be developed in collaboration with the State of Wyoming and other applicable stakeholders.

Consistency: The proposed land use plan does not conflict with officially approved plans, programs, and policies of tribes, other federal agencies, and state, and local governments to the extent practical within Federal law, regulation, and policy.

Controlled Surface Use (CSU): 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. The stipulation identifies the location protected, activities prohibited or restricted, and the resources protected. The extent of protection may range from a limited area for only one activity to all uses. Typically used in use authorizations. For the protected resource, some activities may be prohibited while others are allowed. Activities may be allowed but only under certain conditions. Examples include (1) seismic operations are prohibited within a certain distance of an unstable resource (i.e., historic structure) and (2) only tracked construction vehicles are allowed access to the site (see also Stipulation Category).

Core Habitat: Sage-grouse core habitat (as defined in the WY EO 2015-4) is one of two components of Sage-grouse Priority Habitat Management Areas. Core habitats are state-designated areas identified as the most important for GRSG and include breeding, late brood-rearing, winter concentration areas. It does not include known, migration or connectivity corridors. Sage-grouse core habitat plus connectivity habitat together make up Sage-grouse Priority Habitat Management Areas.

Corridor: A linear strip of land which has ecological, technical, economic, social, or similar advantages over other areas for the present or future location of transportation or utility rights-of-way within its boundaries.

Council On Environmental Quality (CEQ): An advisory council to the President of the United States established by the national Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Cover: Cover is any part of an animal's environment that provides protection and enhances the survival or reproduction of the animal. Wildlife cover has 2 components:

- It provides shelter from adverse weather conditions (winter or thermal cover), and
- It provides protection from predators (screening or escape cover) (Yarrow 2009).

Critical Habitat: An area occupied by a threatened or endangered species "on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection." These irreplaceable and vital areas are designated as critical by the Secretary of the Interior for the survival and recovery of listed threatened and endangered species.

Crucial Habitat: Any particular range or habitat component that directly limits a community, population, or subpopulation to reproduce, and maintain itself at a certain level over the long term.

Crucial Winter Range: The portion of the winter range to which a wildlife species is confined during periods of heaviest snow cover. Any portion of winter range that is the determining factor in a population's ability to maintain and reproduce itself at a certain level over the long term may be crucial winter range.

Cultural Heritage Resource: A fragile and nonrenewable remnant of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, or natural features.

Cultural Resource Inventory: A descriptive listing and documentation, including photographs and maps, of cultural resources. Processes involved are locating, identifying, and recording of sites, structures, buildings, objects, and districts through library and archival research; collecting information from persons knowledgeable about cultural resources; and conducting on-the-ground field surveys of varying levels of intensity. (See also Cultural Resource Inventory Classes.)

Cultural Resource Inventory Classes: A class I inventory is a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature, and a management-focused, interpretive, narrative overview, and synthesis of the data. The overview also defines regional research questions and treatment options

A class II probabilistic field survey is a statistically based sample survey, designed to aid in characterizing the probable density, diversity, and distribution of cultural properties in an area, to develop and test predictive models, and to answer certain kinds of research questions. Within individual sample units, survey aims, methods, and intensity are the same as those applied in class III survey.

Class III intensive survey describes the distribution of properties in an area; determines the number, location and condition of properties; determines the types of properties actually present within the area; permits classification of individual properties; and records the physical extent of specific properties.

Cultural Resource Site (cultural property): A physical location of past human activities or events. Cultural properties are extremely variable in size, ranging from the location of a single cultural resource feature to a cluster of cultural resource structures with associated objects.

Cumulative Impact (Effect): The impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Deferred/Deferred Use: To set-aside, or postpone, a particular resource use(s) or activity(ies) on the public lands to a later time. Generally when this term is used the period of the deferral is specified. Deferments sometimes follow the sequence timeframe of associated serial actions (e.g., action B will be deferred until action A is completed, etc.).

Designated Roads and Trails: Those roads and trails that are specifically identified by the BLM as the only allowable routes for motor vehicle travel in the specific area involved. Travel on designated roads and trails may be allowed seasonally or yearlong. Additional roads or trails may be constructed and authorized for travel as need dictates in conformance with the land use plan or activity plan.

Desired Condition: Alluvial stream channels (i.e., those not formed in bedrock) are considered to be physically functioning properly when they can adjust their form and gradient, over a period of time, to transport the water, wood, and sediment being delivered to them. They are resilient to disturbance. Channel cross-section form is generally maintained, even with lateral migration of the channel, or is moving toward

a form that allows for improved channel function. Instream levels of fine sediment are within a natural range except for short periods of time after disturbance. Stream bank stability reflects stream type and potential.

Desired Future Condition: A future land or resource condition that achieves a set of compatible multi-resource goals and objectives.

Desired Plant Community: The vegetation community that provides the vegetation attributes required for meeting or exceeding RMP vegetation objectives. The desired vegetation community must be within an ecological site's capability to produce these attributes through natural succession, management action, or both (BLM Wyoming Instruction Memorandum 91-290, May 29, 1991).

Destroyed Lek: A formerly active lek site and surrounding sagebrush habitat that has been destroyed and is no longer suitable for sage-grouse breeding. A lek site that has been strip-mined, paved, converted to cropland or undergone other long-term habitat type conversion is considered destroyed.

Developed Recreation: Recreation that requires facilities, resulting in concentrated use of an area. An example of a developed recreational site is a campground. Facilities might include roads, parking lots, picnic tables, restrooms, drinking water, and buildings.

Development: Active drilling and production of wells.

Development Area: Areas primarily leased with active drilling and wells capable of production in payable quantities.

Direct Control: This is associated with urban development and high value areas and is defined as the immediate and complete extinguishments of a wildfire. Direct control also includes exposure protection in which critical resources, such as houses, are shielded from the fire.

Direct Impacts (Effects): Direct impacts are caused by the action and occur at the same time and place.

Directional Drilling (Oil and Gas): Drilling boreholes with the directional course of the hole planned before drilling. Such holes are usually drilled with rotary equipment at an angle to the vertical and are useful in avoiding obstacles or in reaching side areas or the mineral estate beneath a restricted surface.

Discharge (Water): The rate of flow or volume of water flowing in a stream at a given place or within a given period of time.

Discovery: The knowledge of the presence of valuable minerals within or close enough to a location to justify a reasonable belief in their existence. Discovery is extremely important to public lands mining because the Mining Law of 1872 provides that mining claims can be located only after a discovery is made.

Dispersal: The movement, usually one way and on any time scale, of plants or animals from their point of origin to another location where they subsequently produce offspring.

Dispersed Recreation: Recreational use outside developed recreational sites. This includes activities such as scenic driving, hiking, bicycling, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation in primitive environments.

Disposal: Transfer of ownership of a tract of public land from the United States to another party through sale, exchange, or transfer under the Recreation and Public Purposes Act, Small Tracts Act, Bankhead-Jones Farm Tenant Act, General Exchange Act or other appropriate authorities.

Disruptive Activities: Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to existing animal or human populations occurring at a specific location and/or time. In this

context, disruptive activity/activities refers to those 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. This term does not apply to the physical disturbance of the land surface, vegetation, or features. When administered as a land use restriction (e.g., No Disruptive Activities), this term may prohibit or limit the physical presence of sound above ambient levels, light beyond background levels, and/or the nearness of people and their activities. The term is commonly used in conjunction with protecting wildlife during crucial life stages (e.g., breeding, nesting, birthing, etc.), although it could apply to any resource value on the public lands. The use of this land use restriction is not intended to prohibit all activity or authorized uses. For actions other than those taken for human health and safety, regulatory compliance or emergency, an activity is "disruptive" if the activity would require people and/or the structure or activity to be present in these habitats for a duration of more than 1 hour during any one 24-hour period during the applicable season in the site-specific area.

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.

Disturbance: A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.

Diurnal: Describes a cyclic event recurring daily; or the nature or habit of an organism to be active during daylight hours.

Diversity: The distribution and relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

Documented Lek: Any lek that has been identified as active, inactive, unknown, or occupied.

Drainage (Oil and Gas): 1) Drainage occurs when oil and gas migrates in the subsurface from areas of high pressure to areas of lower pressure, such as is found near a producing well. 2) Production of migrated oil and gas without compensation to the owner and/or lessee from whose estate the hydrocarbons moved is called drainage.

Durability (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 (BLM Manual Section 1794).

Easement: A right held by a person or agency to make limited use of another's real property for access or other purposes.

Ecological Site: A kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in that the site has the ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production.

Ecological Site Descriptions (ESDs): Are reports that provide detailed information about a particular kind of land - a distinctive Ecological Site. ESDs provide land managers the information needed for evaluating the land as to suitability for various land-uses, capability to respond to different management activities or disturbance processes, and ability to sustain productivity over the long term. ESD information is presented in four major sections: 1) Site Characteristics - physiographic, climate, soil, and water features; 2) Plant Communities – plant species, vegetation states, and ecological dynamics; 3) Site Interpretations – management alternatives for the site and its related resources; 4) Supporting Information – relevant literature, information and data sources.

Ecosystem: A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

Emergency Use: These are activities occurring on the public lands outside the scope of normal resource use and operations, and which require immediate attention. Emergency use activities are typically driven by imminent concerns for human health and safety, or protection of property (e.g., wildfire suppression, HAZMAT response, disease outbreaks, etc.). Emergency use is typically exempted from other land use restrictions, with the exercise of reasonable and prudent care.

Endangered Species: Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range, as defined by the U.S. Fish and Wildlife Service under the authority of the Endangered Species Act of 1973.

Enhance: The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the plant community to meet sage-grouse objectives.

Environmental Assessment (EA): Concise, analytical documents, authorized by the National Environmental Policy Act (NEPA) of 1969, that are prepared with public participation to determine whether an Environmental Impact Statement (EIS) is needed for a particular project or action. If an EA determines an EIS is not needed, the EA becomes the document allowing agency compliance with NEPA requirements.

Environmental Impact Statement (EIS): A document required by the National Environmental Policy Act (NEPA) for certain actions "significantly affecting the quality of the human environment." An EIS is a tool for decision making. It describes the positive and negative environmental effects of a proposed action, and it usually also lists one or more alternative actions that may be chosen instead of the action described in the EIS.

Ephemeral Channels/Streams: A defined channel formed in response to ephemeral surface flow conditions. Defined channels typically can be identified by an abrupt bank along a water flow path with evidence of scouring, sorting, and/or vegetation removal during flood events. These channels generally form in concave erosional features such as gullies, ravines, swales, etc. These channels are above the water table at all times, and lose water to the groundwater system.

Ephemeral Surface Waters: Streams, lakes, or other surface water bodies that have open water *only* during or immediately after periods of rainfall or snowmelt. These water bodies are above the water table at all times, and lose water to the groundwater system.

Erosion: The wearing away of the land surface by running water, wind, ice, or other geological agents.

Essential Nexus: The degree of the actions demanded by the permit conditions bears the required relationship to the projected impact of the proposed development.

Evaporation Pond: An industrial containment area designed to allow briny water to evaporate by using solar energy and wind.

Exception: A one-time exemption for a particular site within the leasehold; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the leasehold. An exception is a limited type of waiver (H-1624-1 – Planning for Fluid Mineral Resources).

Exclusion Areas: An area on the public lands where a certain activity(ies) is prohibited to insure protection of other resource values present on the site. The term is frequently used in reference to lands/realty actions and proposals (e.g., rights-of-way, etc.), but is not unique to lands and realty program activities. This restriction is functionally analogous to the phrase "no surface occupancy" used by the oil and gas program,

and is applied as an absolute condition to those affected activities. The less restrictive analogous term is avoidance area.

Exotic Species: Species which occur in a given place, area, or region as the result of direct or indirect, deliberate or accidental introduction of the species by humans, and for which introduction has permitted the species to cross a natural barrier to dispersal.

Exploration: Active drilling and geophysical operations to:

a. Determine the presence of the mineral resource; or

b. Determine the extent of the reservoir or mineral deposit.

Extensive Recreation Management Area (ERMA): BLM administrative units where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured types of recreation activities. These areas consist of the remainder of land areas not included in Special Recreation Management Areas (SRMA).

Facility, Energy and Mining: Human constructed assets designed and created to serve a particular function and to afford a particular convenience or service that is affixed to a specific location, such as oil and gas well pads and associated infrastructure.

Feasible: Something is capable of being accomplished.

Federal Lands: As used in this document, lands owned by the United States, without reference to how the lands were acquired or what federal agency administers the lands. The term includes mineral estates or coal estates underlying private surface but excludes lands held by the United States in trust for Indians, Aleuts, or Eskimos. (See also Public Land.)

Federal Land Policy and Management Act of 1976 (FLPMA): Public Law 94-579. October 21, 1976, often referred to as the BLM' s "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy, and basic management guidance.

Federal Register (FR): A daily publication that reports Presidential and federal agency documents.

Fire Management: The integration of knowledge of fire protection, prescribed fire, and fire ecology into multiple use planning, decisionmaking, and land management activities. Fire management places fire in perspective within the context of overall land management objectives.

Fire Management Plan (FMP): A strategic plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved land use plan. The plan is supplemented by operational procedures such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans.

Fire Regime Condition Class: A measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities. The fire regime condition classes defined as follows:

- **Condition Class 1:** Fire regimes are within a historical range, and the risk of losing key ecosystem components from fire is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.

- **Condition Class 2:** Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components from fire is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, frequency, intensity, severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range.
- **Condition Class 3:** Fire regimes have been significantly altered from their historical ranges. The risk of losing key ecosystem components from fire is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.

Fire Suppression: All work and activities associated with fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

Fishery: Habitat that supports the propagation and maintenance of fish.

Flight Distance (Displacement Distance): That to which a person can approach a wild animal without causing it to flee.

Floodplain: The relatively flat area or lowlands adjoining river channel constructed by the river in the present climate and overflowed at times of high discharge.

Flow Connected Surface Feature: A surface waterbody, including, but not limited to, a river, stream, lake, or pond, whose water is hydrologically connected to surface or groundwater.

Fluid Minerals: Oil, gas, coalbed natural gas, and geothermal resources.

Forage: All browse and herbaceous foods available to grazing animals that may be grazed or harvested for feeding.

Forage Reserve: A determination for an allotment, or a portion of an allotment, on which there is no current term permit obligation for some or all of the estimated livestock grazing capacity and where it has been determined to use the available forage for management flexibility when there is a loss of forage availability on other allotments because of factors such as drought, hail, or fire (either prescribed or wild).

Forest Crown Cover: The proportion of forested land area covered by tree crowns.

Forest Management: The practical application of scientific, economic, and social principals to the administration and working of a forest for specified objectives.

Forest Resource: A community of one or more forest tree species in varying stages of ecological succession that constitutes the primary dominant life form by which certain understory plants and forest dwelling animals are associated, and in whole or part, dependent (Schiche 2003).

Formation Fracturing: See Hydraulic Fracturing.

Frac: See Hydraulic Fracturing.

Fuelwood: Wood that is round, split, or sawn and/or otherwise generally refuse material cut into short lengths or chipped for burning.

Full Suppression: A fire suppression strategy requiring immediate and continuous aggressive attack to attain the suppression objectives with the least damage to property or loss of resources in the most cost-effective

manner possible. Such actions may include control, containment, or confinement of wildfire to attain land management objectives.

Furbearing Animal: Badger, beaver, bobcat, marten, mink, muskrat, and weasel.

Game Birds: Grouse, partridge, pheasant, ptarmigan, quail, wild turkey, and migratory game birds.

Geophysical Operation: Prospecting for minerals or mineral fuels by measuring the various physical properties of the rocks and interpreting the results in terms of geologic features or the economic deposits sought. Physical measurements are taken at the surface, concerning the differences in the density, electrical resistance, or magnetic properties of the rocks. There are four main methods employed in geophysical prospecting: gravitational, magnetic, electrical, and seismic, with several modifications of each.

General Habitat Management Areas: Occupied (seasonal or year-round) habitat outside of priority habitat. These areas have been identified by the BLM in coordination with respective state wildlife agencies.

Goal: A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

Grazing Preference: Grazing preference means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee (43 CFR 4100.0-5).

Grazing Relinquishment: The voluntary and permanent surrender by an existing permittee or lessee, (with concurrence of any base property lienholder(s)), of their priority (preference) to use livestock forage allocation on public land as well as their permission to use this forage. Relinquishments do not require the consent or approval by the BLM. The BLM's receipt of a relinquishment is not a decision to close areas to livestock grazing.

Grazing System: Scheduled grazing use and non-use of an allotment to reach identified goals or objectives by improving the quality and quantity of vegetation. Include, but are not limited to, developing pastures, utilization levels, grazing rotations, timing and duration of use periods, and necessary range improvements.

Guidelines (BLM): Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory. Guidelines for grazing administration must conform to 43 CFR 4180.2 (H-1601-1, Land Use Planning Handbook).

Habitat: An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle. In wildlife management, the major components of habitat are food, water, cover and the adequate juxtaposition of the three.

Habitat Destruction (Loss/Conversion): The ultimate form of a habitat impact. The destruction of a natural ecosystem through its conversion to another land use. In each conversion, the original natural characteristics of the land are eliminated, while the associated habitat values are modified to varying degrees.

Habitat Fragmentation (Breakdown Partitioning): A form of habitat impact which often only destroys part of a habitat, leaving other portions of the habitat intact. Depending on the scale of concern, many instances of local habitat destruction are better thought of as habitat fragmentation, or partitioning. Such fragmentation can be the principal cause of loss of "area-sensitive" species (e.g., grizzly bears, sage-grouse, etc.), and is the most serious threat to biological diversity.

Habitat Management Plan (HMP): An officially approved activity plan for a specific geographic area of public land. An HMP identifies wildlife habitat and related objectives, defines the sequence of actions to be implemented to achieve the objectives, and outlines procedures for evaluating accomplishments.

Habitat Type: Place where an animal or plant normally lives, often characterized by a dominant plant form or physical characteristic.

Hazard Reduction: Any treatment of a hazard that reduces the threat of ignition and fire intensity or rate of spread.

Hazardous Fuels: Excessive live or dead wildland fuel accumulations that increase the potential for uncharacteristically intense wildland fire and decrease the capability to protect life, property, and natural resources.

Healthy Stream Channel Form and Function: Stream channel function includes both physical and biological attributes, and applies to intermittent and perennial water bodies. Function includes water transport, sediment transport, and transport of wood and chemicals (including nutrients) delivered to streams. Physical attributes of streams include landscape setting, cross-section form, longitudinal gradient, particle size distribution, and response/adjustment to disturbance. Biological attributes of streams include nutrient dynamics, biological productivity, and aquatic habitat characteristics.

Herbaceous: Pertaining to or characteristic of an herb (fleshy-stem plant) as distinguished from the woody tissue of shrubs and trees.

Herd Area: The geographic area identified as having been used by a herd as its habitat in 1971.

Herd Management Area (HMA): Herd Management Areas shall be established for the maintenance of wild horse and burro herds. In delineating each herd management area, the authorized officer shall consider the appropriate management level for the herd, the habitat requirements of the animals, the relationships with other uses of the public and adjacent private lands, and the constraints contained in CFR 4710.4."

Hibernaculum: A shelter occupied during the winter by a dormant animal.

High-voltage Transmission Line: An electrical power line that is 100 kilovolts or larger.

Historic: Referring to the time after written records or after the Europeans first came and wrote about the people and events in America.

Historical Lek: (Former term for "unoccupied lek".) There are two types of unoccupied leks, "destroyed" or "abandoned." Management protection will not be afforded to unoccupied leks.

Historical Raptor Nests: Any raptor nest or site that has been destroyed but was historically recorded and documented. Temporal and spatial stipulations will not apply.

Home Range: The area in which an animal travels in the scope of natural activities.

Holder: An individual or entity that holds a valid special use authorization.

Hydraulic Fracturing: The breaking or parting of reservoir rock through the use of injected fluids. Hydraulic fracturing is a method of stimulating production or injection at a specific depth in a formation of low permeability by inducing fractures and fissures in the formation by applying high fluid pressure to its face. Fluids (liquids, gases, foams, and emulsions) are injected into reservoir rock at pressures that exceed the strength of the rock and overcome internal stresses of the rock. The fluid enters the formation and parts or fractures it. Sand grains, aluminum pellets, glass beads, or similar materials are carried in suspension by the

fluid into the fractures. These are called propping agents or proppants. When the pressure is released at the surface, the fracturing fluid returns to the wellbore as the fractures partially close on the proppants, leaving paths with increased permeability for fluid flow.

Identified 100-Year Flood Plains: Those areas delineated by the Federal Emergency Management Agency as having a 1 percent probability of being inundated in any given year.

Impacts (or Effects): Consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

Implementation Plan: A site-specific plan written to implement decisions made in a land use plan. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with "activity" plans. Examples of implementation plans include interdisciplinary management plans, habitat management plans, and allotment management plans.

Important Habitats: Areas of especially high value for a diversity of wildlife or areas that provide certain habitat elements essential to the existence of certain groups of wildlife.

Inactive Lek: Any lek where sufficient data suggests that there was no strutting activity throughout a strutting season. Absence of strutting grouse during a single visit is insufficient documentation to establish that a lek is inactive. This designation requires documentation of either: 1) an absence of sage-grouses on the lek during at least two ground surveys separated by at least seven days. These surveys must be conducted under ideal conditions (April 1-May 7 (or other appropriate date based on local conditions), no precipitation, light or no wind, half-hour before sunrise to one hour after sunrise) or 2) a ground check of the exact known lek site late in the strutting season (after April 15) that fails to find any sign (tracks, droppings, feathers) of strutting activity. Data collected by aerial surveys should not be used to designate inactive status as the aerial survey may actually disrupt activities.

Indicators: Factors that describe resource condition and change and can help the BLM determine trends over time.

Indicator Species: Species that indicate the presence of certain environmental conditions, seral stages, or previous treatment. One or more plant species selected to indicate a certain level of grazing use (See Management Indicator Species).

Indirect Impacts (Effects): Indirect impacts are caused by the action and occur later in time or further removed in distance.

Infiltration Pond: An industrial containment area designed to allow groundwater recharge and the downward entry of water into the soil or other material. Infiltration impoundments constructed in-channel may allow for overflow under given storm events.

Initial Attack: The actions taken by the first resources to arrive at a wildfire to protect lives and property, and prevent further extension of the fire.

In-kind Mitigation: The replacement or substitution of resources or values that are of the same type and kind as those impacted.

Integrated Ranch Planning: A method for ranch planning that takes a holistic look at all elements of the ranching operations, including strategic and tactical planning, rather than approaching planning as several separate enterprises.

Intensive Management: Use of proper distance restrictions, seasonal or timing restrictions, rehabilitation standards, and the application of the Wyoming Mitigation Guidelines for Surface-disturbing and Disruptive Activities to adequately protect the resources for which the intensive management is applied. Intensive management actions would be applied with the goal of maintaining or enhancing sensitive resources (plant communities, wildlife habitats, archeological or paleontological resources, etc.).

Interdisciplinary Team: A group of individuals with different training, representing the physical sciences, social sciences, and environmental design arts, assembled to solve a problem or perform a task. The members of the team proceed to a solution with frequent interaction so that each discipline may provide insights on any stage of the problem, and disciplines may combine to provide new solutions. The number and disciplines of the members preparing the plan vary with circumstances. A member may represent one or more discipline or program interest.

Interior Board of Land Appeals (IBLA): The Department of the Interior, Office of Hearings and Appeals, board that acts for the Secretary of the Interior in responding to appeals of decisions on the use and disposition of public lands and resources. Because the IBLA acts for and on behalf of the Secretary of the Interior, its decisions usually represent the Department's final decision but are subject to the courts.

Intermittent Surface Waters: Streams, lakes, or other surface water bodies that generally flow or contain during a portion of the year when they receive water from springs or during runoff from rain or snow. In the case of streams, this term can also refer to spatially noncontinuous flow because of groundwater interaction (i.e., portions of the stream are generally dry and portions are generally wet in most years).

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.

Irreversible and Irretrievable Commitment of Resources: An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time. An irreversible commitment of a resource is one that cannot be reversed. NEPA §102(2)C requires a discussion of any irreversible or irretrievable commitments of resources that would be involved in a proposal should it be implemented.

Isolated Parcel: An individual parcel of land that may share a corner, but does not have a common border with another parcel.

Jurisdiction: The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority but not necessarily ownership.

Land Locked: This term refers to the situation when any parcel of land (i.e., private, State, or Federal) has no legal access without crossing another ownership due to the existing land ownership pattern.

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.

Land Tenure Adjustment(s) (BLM): This term refers to a change in land ownership patterns, or legal status, to improve their administrative manageability and/or their usefulness to the public.

Land Use Plan: A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land-use-plan-level decisions developed through the planning process, regardless of the scale at which the decisions were developed.

Large Scale Anthropogenic Disturbances: Features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

Late Brood Rearing Area: Habitat includes mesic sagebrush and mixed shrub communities, wet meadows, and riparian habitats as well as some agricultural lands (e.g. alfalfa fields, etc.).

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

Lease: Section 302 of the Federal Land Policy and Management Act of 1976 provides the BLM's authority to issue leases for the use, occupancy, and development of public lands. Leases are issued for purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, native or introduced species harvesting, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and non-irrigation facilities. The regulations establishing procedures for processing these leases and permits are found in 43 CFR 2920.

Lease Notice: Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders.

Lease Stipulations (Oil and Gas): Additional specific terms and conditions that modify the lease rights or change the manner in which an operation may be conducted.

Lek: A traditional courtship display area attended by male GRSG in or adjacent to sagebrush dominated habitat. A lek is designated based on observations of two or more male sage-grouse engaged in courtship displays. For management purposes, leks with less than five males observed strutting should be confirmed active for two years to meet the definition of a lek (Connelly et al 2000, Connelly et al. 2003, 2004).

Lek Complex: A lek or group of leks within 2.5 km (1.5 mi) of each other between which male sage-grouse may interchange from one day to the next. Fidelity to leks has been well documented. Visits to multiple leks are most common among yearlings and less frequent for adult males, suggesting an age-related period of establishment (Connelly et al. 2004).

Lek Count: A census technique that documents the actual number of male sage-grouse observed attending a lek complex.

Lek Management Status: Based on its annual status, a lek is assigned to one of the following categories for management purposes (BLM 2012):

- Occupied lek – A lek that has been active during at least one strutting season within the prior ten years. Occupied leks are protected through prescribed management actions during surface disturbing activities.
- Unoccupied lek – There are two types of unoccupied leks, "destroyed" and "abandoned." Unoccupied leks are not protected during surface disturbing activities.
- Abandoned lek – A lek in otherwise suitable habitat that has not been active during a period of 10 consecutive years. To be designated abandoned, a lek must be "inactive" (see Lek Annual Status) in at least four non-consecutive strutting seasons spanning the ten years. The site of an "abandoned" lek should

be surveyed at least once every ten years to determine whether it has been re-occupied by Greater Sage-Grouse.

- Undetermined lek – Any lek that has not been documented active in the last ten years, but survey information is insufficient to designate the lek as unoccupied. Undetermined leks are not protected through prescribed management actions during surface disturbing activities until sufficient documentation is obtained to confirm the lek is occupied. Use of this status should be rare (see Lek Annual Status).

Lek Perimeter: The outer perimeter of a lek and any associated satellites. Perimeters should be mapped by experienced observers using established protocols for all leks with larger leks receiving higher priority. Perimeters may vary over time as population levels or habitat and weather conditions change. However, changes to mapped perimeters should occur infrequently and only if grouse use consistently (2+ years) demonstrates the existing perimeter to be inaccurate.

Lek Survey: Where lek counts are not feasible, surveys are the only reliable means to monitor population trends. Lek surveys are designed principally to determine whether leks are active or inactive, requiring as few as one visit to a lek. Obtaining accurate counts of the numbers of males attending is not essential. Lek surveys involve substantially less effort and time than lek counts. They can also be done from a fixed-wing aircraft or helicopter. Lek surveys can be conducted from the initiation of strutting in early March until early-mid May, depending on the site and spring weather.

Lentic: Wetland or riparian areas with standing water habitat such as lakes, ponds, seeps, bogs, and meadows.

Lessee: A person or entity authorized to use and occupy land under a specific instrument identified as a lease. Leases are also used for certain mineral leasable activities.

Level of Acceptable Change: Federally established threshold of acceptable change to maintain conditions of acid-sensitive lakes.

Level of Concern: Federally established atmospheric deposition threshold concentration amount related to undesirable effects on the ecosystem.

Light Grazing: Light grazing is related to forage utilization, and can be expressed as livestock grazing that consumes no more than about 30% of the current year's growth of forage plants. Light refers to the effect on the landscape, which is measured through utilization monitoring. You may reduce the number of animals by 30% and still not achieve "light grazing", if those animals that remain consume more than 30% of the current year's forage growth.

Limited Designation (OHV): Vehicle travel is restricted in some manner in the area. Restrictions could take many forms, but the most common are “limited to existing roads and trails;” which allows vehicle travel only on roads that were in existence at the time of designation or have been authorized for future uses; “limited to designated roads and trails,” which allows vehicle travel only on roads that BLM designates by signs; and “seasonal restrictions,” which restricts vehicle travel in an area or on certain roads during some portion of the year (such as wintertime vehicle restrictions to protect big game on crucial winter range).

Under “limited to existing or designated roads and trails,” vehicle travel off roads is permitted only to accomplish necessary tasks and only if such travel would not result in resource damage. Necessary tasks are defined as work requiring the use of a motor vehicle. Examples include picking up big game kills, repairing range improvements, managing livestock, and conducting mineral activities, as described in the provisions of 43 CFR 3809.1-3.

Livestock Conversion: A discretionary action changing permitted use from one class of animal to another.

Locatable Minerals: Mineral disposable under the General Mining Act of 1872, as amended, that were not excepted in later legislation. They include hard rock, placer, industrial minerals, and uncommon varieties of rock found on public domain lands (see definition at 43 CFR 3830.10 and examples of minerals that are to be located by lode or placer claim at 43 CFR 3832.20).

Lotic: Riparian areas with running water habitat such as rivers, streams, creeks, and springs.

Lynx Analysis Unit (LAU): An LAU is a project analysis unit upon which direct, indirect, and cumulative effects analysis are performed. LAU boundaries should remain constant to facilitate planning and allow effective monitoring of habitat changes over time. An LAU is an area of at least the size used by an individual lynx, from about 25 to 50 square miles.

Major Pipeline: A pipeline that is 24 inches or more in outside-pipe diameter (Mineral Leasing Act of 1920 30 U.S.C. § 181; 36 CFR 251.54(f)(1)).

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

Master Development Plans: A set of information common to multiple planned wells, including drilling plans, Surface Use Plans of Operations, and plans for future production.

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 (as 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), and salable (subject to the Materials Act of 1947).

Mineral Entry: The filing of a claim on public land to obtain the right to any minerals it may contain.

Mineral Estate: The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Mineral Location: The act of marking out and establishing rights by a claimant for mining purposes in accordance with the Mining Law of 1872, as amended.

Mineral Materials: Materials such as common varieties of sand, stone, gravel, 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; pursuant to the mineral material regulations at 43 CFR Part 3600 or 36 CFR 228 Subpart C.

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

Mining Claim: A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

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

Modification (Oil and Gas Leasing): A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. May maintain, increase, or decrease the level of environmental protection. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied (H-1624-1 – Planning for Fluid Mineral Resources).

Monitoring: The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. This process must be conducted over time in order to determine whether or not management objectives are being met. Monitoring also includes observations to evaluate baseline (i.e., pre-activity) conditions, evaluation of whether activities met desired goals and permit requirements (implementation monitoring), and evaluation of how well mitigation measures protected resource conditions (effectiveness monitoring).

Moraine: An accumulation of boulders, stones, and other earth debris carried and deposited by a glacier.

Multiple Use: Management of the public lands and their various resource values so that they are used in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output, as provided in the Multiple Use Sustained Yield Act.

National Ambient Air Quality Standards (NAAQS): The allowable concentrations of air pollutants in the ambient (public outdoor) air. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including, but not limited to, effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.

National Environmental Policy Act of 1969 (NEPA): The National Environmental Policy Act (NEPA) [42 U.S.C. 4321 et seq.] was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

National Historic Trail: A congressionally designated trail that is an extended, long-distance trail, not necessarily managed as continuous, that follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of a National Historic Trail is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. A National Historic Trail is managed in a manner to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail.

National Register of Historic Places (NRHP): The official list of United States government's historic districts, sites, buildings, structures, and objects deemed worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Register of Historic Places is a national program to

coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

National Scenic Trail: A congressionally designated trail that is a continuous and uninterrupted extended, long-distance trail so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant resources, qualities, values, and associated settings and the primary use or uses of the areas through which such trails may pass. National Scenic Trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms that exhibit significant characteristics of the physiographic regions of the Nation.

National Wild and Scenic Rivers (WSR): The system of congressionally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition.

Native Plant Species: Species that were found here before European settlement, and consequently are in balance with these ecosystems because they have well developed parasites, predators, and pollinators.

Necessary Tasks: Administrative duties or work requiring the use of motor vehicles, such as retrieving big game kills, repairing range improvements, management of livestock, geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), or performing mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809. Mining claimants may exercise their rights to cause more than 5 acres disturbance as part of exploring for or mining locatable minerals 36 CFR 3809.5.

Net Conservation Gain: The actual benefit or gain above baseline conditions.

No Surface Occupancy (NSO): Land use allocation or approval restriction used when surface disturbance cannot be mitigated and must be prohibited. The land use decision or stipulation identifies the NSO area and allowed or excepted uses in the area. NSO stipulations are used on oil and gas leases where drilling and/or operations impacts cannot be adequately mitigated but fluid mineral resources may be recovered by directional drilling. Exclusion Area designations in the Realty Program are NSO land use decisions. This stipulation can be used to prohibit other surface disturbing or disruptive activities such as commercial recreational activities, mining, and timber harvest (see also Stipulation Category) (IBWY-2007-029).

Noncommercial Forestland: Land that is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial species; also, land that is capable of producing only noncommercial tree species.

Non-Point Source Pollution: A pollution source that is not specific in location. The source of the discharge is dispersed, not well defined, or constant.

[3809] Notice-level Mining Activities: A notice is required for exploration activity greater than casual use that will cause surface disturbance of 5 acres or less on BLM-administered lands and split-estate. The content of the notice will determine whether the operation qualifies as a notice-level operation and will not cause undue and unnecessary degradation (43 CFR 3809.21).

Noxious Weeds: A plant species designated by federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States.

Objective: A description of a desired outcome for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement (H-1601-1, Land Use Planning Handbook).

Occupied Lek: A lek that has been active during at least one strutting season within the prior 10 years.

Occupied Habitat: The area currently used by GRSG during any point in its life history. This use may be for a short amount of time (i.e., migration) or used throughout the year. In addition, this includes areas used inconsistently and/or seasonally.

Off-Highway Vehicle (OHV): Any motorized tracked or wheeled vehicle designed for cross-country travel over any type of natural terrain. Exclusions (from Executive Order 11644, as amended by Executive Order 11989) are non-amphibious registered motorboats; any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; any vehicle whose use is expressly authorized by the authorizing officer or otherwise officially approved; vehicles in official use; and any combat support vehicle in times of national defense emergencies.

Off-Highway Vehicle Management Designations: Designations that apply to all off-road vehicles regardless of the purposes for which they are being used. Emergency vehicles are excluded. The Off Road Vehicle (ORV) designation definitions have been developed in cooperation with representatives of the U.S. Forest Service, U.S. Park Service, and BLM State and District personnel. It is recognized that there are differences between OHVs and over-the-snow vehicles in terms of use and impact. Therefore, travel by over-the-snow vehicles is permitted off existing routes and in all open or limited areas (unless otherwise specifically limited or closed to over-the-snow vehicles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife. Designations include—

Closed: Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

Open: Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands.

Limited:

1) Vehicle travel is permitted only on existing roads and vehicle routes that were in existence prior to the date of designation in the *Federal Register*. Vehicle travel off existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and/or widening of existing routes is not allowed without prior written agency approval.
2) Vehicle travel is permitted only on roads and vehicle routes designated by BLM. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations are posted as follows:
    a) Vehicle route is open to vehicular travel.
    b) Vehicle route is closed to vehicular travel.
3) Vehicle travel is limited by number or type of vehicle. Designations are posted as follows:
    a) Vehicle route limited to 4-wheel drive vehicles only.
    b) Vehicle route is limited to motorbikes only.
    c) Area is closed to over-the-snow vehicles.
4) Vehicle travel is limited to licensed or permitted use.
5) Vehicle travel is limited to time or season of use. Posted as follows:
    a) Seasonal closure to all motor vehicles (the approximate dates of closure are indicated).
6) Where specialized restrictions are necessary to meet resources management objectives, other limitations may also be developed. Posted as follows: Recreational OHV Play Areas.

Offsite Mitigation: Compensating for resource impacts by replacing or providing substitute resources or habitat at a different location than the project area.

Oil and Gas Lease: A legal contract granting the right to explore for, develop and produce oil and gas resources for a specific period of time under certain agreed-upon terms and conditions.

Open Designation (OHV): Under this designation, vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner that will not cause significant undue damage to the soil, wildlife, vegetation, cultural resources, or other important resources on the public lands.

Out-of-kind Mitigation: The replacement or substitution of resources or values that are not the same type and kind as those impacted, but are related or similar.

Overstory: The portion of vegetation in a forest that forms the uppermost foliage layer.

Paleontological Resources (Fossils): The physical remains or traces of plants and animals preserved in soils and sedimentary rock formations.

Particulate Matter (PM): Fine liquid or solid particles suspended in the air and consisting of dust, smoke, mist, fumes, and compounds containing sulfur, nitrogen, and metals.

Partners: an association of individuals or groups with like interests due to the scope or location of a project on federal lands or in regard to a federal permitting process.

Parturition Area: Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

Passerine Birds: Birds of the order Passeriformes, which includes perching birds and songbirds such as blackbirds, jays, finches, warblers, and sparrows. More than half of all birds belong to this order.

Perennial Surface Waters: Streams, lakes, or other surface water bodies that flow or contain water year-round in most years. These water bodies are primarily fed by groundwater during the low-flow season. These systems would generally *only* dry up during drought conditions. In the case of streams, this term can refer to the persistence of surface waters along a channel (i.e., few reaches where the infiltration into the stream aquifer exceeds the flow).

Permittee: A person or company authorized to use or occupy BLM-administered land.

Persistent Woodlands: Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

Personal Income: The sum of wage and salary disbursements, other labor income, proprietors' income, rental income of persons, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

pH: A measure of acidity or hydrogen ion activity. Neutral is pH 7.0. All values below 7.0 are acidic, and all values above 7.0 are alkaline.

Plan: A document that contains a set of comprehensive, long-range decisions concerning the use and management of BLM-administered resources in a specific geographic area.

Plan of Operations: A [3809] Plan of Operations is required for all locatable mining exploration activity greater than 5 acres or surface disturbance greater than casual use on certain special category lands. Special category lands are described under 43 CFR 3809.11(c) and include such lands as designated Areas of Critical

Environmental Concern, lands within the National Wilderness Preservation System, and areas closed to off-road vehicles, among others. In addition, a plan of operations is required for activity greater than casual use on lands patented under the Stock Raising Homestead Act with Federal minerals where the operator does not have the written consent of the surface owner (43 CFR 3814 & 3809.31(d)). The Plan of operations needs to be filed in the BLM field office with jurisdiction over the land involved. The Plan of Operations does not need to be on a particular form but must address the information required by 43 CFR 3809.401(b). A Plan of Operation is required if 'any operation is causing or will likely cause significant disturbance of surface resources' (36 CFR 228.4).

Planning Area: A geographical area for which land use and resource management plans are developed and maintained.

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

Planning Base: Law, regulation, policy, land use plan decisions (e.g., RMPs, Resource Management Plan Amendments, and Management Framework Plan Amendments), NEPA documents (e.g., EISs Administrative Determinations, EAs, and Categorical Exclusion Reviews), and supporting data (e.g., automated databases, research, and evaluations).

Point Source Pollution: Any discernable, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged to a receiving water body, wetland, etc.

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

Population: A group of organisms, all of the same species, which occupies a particular area. The term is used to refer to the number of individuals of a species within an ecosystem or of any group of like individuals.

Potential Wild And Scenic River: A body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, nills, and small lakes that possess free-flowing condition and outstandingly remarkable values and therefore may have potential for addition to the National System.

Preference: See Grazing Preference.

Prehistoric: Information about past events prior to the recording of events in writing. The period of prehistory differs around the world depending upon when written records became common in a region.

Prescribed Fire: Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist and NEPA requirements, where applicable, must be met before ignition.

Prescribed Fire Plan (Burn Plan): This document provides the prescribed fire burn boss information needed to implement an individual prescribed fire project.

Prescription: Measurable criteria that define conditions under which a prescribed fire or wildland fire for resource benefit may be used to guide selection of appropriate management responses and indicate other required actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations.

Primary Paved Road: This road provides access between major points and includes major and minor highways.

Primary Unpaved Road: This road is regularly maintained, wide enough for at least two vehicles, provides access between major points, and serves a large area branching from it.

Primitive Road (BLM): A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards (H-8342-1, Travel and Transportation Management Handbook).

Priority Areas for Conservation (PAC): Key habitats identified by state sage-grouse conservation plans (for each state that has such a plan), or through other sage-grouse conservation efforts (e.g., the current BLM planning effort for GRSG).

Priority Habitat: Sage-grouse priority habitats (as defined in the NTT report, pg. 7) are areas that have the highest conservation value to maintaining or increasing Sage-grouse populations. These areas would include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors. Sage-grouse priority habitat includes core plus connectivity habitat.

Priority Habitat Management Area: Sage-grouse priority habitats are areas that have the highest conservation value to maintaining or increasing Sage-grouse populations. These areas would include breeding, late brood-rearing, winter concentration areas, and where known, migration or connectivity corridors. Sage-grouse Priority Habitat Management Area includes core plus connectivity habitat.

Produced Water: Groundwater produced in conjunction with the extraction of minerals.

Proper Functioning Condition (PFC): A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flow, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary to fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation (Prichard et al. 1998). There are two categories of wetlands—lentic areas, which are created by a stable water table such as playas, fens, around lakes, marshes etc., and lotic areas, which are in riverine environments.

Proposed Species: Species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior as determined by the US Fish and Wildlife Service. A proposed rule has been published in the *Federal Register.*

Public Domain: The term applied to any or all of those areas of land ceded to the Federal Government by the Original States and to such other lands as were later acquired by treaty, purchase or cession, and are disposed of only under the authority of Congress.

Public Lands: As used in this document, federally owned surface or mineral estate specifically administered by BLM.

Range Improvement: The term range improvement means any activity, structure or program on or relating to rangelands which is designed to improve production of forage, change vegetative composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock and wildlife. The term includes, but is not limited to, structures, treatment projects, and use of mechanical means to accomplish the desired results.

Range Trend: The direction of change in range condition over time, either toward or away from desired management objectives.

Rangeland: Land on which the indigenous (climax or natural potential) vegetation is predominantly grasses, grass-like plants, forbs, or shrubs and is managed as a natural ecosystem. If plants are introduced, they are managed similarly. Rangelands include natural grasslands, savannas, shrublands, many deserts, tundras, alpine communities, marshes and meadows.

Raptor: Bird of prey with sharp talons and strongly curved beaks such as hawks, owls, vultures, ravens, and eagles.

Raptor Concentration Area (RCA): A localized area where raptors congregate that may provide thermal protection, increased forage availability, and a minimal level of stress-inducing disturbances.

Reasonably Foreseeable Development (RFD): A projection of likely exploration, development, and production of oil and gas within a study area based on existing and credible geologic data, technology, economics, and activity trends.

Reclamation: 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.).

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.).

Recreation Opportunity Spectrum (ROS) Classes: A planning process that provides a framework for defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for experiences are arranged along a continuum or spectrum of six classes: primitive, back country, middle country, front country, rural, and urban. The resulting analysis defines specific geographic areas on the ground, each of which encompasses one of the six classes.

Reference State: The reference state is the state where the functional capacities represented by soil/site stability, hydrologic function, and biotic integrity are performing at an optimum level under the natural disturbance regime. This state usually includes, but is not limited to, what is often referred to as the potential natural plant community.

Required Design Features: Required Design Features (RDF) are required for certain activities in priority GRSG habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:

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

Research Natural Area (RNA): A physical or biological unit in which current natural conditions are maintained as much as possible. These conditions are ordinarily achieved by allowing natural, physical, and biological processes to prevail without human intervention. However, under unusual circumstances,

deliberate manipulation may be utilized to maintain the unique feature that the RNA was established to protect.

Reserve Common Allotment: An area which is designated in the land use plan as available for livestock grazing but reserved as an area available for use as an alternative to grazing in another allotment in order to facilitate rangeland restoration treatments and recovery from natural disturbances such as drought or wildfire. The reserve common allotment would provide needed flexibility that would help the agency apply temporary rest from grazing where vegetation treatments and/or management would be most effective.

Residual Impacts: Impacts from an authorized land use or implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

Response to Wildland Fire: Specific actions taken in response to a wildland fire to implement protection and fire use objectives (WO IM 2009-112 which transmitted and adopted *Guidance for Implementation of Federal Wildland Fire Management Policy* dated February 13, 2009).

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 sage-grouse. 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.

Resource Damage: Damage to any natural or cultural resources that results in impacts such as erosion, water pollution, degradation of vegetation, loss of archeological resources, or the spread of weeds.

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

Restriction/Restricted Use: A limitation or constraint 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: Public 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 (36 CFR 251.51). A ROW grant (BLM) is an authorization to use a specific piece of public land for a specific project, such as roads, pipelines, transmission lines, and communication sites. The grant authorizes rights and privileges for a specific use of the land for a specific period of time.

Right-of-Way Corridor: A parcel of land (often linear in character) that has been identified through the land use planning process as being a preferred location for existing and future utility rights-of-way and that is suitable to accommodate one or more rights-of-way that are similar, identical, or compatible. Corridors may accommodate **multiple pipelines** (such as for oil and gas), **electricity transmission lines**, and **related infrastructure**, such as access and maintenance roads, compressors, pumping stations, and other structures.

Riparian: Referring to or relating to areas adjacent to water or influenced by free water associated with streams or rivers on geologic surfaces occupying the lowest position in the watershed. (See definition for Lentic and Lotic). (See also Wetland/Riparian.)

Riparian Area: A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian

areas (See BLM Manual 1737). Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

Riparian Communities: Communities of vegetation associated with either open water or wetlands. Examples are cottonwood and willow communities, meadows, aspens near water sources, and other trees, grasses, forbs, and shrubs associated with water.

River Eligibility: Qualification of a river for inclusion into the National Wild and Scenic Rivers System through the determination (professional judgment) that it is free-flowing and, with its adjacent land area, possesses at least one river-related value considered to be outstandingly remarkable.

Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use (H-8342-1, Travel and Transportation Management Handbook).

Road Category Level: Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria. There are five maintenance levels:

- **Level 1:** Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period is one year or longer. Basic custodial maintenance is performed.
- **Level 2:** Assigned to roads open for use by high-clearance vehicles. Passenger car traffic is not a consideration.
- **Level 3:** Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.
- **Level 4:** Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
- **Level 5:** Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-lane and paved or aggregate-surfaced with dust abatement.

Roadless Areas: Undeveloped areas that meet eligibility criteria for wilderness consideration under the Wilderness Act (36 CFR 219.17).

Rough Proportionality: The required dedication is related both in nature and extent to the proposed development's impact.

Runoff: The total stream discharge of water, including both surface and subsurface flow, usually expressed in acre-feet of water yield.

Sagebrush Focal Area: Areas identified by the USFWS that represent recognized “strongholds” for GRSG that have been noted and referenced as having the highest densities of GRSG and other criteria important for the persistence of GRSG.

Sage-grouse Breeding Habitats: Breeding habitats are composed of leks, nesting and early broad rearing habitats.

Sage-grouse Core Habitat: (as defined in WY EO 2015-4) is one of two components of Sage-Grouse Priority Habitat Management Areas. Core habitats are state-designated areas identified as the most important for Greater Sage-grouse and include breeding, late brood-rearing, and wintering seasonal habitat. It does not include known migration or connectivity corridors.

Sage-grouse Winter Habitats: During winter, sage-grouse feed almost exclusively on sagebrush leaves and buds. Suitable winter habitat requires sagebrush above snow. Sage-grouse tend to select wintering sites

where sagebrush is 10 to 14 inches above the snow. Sagebrush canopy cover used by sage-grouse above the snow may range from 10 to 30%. Foraging areas tend to be on flat to generally southwest facing slopes and windswept ridges.

Salable Minerals: Minerals that may be disposed of through sales and free use permits under the Materials Act of 1947, as amended. Included are common varieties of sand, stone, gravel, and clay (See also Mineral Materials).

Scenic Integrity: An indicator of an areas visual appearance, either stated as an objective or current condition, related to the characteristic landscape."

Scenic Resource: Attributes, characteristics, and features of landscapes that provide varying responses from, and varying degrees of benefits to, humans.

Scenic Quality: The relative worth of a landscape from a visual perception point of view. Scenic quality is rated as Class A (high), Class B (medium), or Class C (low).

Scoping: The process of identifying the range of issues, management concerns, preliminary alternatives, and other components of an environmental impact statement or land-use planning document. It involves both internal and public viewpoints.

Season of Use: A livestock grazing permit term and condition identifying the time during which livestock graze a given area to achieve management and resource condition objectives.

Secondary Paved Road: This is a paved road, not a highway, with other roads of lesser quality branching from it. It is not usually striped and connects primary roads and major points.

Secondary Unpaved Road: This one-lane road is regularly maintained with other roads of lesser quality branching from it. It usually connects primary roads and major points.

Section 110 Inventory: Refers to Section 110 of the National Historic Preservation Act of 1966, as amended. Section 110 of the Act directs federal agencies to establish a preservation program for the identification, evaluation, and nomination to the National Register of Historic Places, cultural properties that are under the agencies' jurisdiction or control. Section 110 also directs federal agencies to coordinate their respective preservation programs with the State Historic Preservation Offices, local governments, and Indian tribes (110.a.2.D).

Sensitive Soils: Land areas that have a moderate to very high hazard for soil compaction, erosion, or displacement. These soils include, but are limited to, red soils, saline soils, sandy soils, highly calcareous, and shallow.

Sensitive Species: Those species designated by a State Director, usually in cooperation with the State agency responsible for managing the species and state natural heritage programs. They are those species that: (1) could easily become endangered or extinct in a state; (2) are under status review by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service; (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution; (4) are undergoing significant current or predicted downward trends in population or density such that federal listing, proposal, or candidate status may become necessary; (5) typically have small and widely dispersed populations, or (6) inhabit ecological refugia or other specialized or unique habitats.

Seral Stage: The relatively transitory communities that develop under plant succession generally described as early, mid, and late seral stages. The mix of seral or successional stages on the landscape can be the result

of disturbances, topography and soil, climate, uses of the land, management prescriptions, vegetation classification categories, and evaluation procedures.

Shrub: A plant that has persistent woody stems and a relatively low growth habit, and that generally produces several basal shoots instead of a single bole.

Size Class: Tree size recognized by distinct ranges, usually of diameter or height.

Smoke Management: Application of fire intensities and meteorological processes to minimize degradation of air quality during prescribed fires or fires for resource benefit.

Spatial Management: As used in this document, intensive control of the location and level of surface disturbance that is allowed in a particular area.

Special Area Designation: A title conferred on a specified area through the land use planning process, which identifies the area as being in need of special management attention. Examples of special area designations include Special Recreation Management Areas, Areas of Critical Environmental Concern, Special interest area, and Wildlife Habitat Management Areas.

Special Recreation Management Area (SRMA): A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). Both land use plan decisions and subsequent implementing actions for recreation in each SRMA are geared to a strategically identified primary recreation-tourism market – destination, community, or undeveloped, as well as a corresponding and distinguishing recreation management strategy. Recreation settings or natural resource settings are prescribed as part of the land-use allocation decision. Subsequent implementing actions, as identified in the activity planning framework, are proactive and address management, marketing and visitor information, and monitoring and administration.

Special Status Species: Proposed species, listed species, and candidate species under the Endangered Species Act; state-listed species; and BLM State Director-designated sensitive species (see BLM Manual 6840—Special Status Species Policy).

Split Estate: This is the circumstance where the surface of a particular parcel of land is owned by a different party than the minerals underlying the surface. Split estates may have any combination of surface/subsurface owners: Federal/State; Federal/private; State/private; or percentage ownerships. When referring to the split estate ownership on a particular parcel of land, it is generally necessary to describe the surface/subsurface ownership pattern of the parcel.

Standard: A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

Standard Lease Term: The terms incorporated into every oil and gas lease. Standard lease terms require compliance with all laws and regulations to ensure protection of other energy, mineral, and surface resources, such as soil, water, vegetation, cultural, and threatened and endangered species. It is important to recognize that the authorized officer has the authority to modify the siting and design of facilities, control the rate of development and timing of activities as well as require other mitigation under Sections 2 and 6 of the standard lease terms (BLM Form 3100-11 and 43 CFR 3101.1-23).

Stakeholders: Individuals or groups who are involved in or affected by a course of action that is being proposed in a project plan affecting federal lands or a federal permitting process.

State: A state is comprised of an integrated soil and vegetation unit having one or more biological communities that occur on a particular ecological site and that are functionally similar with respect to the three attributes (soil/site stability, hydrologic function, and biotic integrity) under natural disturbance regimes.

State Listed Species: Species proposed for listing or listed by a state in a category implying but not limited to potential endangerment or extinction. Listing is either by legislation or regulation.

Stipulation (General): A term or condition in an agreement, contract, or written authorization.

Stipulation (Oil and Gas): A restriction placed on an oil and gas lease or other use authorization to protect other resources (e.g., a seasonal restriction to protect big game in their winter range or in their calving areas) or land uses and is attached to and made a part of the lease. The restriction precludes or restricts activities.

Stipulation Category: Land use decisions or authorization requirements intended to mitigate impacts of surface disturbing or disruptive activities. These include RMP decisions, oil and gas lease stipulations, conditions of approval, and terms and conditions. These stipulations may prohibit surface use, allow surface use under certain conditions, or allow surface use during certain times (see also No Surface Occupancy, Controlled Surface Use, and Timing Limitation).

Stochastic: Randomly determined event, chance event, a condition determined by predictable processes and a random element.

Strutting Ground: An area used by sage-grouse in early spring for elaborate, ritualized courtship displays. See also Lek.

Substrate: The mineral or organic material that forms the bed of a stream; the base upon which an organism lives; the surface on which a plant or animal grows or is attached.

Succession: The progressive replacement of plant communities on a site which leads to a potential natural plan community, attaining stability.

Suitable Habitat (Habitat Assessment Framework or HAF): is categorized in multiple quality-based descriptions, including marginal and suitable.

-Marginal habitats are described as maintaining 5 to 15 percent sagebrush canopy cover.

-Suitable habitats are described as maintaining 15 to 25 percent sagebrush canopy cover.

Where sagebrush canopy covers would be above or below these percentages, the habitat would be categorized as "unsuitable."

Suitable Sage-Grouse Habitat (Wyoming Executive Order): is within the mapped occupied range of the species and maintains greater than 5 percent canopy sagebrush cover or sagebrush escape cover (i.e., >10% canopy) is within 60 meters of wet meadow, alfalfa or other suitable forbs areas. Areas below the 5 percent sagebrush canopy cover, and outside of the wet meadow example, would be considered "unsuitable" for GRSG.

Surface Discharge: The release of produced water onto the unconfined land surface or into an existing drainage system.

Surface Disturbance: Suitable habitat is considered disturbed when it is removed and unavailable for immediate sage-grouse use.

a. Long-term removal occurs when habitat is physically removed through activities that replace suitable habitat with long term occupancy of unsuitable habitat such as a road, power line, well pad

or active mine. Long-term removal may also result from any activities that cause soil mixing, soil removal, and exposure of the soil to erosive processes.

b. Short–term removal occurs when vegetation is removed in small areas, but restored to suitable habitat within a few years (< 5) of disturbance, such as a successfully reclaimed pipeline, or successfully reclaimed drill hole or pit.

c. Suitable habitat rendered unusable due to numerous anthropogenic disturbances.

d. Anthropogenic surface disturbance are surface disturbances meeting the above definitions which result from human activities.

e. Activity to be present in these habitats for a duration of more than 1 hour during any one 24-hour period during the application season in the site-specific area.

Surface Disturbing Activities: An action that alters 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; and the conduct of several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be either authorized or prohibited (WY IB-2007-029).

Surface Management: Operations conducted on BLM administered lands pursuant to the 43 CFR Subpart 3809 regulations. The three levels of operations under these regulations are defined in this glossary include Casual Use, Notice and Plan of Operations. Use and Occupancy of mining claims pursuant to 43 CFR Subpart 3715 that is reasonably incident to Notices and Plans of Operations may also take place pursuant to review and approval by the BLM Authorized Official (AO).

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(s): These are all the various activities that may be present on the surface or near-surface (e.g., pipelines), of the public lands. It does not refer to those subterranean activities (e.g., underground mining, etc.) occurring on the public lands or federal mineral estate. When administered as a use restriction (e.g., *No Surface Use [NSU]*), 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 exclosure, etc.), and/or administrative sites (e.g., government ware-yard, etc.) where only authorized, agency personnel are admitted.

Take: As defined by the Endangered Species Act, "to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or attempt to engage in any such conduct."

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 BLM's sole responsibility to determine which actions are technically and economically feasible. The BLM 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. (Modified from the CEQ's 40 Most Asked Questions and BLM NEPA Handbook, Section 6.6.3.).

Temporal Management: As used in this document, intensive control of the period during which BLM will allow activities that are physiologically disturbing or disruptive to normal wildlife activities such as elk migration.

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.

Temporary/Temporary Use: A relative term that must be considered in the context of the resource values affected and the nature of the resource use/uses/activity/activities taking place. Generally, a temporary activity is considered to be one that is not fixed in place and is of short duration.

Thermal Cover: Cover used by animals to ameliorate the effects of weather. Optimally, thermal cover is provided by a stand of coniferous trees, 30 to 60 acres in size, at least 40 feet tall, with a canopy cover of at least 70 percent.

Threatened Species: Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the *Federal Register* as determined by the US Fish and Wildlife Service and the Secretary of Interior.

Thrust Fault: A reverse fault that is characterized by a low angle of inclination with reference to a horizontal plane.

Timeliness: The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun (BLM Manual Section 1794).

Timing Limitation: A stipulation that prohibits surface disturbing or disruptive activities during specified times to protect identified resource values during sensitive periods (see also Stipulation Category). The stipulation does not apply to the operation or maintenance of production facilities unless the finding analysis demonstrates the continued need for such mitigation and the insufficiency of less stringent, project-specific mitigation measures."

Traditional Cultural Property (TCP) Site: A cultural resource known to be perceived by a specified social and/or cultural group as important in maintaining the cultural identity, heritage, or well-being of the group. In the planning area, this mainly pertains to cultural sites that are sensitive to Native American tribes.

Trail (BLM): Linear routes managed for human-powered, stock, or off-road vehicle forms of transportation, or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles (H-8342-1, Travel and Transportation Management Handbook).

Transfer of Grazing Preference: The BLM's approval of an application to transfer grazing preference from one party to another or from one base property to another, or both. Grazing preference means a superior or priority position against others for the purposes of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee.

Transition: A shift between two states. Transitions are not reversible by simply altering the intensity or direction of factors that produced the change. Instead, they require new inputs such as revegetation or shrub removal. Practices, such as these, that accelerate succession are often expensive to apply.

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.

Trophy Game Animal: Black bear, grizzly bear, or mountain lion.

Turbidity: interference to the passage of light through water due to insoluble particles of soil, organics, microorganisms and other materials.

Unavailable for Leasing: No new oil and gas leases would be sold in areas with this designation.

Undetermined Lek: Any lek that has not been documented active in the last ten years, but survey information is insufficient to designate the lek as unoccupied.

Unitization: Operation of multiple leases as a single lease under a single operator.

Unknown Lek: Leks for which status as active or inactive has not been documented during the course of a strutting season. Except for those leks not scheduled for checks in a particular year, use of this status should be rare. Leks should be checked with enough visits to determine whether it is active or not.

Unoccupied Lek: A lek that has either been "destroyed" or "abandoned."

Unsuitability Criteria: Criteria of the federal coal management program by which lands may be assessed as unsuitable for all or certain stipulated methods of coal mining.

Uplands: Lands at higher elevations than alluvial plains or low stream terraces; all lands outside the riparian-wetland and aquatic zones.

Utility Corridor: A designated parcel of land, either linear or areal in character, which has ecological, technical, economic, social, or similar advantages over other areas for the present and future location of transportation and/or utility rights of way within its boundaries. Utilities include but are not limited to major energy and telecommunications facilities.

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.

Utilization: The proportion of the current year's forage production that is consumed by grazing animals. Utilization is usually expressed as a percentage.

Valid 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, rights-of-way, easements, permits, and licenses. Such rights may have been reserved, acquired, leased, granted, permitted, or otherwise authorized over time.

Vegetative Cover: The proportion of land or ground surface of an area covered by vegetation.

Vegetation Treatments: Management practices that change the vegetation structure to a different stage of development. Vegetation treatment methods include managed fire, prescribed fire, chemical, mechanical, and seeding.

Viability: For purposes of NFMA and its enabling regulations, viability is the availability of habitat that allows a species to persist on landscapes for long-periods (multi-generational) of time. It assumes that populations are abundant (sufficient numbers) and well-distributed (sufficient redundancy of populations) to provide for long-term population persistence on a landscape.

Viewshed: The landscape that can be directly seen under favorable atmospheric conditions from a viewpoint or along a transportation corridor.

Visual Resource: Visible feature of the landscape, such as land, water, vegetation, animals, and other features that make up the scenery of an area.

Visual Resource Management (VRM): The system by which BLM classifies and manages scenic values and visual quality of public lands. The system is based on research that has produced ways of assessing aesthetic qualities of the landscape in objective terms. After inventory and evaluation, lands are given relative visual ratings (management classes), which determine the amount of modification allowed for the basic elements of the landscape.

Visual Resource Management (VRM) Classes: Visual resource management classes define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. The four classes are described below:

- **Class I** provides for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar areas where landscape modification activities should be restricted.
- **Class II** areas are those areas where changes in any of the basic elements (form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape.
- **Class III** includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.
- **Class IV** applies to areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.

Waiver (Oil and Gas): Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold (H-1624-1 – Planning for Fluid Mineral Resources). The authorized officer may waive restrictions if, in coordination with the state wildlife agency, it is determined that the site is no longer considered in the land use plan to be within GRSG priority, sagebrush focal, or general areas, or GRSG are not listed by the U.S. Fish and Wildlife Service as threatened or endangered under the Endangered Species Act.

WAFWA Management Zone GRSG Conservation Team: WAFWA management zones will be used to identify and address cross-state issues, such as regional mitigation and adaptive management monitoring and response, through WAFWA Management Zone GRSG Conservation Teams (Teams). These Teams will convene and respond to issues at the appropriate scale, and will utilize existing coordination and management structures to the extent possible.

Water Disposal Pit: A pit designed under the authority of Onshore Oil and Gas Order #7 for containment of produced water (water produced in conjunction with oil and gas production) as defined in said order. Water disposal pits can be temporary or permanent.

Water Evaporation Pit: A water disposal pit that disposes of produced water via the process of evaporation.

Water Table: The plane surface between the zone of saturation and the zone of aeration. Measured as the elevation where the groundwater surface is at equilibrium with atmospheric pressure. The water table is typically measured with a shallow groundwater well and is equal to the elevation of the water surface in the well. This term is typically not used in reference to confined aquifers or aquifers under pressure. Also known as the groundwater table, groundwater surface, water level, and saturated surface, among others.

Watershed: The area of land, bounded by a divide, that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel (Dunne and Leopold 1978), or to a lake, reservoir, or other body of water. Also called drainage basin or catchment.

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 GRSG.

Wetlands: Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mudflats, and natural ponds.

Wild Horse Herd Management Area: Areas established by the Authorized Officer for the maintenance of wild horse and burro herds. Herd management areas are established in consideration of the appropriate management level for the herd, the habitat requirements of the animals, the relationships with other uses of the public and adjacent private lands, and the constraints contained in 43 CFR 4710.4.

Wild, Scenic, or Recreational River Areas: The three classes of what is traditionally referred to as a "wild and scenic river." Designated river segments are classified as wild, scenic, and/or recreational, but the segments cannot overlap.

- **Wild River Areas:** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- **Scenic River Areas:** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- **Recreational River Areas:** Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Wildcat Well: A well drilled in an area where oil and gas have not been previously discovered.

Wilderness: A congressionally designated area defined by the Wilderness Act of 1964, 16 USC §1131(a), as undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value.

Wilderness Characteristics: These attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2(c) of the Wilderness Act.

Wilderness Study Area (WSA): A roadless area that has been inventoried and found to be wilderness in character, has few human developments, and provides outstanding opportunities for solitude and primitive recreation, as described in Section 603 of the Federal Land Policy and Management Act of 1976 and in Section 2(c) of the Wilderness Act of l964. "A Wilderness...(1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired

condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." When these characteristics were found within a defined boundary, the presence of the wilderness resource was documented and the area was classified as a WSA (BLM Manual 6330).

Wildfire Suppression: An appropriate management response to wildfire, escaped wildland fire use, or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

Wildland Fire: An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out. (National Wildfire Coordinating Group October 2014, http://www.nwcg.gov/pms/pubs/glossary/w.htm).

Wildland Urban Interface (WUI): Healthy Forest Recreation Act 2003: defines wildland urban interface (WUI) (section 101) as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, an area extending; (1) ½ mile from the boundary of an at risk community, or (2) 1 ½ miles when other criteria are met. (e.g., a sustained steep slope or a geographic feature aiding in creating an effective fire break or is condition class III land, or (3) is adjacent to an evacuation route.

Wildlife Services (WS): A division of the USDA Animal and Plant Health Inspection Service (APHIS) that is responsible for the control of animals that are causing economic losses to agriculture, damage to property, or hazards to human health. (See also Animal Damage Control.)

Winter Concentration Areas: During winter, sage-grouse feed almost exclusively on sagebrush leaves and buds. Suitable winter habitat requires sagebrush above snow. Sage-grouse tend to select wintering sites where sagebrush is 10-14 inches above the snow. Sagebrush canopy cover utilized by sage-grouse above the snow may range from 10 to 30 percent. Foraging areas tend to be on flat to generally southwest facing slopes or on ridges where sagebrush height may be less than 10 inches but the snow is routinely blown clear by wind. When these conditions are met, sage-grouse typically gain weight over winter. In most cases winter is not considered limiting to sage-grouse. Under severe winter conditions grouse will often be restricted to tall stands of sagebrush often located on deeper soils in or near drainage basins. Under these conditions winter habitat may be limiting. On a landscape scale, winter habitats should allow sage-grouse access to sagebrush under all snow conditions.

Large numbers of sage-grouse have been documented to persistently use some specific areas which are characterized by the habitat features outlined above. These areas should be delineated as "winter concentration areas." Winter concentration areas do not include all winter habitats used by sage-grouse, nor are they limited to narrowly defined "severe winter relief" habitats. Delineation of these concentration areas is based on determination of the presence of winter habitat characteristics confirmed by repeated observations and sign of large numbers of sage-grouse. The definition of "large" is dependent on whether the overall population is large or small. In core population areas frequent observations of groups of 50+ sage-grouse meet the definition while in marginal populations group size may be 25+. Consultation and coordination with the WGFD is required when delineating winter concentration areas.

Withdrawal: Withholding an area of federal land from settlement, sale, location, or entry under some or all of the general land laws for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of federal land, other than *property* governed by the Federal Property and Administrative Services Act (40 USC 472), from one department, bureau, or agency to another department, bureau, or agency.

Wyoming Connectivity Areas: Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape preventing population isolation. These connectivity areas could provide linkage within a state's sub-populations or between interstate sub populations.

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